



ORANGE COUNTY FIRE AUTHORITY AGENDA

BOARD OF DIRECTORS REGULAR MEETING

Thursday, November 16, 2023
6:00 P.M.

Orange County Fire Authority
Regional Fire Operations and Training Center
Board Room
1 Fire Authority Road
Irvine, CA 92602

Link to:

[Board of Directors Member Roster](#)

NOTICE REGARDING PUBLIC ACCESS AND PARTICIPATION

This meeting is open to the public. Committee members will participate in person. There are several alternative ways to make comments including:

In Person Comments at Meeting: Resolution No. 97-024 established rules of decorum for public meetings held by the Orange County Fire Authority. Resolution No. 97-024 is available from the Clerk of the Authority.

Any member of the public may address the Committee on items within their subject matter jurisdiction, but which are not listed on this agenda during PUBLIC COMMENTS. However, no action may be taken on matters that are not part of the posted agenda. We request comments made on the agenda be made at the time the item is considered and that comments be limited to three minutes per person. Please address your comments to the Committee and do not engage in dialogue with individual Board Members, Authority staff, or members of the audience.

If you wish to speak, please complete a Speaker Form identifying which item(s) you wish to address. Please return the completed form to the Clerk of the Authority prior to item being considered. Speaker Forms are available at the entryway of meeting location.

E-Comments: Alternatively, you may email your written comments to coa@ocfa.org. E-comments will be provided to the Committee members upon receipt and will be part of the meeting record as long as they are received during or before the Committee takes action on an item. Emails related to an item that are received after the item has been acted upon by the Committee will not be considered.

This Agenda contains a brief general description of each item to be considered. Except as otherwise provided by law, no action or discussion shall be taken on any item not appearing on the following Agenda. Unless legally privileged, all supporting documents, including staff reports, and any writings or documents provided to a majority of the board members after the posting of this agenda are available for review at the Orange County Fire Authority Regional Fire Operations & Training Center, 1 Fire Authority Road, Irvine, CA 92602 or you may contact the Clerk of the Authority at (714) 573-6040 Monday through Thursday, and every other Friday from 8 a.m. to 5 p.m. and available online at <http://www.ocfa.org>



In compliance with the Americans with Disabilities Act and [Board of Directors policy](#), if you need reasonable accommodations to participate in this meeting, please complete the [ADA Reasonable Accommodation Form](#) available on the Agency's website and email to COA@ocfa.org, or you may contact the Clerk of the Authority at (714) 573-6040 during regular business hours to submit your request orally. Please notify us at least 48 hours prior to the meeting to enable the Authority to make reasonable arrangements to assure accessibility to the meeting.

CALL TO ORDER by Chair Rossini

INVOCATION by OCFA Chaplain Brett Peterson

PLEDGE OF ALLEGIANCE by Director Chun

ROLL CALL by Clerk of the Authority

REPORTS

- A. Report from Budget and Finance Committee Chair O’Neill**
- B. Report from Human Resources Committee Chair Kalmick**
- C. Report from the Fire Chief**
 - Veteran’s Day
 - Spark of Love
 - Incident Updates
 - Hangar Fire

PUBLIC COMMENTS

Please refer to instructions on how to submit a public comment on Page 1 of this Agenda.

1. PRESENTATION

- A. Recognition of GFOA Annual Comprehensive Financial Report Award**

2. CONSENT CALENDAR

All matters on the consent calendar are considered routine and are to be approved with one motion unless a director or a member of the public requests separate action on a specific item.

- A. Minutes for the Board of Directors Meeting**

Submitted by: Maria D. Huizar, Clerk of the Authority

The record will show that any Director not in attendance at the meeting of the Minutes will be registered as an abstention, unless otherwise indicated.

Recommended Action:

Approve the Minutes for the October 26, 2023, Regular Meeting as submitted.

B. 2024 Board Meetings Schedule

Submitted by: Robert Cortez, Assistant Chief/Business Services Department and Maria D. Huizar, Clerk of the Authority

Recommended Action:

Adopt the proposed Resolution entitled A RESOLUTION OF THE ORANGE COUNTY FIRE AUTHORITY BOARD OF DIRECTORS ESTABLISHING THE REGULAR MEETING DATES FOR CALENDAR YEAR 2024.

C. Updated Cost Reimbursement Equipment Rates

Submitted by: Robert Cortez, Assistant Chief/Business Services Department and Gina Cheung, Accounting Manager

On November 8, 2023, the Budget and Finance Committee reviewed the proposed agenda item and directed staff to place the item on the Board of Directors agenda by a vote of 6-0 (Directors Lumbard, Patel, and Nguyen absent).

Recommended Action:

Approve and adopt the proposed Cost Reimbursement Equipment Rate schedule to be effective October 1, 2023 per Cal OES and FEMA.

D. Organizational Service Level Assessment Update

Submitted by: Lori Zeller, Deputy Chief/Administration & Support Bureau and Robert Cortez, Assistant Chief/Business Services Department

On November 8, 2023, the Budget and Finance Committee reviewed the proposed agenda item and directed staff to place the item on the Board of Directors agenda by a vote of 6-0 (Directors Lumbard, Patel, and Nguyen absent).

Recommended Action:

Receive and file the Organizational Service Level Assessment (SLA) update.

E. Approval of Annual Statement of Investment Policy, Broker/Dealer List and Investment Authorization

Submitted by: Robert Cortez, Assistant Chief/Business Services Department and Tricia Jakubiak, Treasurer/Treasury & Financial Planning

On November 8, 2023, the Budget and Finance Committee reviewed the proposed agenda item and directed staff to place the item on the Board of Directors agenda by a vote of 6-0 (Directors Lumbard, Patel, and Nguyen absent).

Recommended Actions:

1. Review and approve the submitted Investment Policy of the Orange County Fire Authority, to be effective January 1, 2024.
2. Review and approve the Broker/Dealer list for a term of three years through November 30, 2026.

3. Pursuant to Government Code Sections 53601 and 53607, renew delegation of investment authority to the Treasurer for a one-year period, to be effective January 1, 2024.

F. Amendments to the Personnel & Salary Resolution

Submitted by: Lori Zeller, Deputy Chief/Administration & Support Bureau and Stephanie Holloman, Assistant Chief/Human Resources Director

On November 7, 2023, the Human Resources Committee reviewed the proposed agenda item and directed staff to place the item on the Board of Directors agenda by a vote of 6-0 (Director Chun absent).

Recommended Action:

Approve the amendments to the Personnel & Salary Resolution, Resolution Part 3, Article 1, Section 6(B) – Range Adjustment, to reflect a change in the salary range for the classification of Director of Communications.

G. Audited Financial Reports for the Fiscal Year Ended June 30, 2023

Submitted by: Robert Cortez, Assistant Chief/Business Services Department, Gina Cheung, Accounting Manager and Tammie Pickens, General Accounting Manager

On November 8, 2023, the Budget and Finance Committee reviewed the proposed agenda item and directed staff to place the item on the Board of Directors agenda by a vote of 7-0 (Directors Patel and Nguyen absent).

Recommended Actions:

1. Receive and approve the reports.
2. Review the calculations used to determine the fund balance amounts assigned to the capital improvement program and workers' compensation, and confirm the calculations' consistency with the OCFA's Assigned Fund Balance Policy.

H. Quick Reaction Force (QRF) Program

Submitted by: Brian Fennessy, Fire Chief and Tim Perkins, Assistant Chief/South Operations

On November 8, 2023, the Budget and Finance Committee reviewed the proposed agenda item and directed staff to place the item on the Board of Directors agenda by a vote of 7-0 (Directors Patel and Nguyen absent).

Recommended Actions:

1. Approve the Funding Agreement with Southern California Edison in the attached form to accept funding in the amount of \$16,007,672 to fund the fixed-cost portion of the 365-day 2024 Quick Reaction Force Program, with the option to renew for the 2025 Program year (pending SCE funding for 2025).
2. Approve and authorize the Purchasing Manager to enter into new QRF-related vendor contracts, in the forms attached by the individual amounts needed in support of the

- QRF Program so long as the aggregate value does not exceed the program budget (see table).
3. Approve and authorize a FY 2023/24 General Fund (121) budget adjustment to recognize 2024 Program funding from SCE for a revenue increase of \$16,007,672 and to increase appropriations by the same amount. The 2025 Program funding will be reflected in the 2024-25 budget if SCE exercises the option to renew funding.
 4. Approve the updated Cost Reimbursement Rate schedule to include the CH-47 Very Large Helitanker, S-61 Helitanker, and S-76 Helitanker daily stand-by and hourly flight rates, and mobile fire-retardant plant daily stand-by and hourly rates, and hourly rates for Program Manager and Air Tactical Group Supervisors to be effective January 1, 2024.
 5. Adopt an exemption from the California Environmental Quality Act (CEQA) pursuant to Title 14, California Code of Regulations, Section 15301 (Existing Facilities) and direct staff to file a Notice of Exemption.
 6. Authorize the Fire Chief to approve non-substantive changes to the Agreements in items 1, 2 and 3 above, provided such changes are consistent with the purpose of the program described herein, do not increase the total cost of the program in either program year, and are in a form approved by General Counsel.
 7. All the foregoing approvals and authorizations are conditional upon Consolidated Fire Protection District of Los Angeles County and Ventura County Fire Department approval of funding agreements with SCE for the 2024 Quick Reaction Force Program and related agreements.

I. Award of Public Works Contract for Fire Station 4 Restroom Remodel & Upgrades
Submitted by: Jim Ruane, Assistant Chief/Logistics Department and Patrick Bauer, Property & Construction Manager/Logistics Department

Recommended Actions:

1. Approve the plans and specifications for restroom remodel and upgrades at OCFA Fire Station #4.
2. Accept Blackstone Builders Inc. bid dated September 18, 2023.
3. Approve and award the public works contract to Blackstone Builders, Inc. in the amount of \$1,301,593.

3. DISCUSSION CALENDAR

A. Wildfire Resource Center (Camp 18) Site Selection

Submitted by: Jim Ruane, Assistant Chief/Logistics Department, Lori Zeller, Deputy Chief/Administration & Support Bureau and Tim Perkins, Assistant Chief/South Operations

On September 22, 2022, the Board of Directors approved the allocation of \$4.2M in State funding beginning in FY 2022/23 for an expanded Hand Crew program. On November 17, 2022, the Board of Directors approved an amendment to the 5-Year CIP to add \$16.9M in State funding for a new Wildland Resource Center to support the expanded Hand Crew program.

Recommended Action:

Provide direction to staff regarding which site the Board would like to pursue for OCFA’s future Wildfire Resource Center, subject to successful price and term negotiations as directed by the Board, and subject to any applicable due diligence related to the selected site.

RECESS TO CLOSED SESSION

The Brown Act permits legislative bodies to discuss certain matters without members of the public present. The Board of Directors find, based on advice from the General Counsel, that discussion in open session of the following matter will prejudice the position of the Authority on item listed below:

CS1. CONFERENCE WITH LEGAL COUNSEL - SIGNIFICANT EXPOSURE TO LITIGATION pursuant to paragraph (2) and (3) of subdivision (d) of Section 54956.9 of the Government Code: One (1) Case

CS2. CONFERENCE WITH LABOR NEGOTIATOR pursuant to Government Code Section 54957.6

Chief Negotiators: Board Chair Rossini, Board Vice Chair & Budget and Finance Committee Chair O’Neill, and Immediate Past Board Chair Shawver
 Position: Fire Chief

CS3. CONFERENCE WITH REAL PROPERTY NEGOTIATOR pursuant to Government Code Section 54956.8:

Address of Property: APN # 125-165-06 (two portions)
 Negotiator: City of San Clemente City Manager Andy Hall
 Negotiating with: Jim Ruane, Assistant Chief/Logistics Department and Lori Zeller, Deputy Chief/Administration & Support Bureau
 Terms: Price and Terms

CS4. CONFERENCE WITH REAL PROPERTY NEGOTIATOR pursuant to Government Code Section 54956.8:

Address of Property: APN # 678-163-01
 Negotiator: Rancho Mission Viejo, PA 3 Development LLC. President Jeremy Laster
 Negotiating with: Jim Ruane, Assistant Chief/Logistics Department and Lori Zeller, Deputy Chief/Administration & Support Bureau
 Terms: Price and Terms

RECONVENE TO OPEN SESSION

CLOSED SESSION REPORT by General Counsel

3. DISCUSSION CALENDAR (Continued)

B. Amended and Restated Employment Agreement with the Fire Chief

Submitted by: Stephanie Holloman, Assistant Chief/Human Resources Director and David E. Kendig, General Counsel

Recommended Action:

Following the Closed Session negotiations of amendment terms, approve and authorize the Board Chair to execute an amended and restated Employment Agreement with the Fire Chief.

BOARD MEMBER COMMENTS

ADJOURNMENT – The next meeting of the Orange County Fire Authority Board of Directors will be on Thursday, January 25, 2024, at 6:00 p.m.

AFFIDAVIT OF POSTING

I hereby certify under penalty of perjury and as required by the State of California, Government Code § 54954.2(a), that the foregoing Agenda was posted in the lobby and front gate public display case of the Orange County Fire Authority, Regional Fire Operations and Training Center, 1 Fire Authority Road, Irvine, CA, not less than 72 hours prior to the meeting.

Maria D. Huizar, CMC
Clerk of the Authority

FUTURE BOARD AGENDA ITEMS – THREE-MONTH OUTLOOK:

- OCFA JPA Study Session
- Long-Term Liability Study & Accelerated Pension Paydown Plan
- Annual Grants Priorities
- Burn Safety Proclamation
- Mid-Year Financial Report
- UASI Grant Funding

UPCOMING MEETINGS:

Budget & Finance Committee
Legislative & Public Affairs Committee
Executive Committee
Board of Directors

Wednesday, January 10, 2024, 12 noon
Wednesday, January 17, 2024, 12 noon
Thursday, January 25, 2024, 5:30 p.m.
Thursday, January 25, 2024, 6:00 p.m.

MINUTES ORANGE COUNTY FIRE AUTHORITY

**Board of Directors Regular Meeting
Thursday, October 26, 2023
6:00 P.M.**

**Regional Fire Operations and Training Center
Board Room
1 Fire Authority Road
Irvine, CA 92602**

CALL TO ORDER

A regular meeting of the Orange County Fire Authority Board of Directors was called to order on October 26, 2023, at 6:02 p.m. by Chair Vince Rossini.

INVOCATION

The Invocation was led by Chaplain Jim Gwaltney.

PLEDGE OF ALLEGIANCE

Director Patel led the assembly in the Pledge of Allegiance.

ROLL CALL

Vince Rossini, Villa Park, Chair
Phil Bacerra, Santa Ana
Ross Chun, Aliso Viejo
Katrina Foley, County of Orange
Shelley Hasselbrink, Los Alamitos
Gene Hernandez, Yorba Linda
Joe Kalmick, Seal Beach
Chi Charlie Nguyen, Westminster
Bob Ruesch, Mission Viejo
Joshua Sweeney, Laguna Hills
Connor Traut, Buena Park

John O'Neill, Garden Grove, Vice Chair
Troy Bourne, San Juan Capistrano
Chris Duncan, San Clemente
Carol Gamble, Rancho Santa Margarita
Noel Hatch, Laguna Woods
Kelly Jennings, Laguna Niguel
Austin Lumbard, Tustin
Nitesh Patel, La Palma
Dave Shawver, Stanton
Mark Tettermer, Lake Forest
Donald P. Wagner, County of Orange

Absent: Anne Hertz-Mallari, Cypress
John Gabbard, Dana Point

Tammy Kim, Irvine

Also present were:

Fire Chief Brian Fennessy
Deputy Chief TJ McGovern
Assistant Chief Rob Capobianco
Assistant Chief Jim Ruane
Assistant Chief Shane Sherwood
Director of Communications Matt Olson
General Counsel David Kendig

Deputy Chief Lori Zeller
Assistant Chief Robert Cortez
Assistant Chief Lori Smith
Assistant Chief Tim Perkins
Assistant Chief Stephanie Holloman
Clerk of the Authority Maria D. Huizar

REPORTS

A. Report from Budget and Finance Committee Chair O’Neill

Budget and Finance Committee Chair O’Neill reported at its October 17, 2023, Special meeting, the Committee recommended by a unanimous vote to forward the FY 2022 Grant for All Hazard-All Risks Regional Training and Hazardous Materials Support Vehicle to the Board of Directors for consideration and approval of the recommended action.

B. Report from Legislative and Public Affairs Committee Chair Foley

Legislative and Public Affairs Committee Chair Foley reported at its October 18, 2023, Special meeting, the Committee reviewed the 2023 Legislative Summary and recommended the Board of Directors receive and file the report and adopt the bill position changes as described within the report. The Committee also reviewed the Proposed Revisions to the Board Rules of Procedure and Legislative and Public Affairs Protocols, and voted unanimously (4-0) to approve the proposed revisions and place the item on the agenda for the Board of Directors to adopt.

C. Report from the Fire Chief

Fire Chief Fennessy thanked Chaplain Jim Gwaltney for recognizing the 3-year anniversary of the Silverado Fire, where two of our handcrews were critically injured, both continue to be recovering from their numerous surgeries and be supported by their peers of OCFA. He recognized former Legislative and Public Affairs Manager Jay Barkman who after nearly 20 years of service, has taken a new position with the city of Costa Mesa. In his tenure he was instrumental in passage of legislation, securing funding grants, and the coordination of Federal funding. Chief Fennessy noted the 4th Annual Girls Empowerment Camp was hosted by OCFA on October 8-9; OCFA had its annual Station Open Houses with thanks to our professional staff, firefighters, and the Board Members for their participation; the Santa Ana Wind Event Education was held and Night Rescue Hositing Drills; and OCFA held a Graduation of 28 new OCFA Reserve Firefighters. A few weeks ago, a cross-agency group of OCFA leaders visited the historic sites of the Selma to Montgomery Voting Rights March in an immersive leadership experience. Lastly, Chief Fennessy provided the new OCFA Organizational Doctrine which focuses on our Mission-Driven Culture and its core components, intent-based operations and decision making.

PUBLIC COMMENTS (FILE 11.11)

Linda May, Silverado Canyon resident, encouraged uniform communications during mandatory evacuations, and spoke of the displacement of animals when evacuations occur.

1. PRESENTATION

A. Recognition of GFOA Budget Award (FILE 11.09B)

Vice Chair O'Neill, Fire Chief Fennessy, and Assistant Chief Cortez presented the Government Finance Officers Association of the United States and Canada award (GFOA), marking the 15th year of the OCFA Budget and Finance team receiving the award for their professionalism, quality of work of the OCFA's budget presentation, and documented proficiency in several categories.

B. Procurement Award (FILE 11.09B)

Vice Chair O'Neill, Fire Chief Fennessy, and Assistant Chief Cortez presented the 2023 National Procurement Institute's Achievement of Excellence in Procurement (AEP) Award to the Purchasing Department; its 13th consecutive year of receiving this award.

2. CONSENT CALENDAR

On motion of Director Hasselbrink and second by Director Hernandez, approved by consensus 22-0 Agenda Item Nos. 2A-2C (Directors Hertz-Mallari, Kim, and Gabbard absent).

A. Minutes for the Board of Directors (FILE 11.06)

The record will show that any Director not in attendance at the meeting of the Minutes will be registered as an abstention, unless otherwise indicated.

Action: Approve the Minutes for the September 28, 2023, Regular Meeting as submitted.

B. FY 2022 Grant for All Hazard-All Risks Regional Training and Hazardous Materials Support Vehicle (FILE 19.07B)

On October 17, 2023, the Budget and Finance Committee reviewed the proposed agenda item and directed staff to place the item on the Executive Committee agenda by a vote of 6-0 (Directors Bourne, Gabbard, and Hasselbrink absent).

Action: Approve a Budget Adjustment in Fund 121 to increase revenue and expenditures by \$460,563.64 for the grant program award.

C. 2023 Legislative Summary (FILE 12.02E5)

On October 18, 2023, the Legislative and Public Affairs Committee reviewed the proposed agenda item and directed staff to place the item on the Board agenda by a vote of 4-0 (Directors Wagner, Kalmick and Hertz-Mallari absent).

Action: Receive and file the report and adopt recommended bill position changes as described in the report.

3. DISCUSSION CALENDAR

A. Proposed Revisions to the Board Rules of Procedure and Legislative and Public Affairs Committee Protocols (FILE 11.03)

On October 18, 2023, the Legislative and Public Affairs Committee reviewed the proposed agenda item and directed staff to place the item on the Board agenda by a vote of 4-0 (Directors Wagner, Kalmick, and Hertz-Mallari absent).

Director Foley presented the proposed Revisions to the Board Rules of Procedure and Legislative and Public Affairs Committee Protocols as recommended by the Legislative Committee.

A brief discussion followed.

On a substitute motion by Director Wagner and second by Chair Rossini, approved unanimously 22-0 (Directors Hertz-Mallari, Kim, and Gabbard absent) to adopt the proposed Committee schedule of dates by resolution and related amendments to the Legislative and Public Affairs protocol.

BOARD MEMBER COMMENTS

Director Foley requested staff meet with General Counsel to address issue as it related to Agenda item No. 3A.

RECESS TO CLOSED SESSION (FILE 11.15)

General Counsel David Kendig reported the Board would convene to Closed Session for Agenda Item Nos. CS2 and CS3 as they appear on the agenda and include Chair Rossini, Vice Chair O'Neill and Immediate Past Board Chair Shawver.

CS1. CONFERENCE WITH LEGAL COUNSEL - SIGNIFICANT EXPOSURE TO LITIGATION pursuant to paragraph (2) and (3) of subdivision (d) of Section 54956.9 of the Government Code: One (1) Case

CS2. CONFERENCE WITH LABOR NEGOTIATOR pursuant to Government Code Section 54957.6

Chief Negotiators: Board Chair Rossini, Board Vice Chair & Budget and Finance Committee Chair O’Neill, and Immediate Past Board Chair Shawver
Position: Fire Chief

CS3. CONFERENCE WITH LEGAL COUNSEL – POSSIBLE INITIATION OF LITIGATION pursuant to paragraph (4) of subdivision (d) of Section 54956.9 of the Government Code: One (1) Case

RECONVENE TO OPEN SESSION

CLOSED SESSION REPORT (FILE 11.15)

General Counsel David Kendig reported with Directors Nguyen, Duncan, Kim, Gabbard, Hertz-Mallari, and Foley absent, the Board of Directors by unanimous vote, has given the authority to initiate litigation and the action, defendants and other particulars will be disclosed to any person upon inquiry once the litigation has been formally commenced. Other than that, there is no other reportable action.

ADJOURNMENT – Chair Rossini adjourned the meeting at 8:14 p.m. The next meeting of the Orange County Fire Authority Board of Directors will be on Thursday, November 16, 2023, at 6:00 p.m.

Maria D. Huizar, CMC
Clerk of the Authority



Orange County Fire Authority
AGENDA STAFF REPORT

Board of Directors Meeting
November 16, 2023

Agenda Item No. 2B
Consent Calendar

2024 Board Meetings Schedule

Contact(s) for Further Information

Robert Cortez, Assistant Chief robertcortez@ocfa.org 714.573.6012
Business Services Department

Maria D. Huizar mariahuizar@ocfa.org 714.573.6041
Clerk of the Authority

Summary

This item is submitted for approval of the regular meeting schedule for the Board of Directors Meetings for calendar year 2024.

Prior Board/Committee Action

Not applicable.

RECOMMENDED ACTION(S)

Adopt the proposed Resolution entitled A RESOLUTION OF THE ORANGE COUNTY FIRE AUTHORITY BOARD OF DIRECTORS ESTABLISHING THE REGULAR MEETING DATES FOR CALENDAR YEAR 2024.

Impact to Cities/County

Not Applicable.

Fiscal Impact

There are no fiscal impacts associated with this recommended action.

Background

The Board of Directors Rules of Procedure establishes the time and place for regular meetings. Rule 1 expressly sets the fourth Thursday of each odd numbered month at 6:00 p.m. to hold regular meetings but may be modified by resolution. The proposed Resolution allows for the Board to continue to meet every month on the fourth Thursday of the month, apart from the November meeting that is changed to the third Thursday of the month at 6:00 p.m., due to the Thanksgiving holiday. The calendar attached to the resolution includes all of the proposed regular meeting dates for the Board of Directors and all standing committees.

In keeping with the Board Rules of Procedure, the Board Chair has the discretion to cancel any meeting should there be a lack of business. Also, the Brown Act allows special meetings to be called, as needed.

Attachment(s)

Proposed Resolution and 2024 Calendar of Meetings

RESOLUTION NO. 2023-XX

**A RESOLUTION OF THE ORANGE COUNTY FIRE
AUTHORITY BOARD OF DIRECTORS ESTABLISHING
THE REGULAR MEETING DATES FOR CALENDAR
YEAR 2024**

WHEREAS, the Orange County Fire Authority and Board of Directors was established on March 1, 1995;

WHEREAS, the Board of Directors approves Rules of Procedure in which the time and place of regular meetings of the Board of Directors are established and provides for changes to be made by resolution;

WHEREAS, on November 17, 2022 the Board of Directors approved the regular meeting calendar for 2023 for the Board of Directors to meet every month on the fourth Thursday of the month at 6:00 p.m., and the November meeting that was held on the third Thursday of the month;

WHEREAS, the Board of Directors wish to continue meeting on a monthly basis with the same exception of the month of November, cancellation of meetings the months of August and December; and

NOW, THEREFORE BE IT RESOLVED that the Board of Directors of the Orange County Fire Authority does hereby adopt the attached exhibit establishing meeting dates for calendar year 2024.

PASSED, APPROVED and ADOPTED this _____ day of November 2023.

VINCE ROSSINI, CHAIR
Board of Directors

ATTEST:

MARIA D. HUIZAR, CMC
Clerk of the Authority

APPROVED AS TO FORM:

DAVID E. KENDIG
General Counsel

Orange County Fire Authority

Board of Directors & Committee Meetings

Calendar Year 2024

JANUARY						
S	M	T	W	T	F	S
31	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	1	2	3
4	5	6	7	8	9	10

FEBRUARY						
S	M	T	W	T	F	S
28	29	30	31	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	1	2
3	4	5	6	7	8	9

MARCH						
S	M	T	W	T	F	S
25	26	27	28	29	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31	1	2	3	4	5	6

APRIL						
S	M	T	W	T	F	S
31	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	1	2	3	4
5	6	7	8	9	10	11

MAY						
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12	13	14	15	16	17	18
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26	27	28	29	30	31	1
2	3	4	5	6	7	8

JUNE						
S	M	T	W	T	F	S
26	27	28	29	30	31	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	1	2	3	4	5	6

JULY						
S	M	T	W	T	F	S
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14	15	16	17	18	19	20
21	22	23	24	25	26	27
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AUGUST						
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SEPTEMBER						
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15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	1	2	3	4	5

OCTOBER						
S	M	T	W	T	F	S
29	30	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31	1	2

NOVEMBER						
S	M	T	W	T	F	S
27	28	29	30	31	1	2
3	4	5	6	7	8	9
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17	18	19	20	21	22	23
24	25	26	27	28	29	30

DECEMBER						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	1	2	3	4

LEGEND:

- Holiday - RFOTC Closed
- Budget & Finance Committee Meeting (Meets on the 2nd Wednesday of the Month @ 12 noon and dark in August)
- Human Resources Committee Meeting (Meets Quarterly on 1st Tuesday of the Month @ 12 noon)
- Executive Committee & Board of Directors Meeting (Meeting on 4th Thursday of the Month at 5:30 p.m. and 6 p.m. respectively and dark in August & December)
- Legislative and Public Affairs Committee Meeting (Meets on 3rd Wednesday of the Month in Jan., March, July & Oct. @ 12 noon)
- Operations Committee Meeting (Meets Quarterly on 2nd Tuesday of the Month @ 12 noon)



Orange County Fire Authority
AGENDA STAFF REPORT

Board of Directors Meeting
November 16, 2023

Agenda Item No. 2C
Consent Calendar

Updated Cost Reimbursement Equipment Rates

Contact(s) for Further Information

Robert Cortez, Assistant Chief robertcortez@ocfa.org 714.573.6012
Business Services Department

Gina Cheung, Accounting Manager ginacheung@ocfa.org 714.573.6303

Summary

This item is submitted to request approval of the proposed update to the OCFA Cost Reimbursement equipment rates as adopted by Cal OES California Fire Assistance Agreement (CFAA) and Federal Emergency Management Agency (FEMA).

Prior Board/Committee Action

On November 8, 2023, the Budget and Finance Committee reviewed the proposed agenda item and directed staff to place the item on the Board of Directors agenda by a vote of 6-0 (Directors Lumbard, Patel, and Nguyen absent).

RECOMMENDED ACTION(S)

Approve and adopt the proposed Cost Reimbursement Equipment Rate schedule to be effective October 1, 2023, per Cal OES and FEMA.

Impact to Cities/County

Not Applicable

Fiscal Impact

The fiscal impact of the updated equipment rates will be based on the number of incidents that occur from October 1, 2023, and will be incorporated into the mid-year budget update.

Background

OCFA adopts the Cal OES California Fire Assistance Agreement (CFAA) and Federal Emergency Management Agency (FEMA) approved equipment rates (except for the helicopter rates, which are calculated by OCFA), to seek reimbursement for equipment use during fire incidents. OCFA was notified by Cal OES of the rate change on October 19th. Attachment 1 reflects the Cal OES updated equipment rates effective October 1, 2023.

Attachment(s)

Updated Cost Reimbursement Rates – Equipment effective October 1, 2023

ORANGE COUNTY FIRE AUTHORITY
COST REIMBURSEMENT RATES
EQUIPMENT
EFFECTIVE October 1, 2023

DESCRIPTION	2023/24 Proposed Rate	2023/24 Adpoted Rate	\$ CHANGE	% CHANGE	SOURCE	Hourly / Daily
TYPE 1 ENGINE	\$173.47	\$141.96	\$31.51	22.20%	Cal OES	Hourly
TYPE 2 ENGINE	\$163.55	\$133.85	\$29.70	22.19%	Cal OES	Hourly
TYPE 3 ENGINE	\$156.47	\$128.27	\$28.20	21.98%	Cal OES	Hourly
TRUCK/QUINT	\$122.69	\$122.69	\$0.00	0.00%	FEMA	Hourly
AIR/LIGHT UTILITY	\$56.16	\$56.16	\$0.00	0.00%	FEMA	Hourly
AIRPORT CRASH UNIT	\$82.24	\$82.24	\$0.00	0.00%	FEMA	Hourly
CHIPPER	\$32.26	\$32.26	\$0.00	0.00%	FEMA	Hourly
CREW CARRYING VEHICLE	\$21.90	\$21.90	\$0.00	0.00%	FEMA	Hourly
DOZER	\$152.20	\$152.20	\$0.00	0.00%	FEMA	Hourly
DOZER MODULE (DOZER+TRANSPORT)	\$228.19	\$228.19	\$0.00	0.00%	FEMA	Hourly
DOZER TENDER	\$19.87	\$19.87	\$0.00	0.00%	FEMA	Hourly
DOZER TRAILER	\$18.74	\$18.74	\$0.00	0.00%	FEMA	Hourly
DOZER TRANSPORT	\$75.99	\$75.99	\$0.00	0.00%	FEMA	Hourly
DUMP TRUCK	\$65.75	\$65.75	\$0.00	0.00%	FEMA	Hourly
EXCAVATOR	\$20.46	\$20.46	\$0.00	0.00%	FEMA	Hourly
FIRE COMMAND UNIT	\$86.10	\$86.10	\$0.00	0.00%	FEMA	Hourly
FUEL TENDER	\$32.01	\$32.01	\$0.00	0.00%	FEMA	Hourly
GRADER	\$65.12	\$65.12	\$0.00	0.00%	FEMA	Hourly
HAZMAT UNIT	\$82.24	\$82.24	\$0.00	0.00%	FEMA	Hourly
HAZMAT SUPPORT	\$31.43	\$31.43	\$0.00	0.00%	FEMA	Hourly
LOADER/SKID-STEER	\$36.76	\$36.76	\$0.00	0.00%	FEMA	Hourly
MEDIC UNIT	\$265.00	\$201.00	\$64.00	31.84%	Cal OES	Daily
MULE	\$14.05	\$14.05	\$0.00	0.00%	FEMA	Hourly
PATROL/SQUAD UNIT	\$226.00	\$120.00	\$106.00	88.33%	Cal OES	Hourly
PICKUP (less than 3/4 ton)	\$166.00	\$127.00	\$39.00	30.71%	Cal OES	Daily
PROWLER	\$15.00	\$15.00	\$0.00	0.00%	FEMA	Hourly
REFRIGERATED TRAILER (29-40 ft)	\$553.00	\$553.00	\$0.00	0.00%	CAL FIRE	Daily
SEDAN	\$226.00	\$120.00	\$106.00	88.33%	Cal OES	Daily
SPORT UTILITY VEHICLE	\$279.00	\$197.00	\$82.00	41.62%	Cal OES	Daily
VAN	\$309.00	\$194.00	\$115.00	59.28%	Cal OES	Daily
WATER TENDER	\$127.21	\$104.11	\$23.10	22.19%	Cal OES	Hourly
OTHER (3/4 ton and above)	\$265.00	\$201.00	\$64.00	31.84%	Cal OES	Daily
HELICOPTER - BELL 412	\$5,651.71	\$5,651.71	\$0.00	0.00%	OCFA	Hourly

Notes:

- (1) Helicopter rates are based on 20 years useful life without the pilot and crew chief (Captain). The new rate reflects average usage for the past four years.
(2) Rates for the Firehawk helicopters will be added and submitted to the Board for approval when the new aircraft is placed into service.
(3) Updated 2023 Cal OES rate effective October 1, 2023 for all CFAA orders and requests.



Orange County Fire Authority
AGENDA STAFF REPORT

Board of Directors Meeting
November 16, 2023

Agenda Item No. 2D
Consent Calendar

Organizational Service Level Assessment Update

Contact(s) for Further Information

Lori Zeller, Deputy Chief
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Summary

This agenda item is submitted to provide a progress update on the Organizational Service Level Assessments (SLAs) recommendations for Field Deployment, Emergency Medical Services, Emergency Command Center, Fleet Services, Executive Management/Human Resources, Business Services, and Community Risk Reduction which were completed by Citygate as part of the assessments in 2020 and 2021.

Prior Board/Committee Action(s)

At its regular November 15, 2018, meeting, the Executive Committee awarded a Master Consulting Agreement with Citygate Associates, LLC, the number one ranked firm in the OCFA's Request for Qualifications (RFQ) process for as-needed organizational service level review consulting services.

At its regular September 24, 2020, meeting, the Board of Directors approved the recommended actions to receive and file the results and final reports for Field Deployment, Emergency Medical Services, Emergency Command Center, Fleet Services and Executive Leadership/Human Resources. Furthermore, the Board of Directors also approved the issuing of Purchase Orders to Citygate Associates, LLC to conduct SLAs for the Business Services Department and the Community Risk Reduction Department and corresponding budget adjustments.

At its regular January 27, 2022, meeting, the Board of Directors approved the recommended actions to receive and file the Citygate Organizational Service Level assessment update for Field Deployment, Emergency Medical Services, Emergency Command Center, Fleet Services, and Executive Leadership/Human Resources. The Board of Directors also approved to receive and file the Citygate Organizational Service Level Assessment results presentation and final reports for the Business Services Department and the Community Risk Reduction Department.

At its May 26, 2022, November 9, 2022 and May 26, 2023 meetings, the Board of Directors approved the recommended actions to receive and file the Citygate Organizational Service Level Assessment update for Field Deployment, Emergency Medical Services, Emergency Command Center, Fleet Services, Executive Leadership/Human Resources, Business Services Department and the Community Risk Reduction Department.

At its regular October 26, 2023, meeting, the Executive Committee awarded a Professional Services Agreement with Citygate Associates, LLC, to update the Standards of Cover (SOC) Plan.

On November 8, 2023, the Budget and Finance Committee reviewed the proposed agenda item and directed staff to place the item on the Board of Directors agenda by a vote of 6-0 (Directors Lumbard, Patel, and Nguyen absent).

RECOMMENDED ACTION(S)

Receive and file the Organizational Service Level Assessment (SLA) update.

Impact to Cities/County

Not Applicable.

Fiscal Impact

None.

Background

Following a 2018 RFQ process, Citygate Associates, LLC (Citygate) was selected and awarded a 3-year term agreement, with two additional one-year renewals, to perform as-needed organizational service level review consulting services for OCFA. Citygate, is a public sector firm that provides management consulting to a full array of local government functions, with particular emphasis on fire protection, law enforcement, community development, public works, animal services, and human resources.

Five organizational SLA areas, also known as cost centers, were identified as part of the first phase of the Citygate SLA project and approved for review by the Budget & Finance Committee and the Board of Directors in 2019. The first phase of the SLAs included: Emergency Command Center (ECC), Emergency Medical Services (EMS), Fleet Services, Field Deployment (Standards of Cover), and Executive Leadership Team/Human Resources. The second phase of the SLAs were approved for review by the Budget & Finance Committee and the Board of Directors in September 2020 and included SLAs for the Business Services Department and the Community Risk Reduction Department. These assessments were intended to accomplish the same objectives as a strategic plan, but in smaller pieces, and allow for progress to be made on identified objectives, while other portions of the organization are still being assessed. Each SLA evaluates, at a forensics data-driven level, the operational performance of the cost centers, not just compared to national and Citygate team best practices, but to the needs of the OCFA, its employees and its agency customers. Each SLA is a stand-alone assessment report, which covers elements assessed, the operational metrics, and describes strengths and areas of opportunity.

Since the Board approval of the assessments, staff has been working towards implementing Citygate's recommendations that do not require an increase in costs to the organization. A listing of Citygate SLA recommendations and status updates are provided in the Attachment.

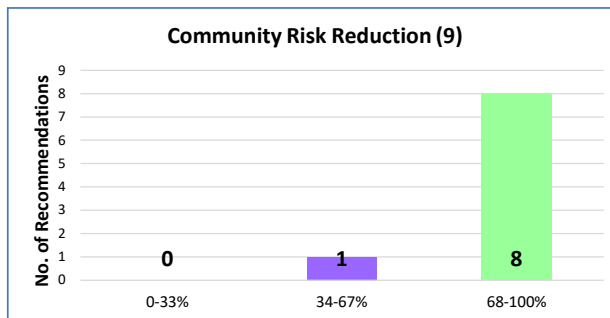
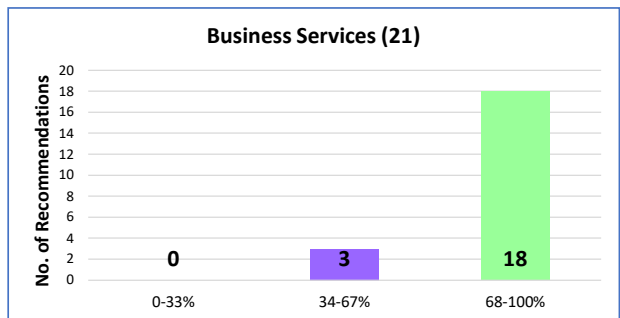
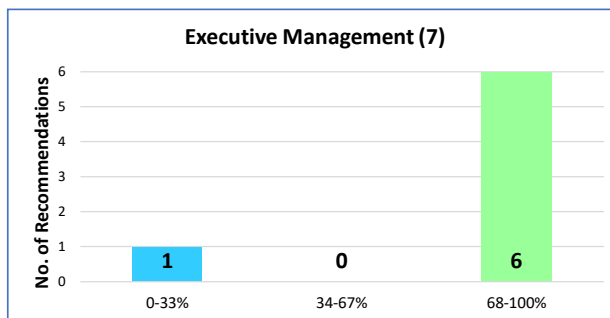
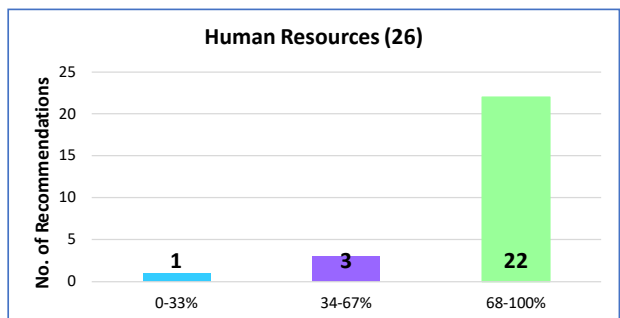
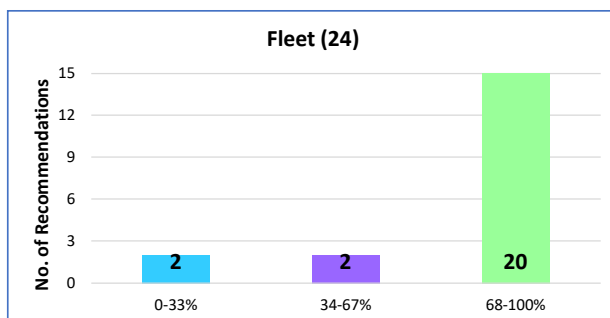
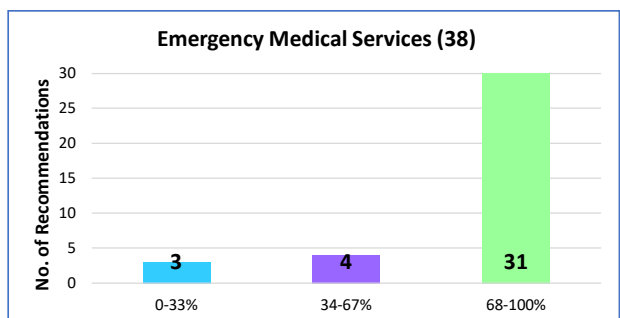
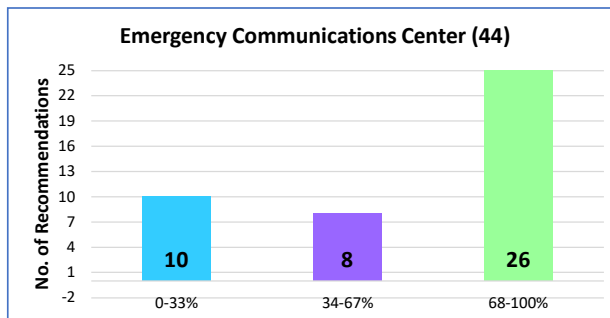
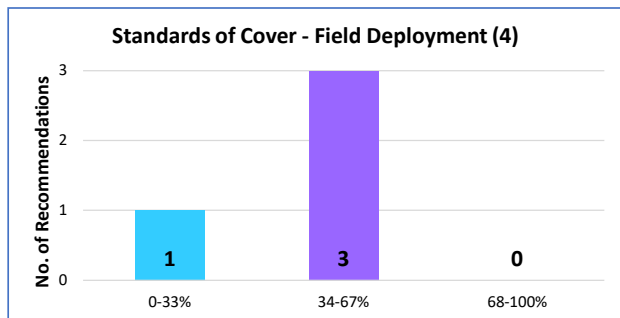
On October 26, 2023, the Executive Committee approved a refresh to the Field Deployment (SOC) that was completed during the Citygate SLA project in 2020. Although the Field Deployment SOC was completed in 2020, the data used to compile the SLA is from calendar years 2016 through 2018. The SOC will be updated to include changes in jurisdiction (City of Garden Grove joining and City of Placentia separating) and service level changes tied to COVID.

Attachment

Organizational SLA Recommendations and Status Update November 2023

Orange County Fire Authority Organizational Service Level Assessment Recommendations Status Summary – November 2023

This summary overview provides the status of recommendations within each Service Level Assessment (SLA). Additional details are included in the SLA Recommendations Status Report.



Percentage Completed Color Key:

- 0-33% Steps to carry out the recommendation are in
- 34-67% The recommendation is currently being implemented.
- 68-100% Significant process has been made towards the completion of the recommendation or recommendation has been fully implemented.



**ORANGE COUNTY FIRE AUTHORITY
Organizational Service Level Assessments
Recommendations Status Report – November 2023**

Percentage Completed Color Key:

- 0-33% Steps to carry out the recommendation are in early development.
- 34-67% The recommendation is currently being implemented.
- 68-100% Significant progress has been made towards the completion of the recommendation or recommendation has been fully implemented.

No.	Recommendation	# New Positions	New Cost Increase?	Responsible Dept/Bureau	Status / Results	Date Completed	% of Completion
Standards of Cover – Field Deployment Service Level Assessment							
1.1	Adopt updated Board of Directors deployment measures. (pg. 9)	No	No	Emergency Ops Bureau	While not yet adopted, staff is using the updated deployment measures to evaluate performance. First Watch software is being utilized to gather real time response data.		25%
1.2	Reduce turnout times to 2:00 minutes or less, 90 percent of the time. (pg. 10)	No	No	Field Operations	In progress. First Watch is being utilized.		50%
1.3	As soon as finances allow, OCFA should add: <ul style="list-style-type: none"> A ladder truck to Station 56 (moving the ladder to Station 32 is a given). Five float engines (or four engines and one ladder truck) 24/7/365 to support 	12 60	Yes Yes	Field Operations	<ul style="list-style-type: none"> Completed the improvement of ladder truck coverage for Station 32 July 2020 (non-cost item). T56 went in service late 2022 at FS56. Balance of the recommendation is pending 		100% 0%

Note: The page number referenced in the recommendation description refers to the location of the recommendation within the respective SLA report.



ORANGE COUNTY FIRE AUTHORITY
Organizational Service Level Assessments
Recommendations Status Report – November 2023

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No.	Recommendation	# New Positions	New Cost Increase?	Responsible Dept/Bureau	Status / Results	Date Completed	% of Completion
	peak-hour, high-activity areas, training backfill, and immediate third alarm strike force or special event staffing. (pg. 10)				future financial feasibility and prioritization. Will be evaluated with an updated Standards of Coverage document.		
<i>Additional Field Deployment Service Level Assessment Options</i>							
1.4	Options to Improve Deployment						
	• Relocate Station 10. (pg. 5)	12	Yes		• Station 10, In progress.		15%
	• Add Station 12 to improve capacity and coverage west of Station 22. (pg. 5)	12	Yes		• Station 12, In progress.		15%
	• Add Station 52 to add coverage. (pg. 5)	36	Yes		• Station 52, In-progress.		5%
	• Improved ladder truck coverage for Stations 19, 24, 48, 56, and 32. (pg. 5)	No	No		• Completed the improvement of ladder truck coverage for Station 32, 56 in December 2022, and Truck 24 will be in service after station 24 is completed (see 1.3). Other Stations are pending future	7/2019	50%
							100%

Note: The page number referenced in the recommendation description refers to the location of the recommendation within the respective SLA report. 2



ORANGE COUNTY FIRE AUTHORITY
Organizational Service Level Assessments
Recommendations Status Report – November 2023

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No.	Recommendation	# New Positions	New Cost Increase?	Responsible Dept/Bureau	Status / Results	Date Completed	% of Completion
	<ul style="list-style-type: none"> • Call processing times to 90 percent of the fire and EMS incidents at 1:19 minutes are faster than Citygate's and the National Fire Protection Association's recommendation of 1:30 minutes where no language or location identification barriers exist. (pg.8) 				financial feasibility and prioritization. <ul style="list-style-type: none"> • Completed, call processing times included with monthly compliance reports. Efforts will be ongoing. 		
<i>Emergency Communications Center (ECC) Service Level Assessment</i>							
2.1	Add 10 new dispatch positions to the ECC. (pg.1) Increased authorized FTE FCD count from 32 to 42 FCDs. Overall, the increase in staff may address:	10	Yes	ECC	Pending future financial feasibility and prioritization. In addition, will be submitted in the fiscal year 2024-25 budget process.		5%



ORANGE COUNTY FIRE AUTHORITY
Organizational Service Level Assessments
Recommendations Status Report – November 2023

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No.	Recommendation	# New Positions	New Cost Increase?	Responsible Dept/Bureau	Status / Results	Date Completed	% of Completion
	<ul style="list-style-type: none"> The ongoing need to backfill shifts and assign overtime. Decrease overtime to allow the 12-hour shift schedule to be fully realized by staff so that this shift configuration can be fully evaluated as to effectiveness, retention, and performance. (pg. 53) 						
2.2	Increase supervisor positions from six to seven by eliminating an existing Senior Fire Communication Supervisor classification. (pg. 1)	No	No	ECC	Completed. Reallocation of position is on a temporary basis.	10/2020	100%
2.3	Reconfigure shift days off in the shift rotation in order to provide the opportunity for all ECC to have some weekend time off. (pg. 2, 57)	No	No	ECC	Completed. Implementation set for January 1, 2024.	10/2023	100%

Note: The page number referenced in the recommendation description refers to the location of the recommendation within the respective SLA report. 4



ORANGE COUNTY FIRE AUTHORITY
Organizational Service Level Assessments
Recommendations Status Report – November 2023

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No.	Recommendation	# New Positions	New Cost Increase?	Responsible Dept/Bureau	Status / Results	Date Completed	% of Completion
2.4	Add a management analyst to the ECC structure to effectively develop and facilitate change-management processes. (pg. 2)	1	Yes	ECC	Completed. Added (rotated from another department) Management Analyst.	8/2020	100%
2.5	Reconfigure existing personnel, or modify/rotate assignments, to create a more formal CQI Unit. (pg. 3)	No	No	ECC	Completed. However, efforts will be ongoing. ECC Administrative Supervisor assigned to CQI Unit with Nurse Educator and Medical Director.	10/2020	100%

2.6	OCFA should source and establish a backup location and equip it with ECC equipment that will facilitate continuity of operations and remote connectivity options. (pg. 4)	No	No	IT	<p>This project had already been approved in the 5-year CIP prior to the Citygate recommendation and is in process for build-out of a back-up dispatch location at the OCFA's US&R Warehouse. Additionally, the capabilities of the ECC emergency communications trailer located at FS43. 9-1-1 phones have been extended to its location as well as full connectivity to CAD.</p> <p>Kitchell feasibility study for layout and equipment completed. Furniture installation completed Jan. 2023. Engineer site-walk for data, power, HVAC, radio conduits completed March 2023. Contract for engineering design-bid plans/data/power approved in April 2023.</p>		50%
2.7	Evaluate the organization and reporting structure for the EPAC unit to identify the need for additional personnel to work under the assigned division chief. (pg. 40)	1	Yes	ECC	<p>Pending future financial feasibility and prioritization. In addition, will be submitted in the fiscal year 2024-25 budget process. The EPAC position requires considerable time commitment. The EPAC position will require (1) Full Time Battalion Chief or higher, or a civilian position dedicated to this role. Consider realigning</p>		5%

Note: The page number referenced in the recommendation description refers to the location of the recommendation within the respective SLA report. 6



ORANGE COUNTY FIRE AUTHORITY
Organizational Service Level Assessments
Recommendations Status Report – November 2023

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No.	Recommendation	# New Positions	New Cost Increase?	Responsible Dept/Bureau	Status / Results	Date Completed	% of Completion
					with the Strategic Services Division.		
2.8	Establish a role of each position assigned to the division, as well as their reporting relationship(s) and responsibilities. Ensure that collateral duties assigned- such as CTO, incident dispatcher, and acting supervisor-are included. (pg. 40)	No	No	ECC	Completed. Classification specs have been established. Collateral duties identified and have been assigned.	8/2023	100%
2.9	Develop an ECC orientation program and mentoring guidelines to administer when the Battalion Chiefs rotate. (pg. 40)	No	No	ECC	Duty Officer Handbook and (3) 8-hour observation shifts have been implemented for new duty officers.	4/2021	100%
2.10	Develop a succession plan for future transitions. Include an analysis of retirement thresholds of existing staff	No	No	ECC	Will be evaluated for future direction.		0%



ORANGE COUNTY FIRE AUTHORITY
Organizational Service Level Assessments
Recommendations Status Report – November 2023

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No.	Recommendation	# New Positions	New Cost Increase?	Responsible Dept/Bureau	Status / Results	Date Completed	% of Completion
	and newly created positions or assignments. (pg. 41)						
2.11	Develop career paths for the ECC manager and supervisory staff by creating career-development plans for each and research industry-related (e.g., APCO, NENA, and POST ¹⁵) training courses pursuant to each position. (pg. 41)	No	Yes	ECC	Training opportunities for ECC manager and supervisor staff have been planned for CY 2024.		30%
2.12	Develop a data-tracking mechanism, whether it be CAD incidents or other data sources, to capture radio workload per 24x7 console, to determine the increase/decrease of workload over time as jurisdictions are integrated or omitted from the system. Additionally, set workload	No	No	ECC	Will be evaluated for future direction.		0%

Note: The page number referenced in the recommendation description refers to the location of the recommendation within the respective SLA report. 8



ORANGE COUNTY FIRE AUTHORITY
Organizational Service Level Assessments
Recommendations Status Report – November 2023

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No.	Recommendation	# New Positions	New Cost Increase?	Responsible Dept/Bureau	Status / Results	Date Completed	% of Completion
	thresholds for each workstation to assist in the re-balancing of workload, should agencies be added or subtracted for ECC operations. (pg. 43)						
2.13	Consider MCP used a mid-point number for attrition, measure if using the mid-point number achieved the needed level of staffing, and operational effectiveness and efficiency. (pg. 53)	No	No	ECC	Completed. Workflow and call volume was compared with staffing levels, evaluated, addressed, and will be reviewed annually.	7/2022	100%
2.14	During each shift, ensure that the ECC staff rotates positions so that staff members are not working singular positions for extended periods of time. This wellness provision keeps staff fresh at each position. (pg. 57)	No	No	ECC	This process has updated post COVID Protocols. Staff are rotated to various positions each shift. Whenever possible, staff are also rotated to different assignments during their shift assignment.	3/2022	100%

Note: The page number referenced in the recommendation description refers to the location of the recommendation within the respective SLA report. 9



ORANGE COUNTY FIRE AUTHORITY
Organizational Service Level Assessments
Recommendations Status Report – November 2023

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No.	Recommendation	# New Positions	New Cost Increase?	Responsible Dept/Bureau	Status / Results	Date Completed	% of Completion
2.15	Examine vacation time taken so that backfill is minimized and staffing is increased to enable this time to be absorbed in shift numbers. As the ECC staff become more tenured, the amount of vacation time they take will increase. (pg. 57)	No	No	ECC	Vacation hours analysis started with management analyst. Vacation calendar created by management analyst to assist with identifying vacation time taken and track backfills. Further discussions are tabled until CY 2024.		75%

Note: The page number referenced in the recommendation description refers to the location of the recommendation within the respective SLA report. 10

2.16	<p>Develop and institute a Critical Staffing Contingency Plan that is invoked if staffing levels reach critical minimums. This threshold can be identified by the OCFA, but generally, elements include the agency's inability to staff to a minimum level without assigning excessive amounts of overtime (forced or voluntary). Excessive overtime is also agency defined. When manageable staffing levels are reached, which decreases mandatory overtime and backfill, the plan will be discontinued. This plan should include the following, but is not limited to:</p> <ul style="list-style-type: none"> • Consider eliminating the overlap shifts and reassign personnel to strictly the 7:00 a.m. or 7:00 p.m. shifts to establish predictable hours of backfill and a predictable pool of people to allocate time to, easing schedule complexity. • Assign administrative supervisors to a minimum number of hours on 				<p>Preliminary evaluation of this contingency plan has been completed and efforts are ongoing to fully develop this plan.</p>		85%
					<ul style="list-style-type: none"> • Considered and not conducive to peak call volumes. 	1/2022	100%
					<ul style="list-style-type: none"> • Completed. Modified from proposal. 	6/2021	100%

Note: The page number referenced in the recommendation description refers to the location of the recommendation within the respective SLA report. 11



ORANGE COUNTY FIRE AUTHORITY
Organizational Service Level Assessments
Recommendations Status Report – November 2023

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No.	Recommendation	# New Positions	New Cost Increase?	Responsible Dept/Bureau	Status / Results	Date Completed	% of Completion
	predetermined days to provide meal and break relief.						

2.16	<ul style="list-style-type: none"> Identify average low-call-volume periods and decrease staffing levels to reduce forced and voluntary overtime (determine if radio positions can be combined of whether a call-taker is needed during certain time of day). Determine if a system that allows at least two days on the upcoming month's schedule where staff will not be forced to work overtime unless it is the last resort. If it is the last resort, a face-to-face explanation needs to be provided to them. Consult with HR and study the use of earned compensatory time. Under the contingency staffing plan, the ability to earn compensatory time should be suspended in lieu of cash payment to prevent staff from accumulating compensatory time for which it is difficult to provide requisite time off. Estimate the use of compensatory time and project both staffing and 	No	No	ECC	<ul style="list-style-type: none"> Completed. Modified from proposal. 	6/2021	100%
					<ul style="list-style-type: none"> Completed. Considered and not feasible. Time off schedule continuously reviewed and discussed with staff. 	6/2022	100%
					<p>Further discussions are tabled until CY 2024.</p> <ul style="list-style-type: none"> Further discussions are tabled until CY 2024. 		50%

Note: The page number referenced in the recommendation description refers to the location of the recommendation within the respective SLA report. 13



ORANGE COUNTY FIRE AUTHORITY
Organizational Service Level Assessments
Recommendations Status Report – November 2023

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No.	Recommendation	# New Positions	New Cost Increase?	Responsible Dept/Bureau	Status / Results	Date Completed	% of Completion
	monetary cash-out. Backfilling a position that is earning time-and-a-half that can be banked results in a revolving process that will keep staffing levels low unless staffing strength is increased to fill the vacancy at straight time. (pg. 57, 58)						
2.17	Initiate discussions with regional ECC leaders to gauge interest and feasibility in developing regional training opportunities. (pg. 67)	No	No	ECC	Completed. Region 1 ECC's have reestablished quarterly meetings. Training is occurring and ongoing with all regional ECCs.	6/2022	100%
2.18	Ensure that CTO core competencies are being met through the selection process and offer continuing education to CTOs when available. (pg. 67)	No	No	ECC	Completed. However, efforts will be ongoing. CTO program established with certification class.	1/2020	100%

Note: The page number referenced in the recommendation description refers to the location of the recommendation within the respective SLA report. 14



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No.	Recommendation	# New Positions	New Cost Increase?	Responsible Dept/Bureau	Status / Results	Date Completed	% of Completion
2.19	Implement formal CTO program oversight and ensure that best practices are being applied in comparison to industry standards. (pg. 67)	No	No	ECC	Completed. However, efforts will be ongoing.	1/2020	100%
2.20	Review CBD or EMD academy time frames and extend them to maximize role-play and scenario-based testing. Continue to use a building-block approach to ensure student retention and understanding of medical terminology and add new content as a QA program and testing. (pg. 67)	No	No	ECC	Completed. However, efforts will be ongoing and re-evaluated after every academy.	7/2019	100%
2.21	Revisit broadcast delivery sequencing to ensure that all information has been received in the field and to	No	No	ECC	Completed. Evaluation and process reviewed.	6/2022	100%

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	measure policy compliance. (pg. 75)						
2.22	Ensure SOP development is well vetted, approved, trained upon, formally acknowledged (i.e., employee sign-off) and uniformly enforced, so that compliance can be measured. (pg. 75)	No	No	ECC	Multiple SOP's in ECC have been updated/ revised. Training advisories are distributed anytime there has been a change in any operational change in the ECC.	8/2019	100%
2.23	Engage field operations and regional partners to review existing regional and/or countywide response plans (e.g., CAD-to-CAD rules) and develop new plans to further cooperation with allied agencies. (pg. 75)	No	No	ECC/Field Operations	Region wide collaboration is occurring and ongoing with regional partners on an annual basis. CAD-to-CAD rules, local and regional response plans, and communication plans are ongoing and reviewed annually.	6/2022	100%
2.24	Complete review of the Metro Net Fire EMD Plus program in 2020 and choose to start forward with implementation for the OCFA	No	Yes	IT/EMS	In progress. Pre-March 2020, OCFA regularly met with MetroNet to receive updates and feedback on their EMD Plus program. EMS/ECC is		60%

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	or go out to the national marketplace to review and procure a different solution for CBD that can be integrated into the CAD software for prompt workflow function as well as meeting patient care needs. (pg. 75)				currently researching automated CBD programs.		
2.25	Review the NHTSA model for EMD programs and construct an in-house program that involves all OCFA stakeholders: <ul style="list-style-type: none"> • Ensure that best practices regarding program administration, duties and responsibilities are detailed and upheld to prevent bad habits from being formed from the start. 	No	No	EMS	Completed. From recruitment of dispatch candidates, during their entire training, while on probation, and during their entire career, dispatchers are given clear duties, expectations, appropriate quality assessment and quality improvement interventions consistent with nationally accepted standards.	9/2020	100%

Note: The page number referenced in the recommendation description refers to the location of the recommendation within the respective SLA report. 17

2.25	<ul style="list-style-type: none"> Reinforce program administration details with SOPs. To the best of the OCFA's ability, ensure countywide alignment to achieve consistent and uniform pre-response patient care. (pg. 75) When considering a product for EMD delivery, ensure that proper product support for both manual and automated systems is maintained so that the OCFA continually receives updates, enhancements and protocol changes; such e-PCR or other records management systems (RMS). (pg. 75) 				<ul style="list-style-type: none"> Completed. Program details and expectations are delineated in the ECC Handbook on which each dispatcher is trained and tested as part of their academy and continuing education and certification. OCFA routinely meets with MetroNet dispatching agency to align dispatching procedures, protocols, and pre-arrival instructions. Due to reduced frequency of meetings due to COVID-19, both agencies are working to re-establish previous ongoing collaborative relationships. Completed. OCFA's EMD product is continually updated, and protocols are evaluated in order to comply with OCEMSA, state, and national standards. The EMD interfaces with extant record management systems within the organization. 	4/2022	<p>100%</p> <p>100%</p> <p>100%</p>
2.26	MCP recommends two QA/QI specialists, with an evaluation at the six-month mark to determine whether a	2	Yes	ECC	One Administrative Fire Communications Supervisor has assumed CQI responsibilities. A full-time		50%

Note: The page number referenced in the recommendation description refers to the location of the recommendation within the respective SLA 18 report.



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	third person is needed. Ideally, these specialists will provide QZ analysis and feedback to ECC staff on low medical acuity calls and fire dispatch operations. By adding the fire QA processes, low acuity analysis and feedback, and high acuity analysis and feedback from the Nurse Education, these combinations result in the creation of a QA Unit. (pg. 81)				Nurse Education has been assigned to the ECC to assist with CQI as well as on-going discussion with EMS to add additional capability of overtime. ECC Staff and EMS staff are researching the ability to leverage AI for additional assistance with CQI. Further discussions are tabled until CY 2024.		34-67%
2.27	MCP recommends the newly formed QA Unit include quality performance measurements via a customer satisfaction instrument. (pg. 81)	No	No	ECC	Will be evaluated for further direction.		0%

2.28	<p>Ensure that performance indicators are distinguished from measurements and that adjustments are made in alignment with national and local standards. Include the following at a minimum:</p> <ul style="list-style-type: none"> • Measurement of all fire and medical life-safety call types to indicate PSAP performance. In doing so, develop mechanisms to correlate medical life-safety call types with field-outcome data to identify patient survivability. • Analyze how structure-fire call-processing times are being measured and adjust as needed. • Analyze “call received” benchmarking to determine relevance to total call-processing statistics. • Determine the value of developing qualitative measures for ECC’s PSAP. (pg. 81) 	No	No	ECC	Completed. However, efforts will be ongoing. ECC prepares monthly reports for ECC compliance with national and state standards.	1/2020	100%
2.29	Develop annual master in-service training calendars and publish them well in advance of the start date(s). Establish SOPs related to expectations regarding attendance,	No	No	ECC	In progress. Monthly training in place. Working on annual calendar for in service training. There is a pause on this initiative due to decreased		50%

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	conduct and effectiveness measurement. (pg. 85)				staffing. Further discussions are tabled until CY 2024.		
2.30	Reestablish the incident communications program. (pg. 85)	No	No	ECC	Completed. However, efforts will be ongoing. ECC achieved completing qualifications for multiple ECC staff members, and many more are in a trainee status. Multiple ECC staff members have been deployed to assist with Incident Communications.	1/2021	100%
2.31	Refine and maintain an ongoing regular program of positive feedback to the telecommunicators, outside of national Telecommunicators week. (pg. 85)	No	No	ECC	In progress. Completed. However, efforts will be ongoing. ECC Staff members receive positive feedback for achievements in call compliance, childbirth and CPR saves (EMD program). This will be an area of constant development and enhancements in the ECC.	1/2022	100%

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2.32	Offer customer-service training three hours each year, at a minimum. (pg. 86)	No	No	ECC	Completed. Training provided through various options to staff. Training will be ongoing and evaluated.	6/2022	100%
2.33	Consider a customer-satisfaction survey or another mechanism for customer input. Collaboratively, develop mechanisms to foster relationships between field personnel and the ECC staff. Extend that effort to ensure that the public can provide input about ECC services. (pg. 86)	No	No	ECC	Completed. However, efforts will be ongoing. Program is managed by Clerk of the Authority.	9/2021	100%

2.34	<p>Design, collaborate, develop, and implement a strategic technology master plan for:</p> <ul style="list-style-type: none"> • Optimizing current ECC equipment, to include the CAD and notification systems, etc. • Evaluating current ECC technology for its necessity, applicability and utility. • Conducting research and development for emerging fire service and communications technology and include it in the technology master plan. • Assessing lifecycles of all technologies used by the OCFA ECC and include a replacement plan for all technologies that impact ECC operations. • Include a CAD SME that could be a lateral FCD assignment who reports to a systems supervisor or an external contractor. (pg. 93) 	No	Yes	IT	<p>ECC and IT staff closely collaborate in weekly status meetings on any technology and proposed. changes or upgrades are reviewed for applicability and utility. Dedicated IT staff develop technology. upgrades and monitor industry changes and advances. A formal strategic technology master plan for ECC will be developed.</p> <p>OCFA GIS Supervisor is leader in GIS NG9-1-1 representing Orange County agencies. OCFA IT staff are diligently and continually updating software versions for the ECC computer environment at the desktop and server levels (Windows, SQL, Server, VM Ware) to the most current supported versions, as well as updating CAD, VESTA, and Station Alerting systems. Working with CALOES to implement NG911 technology (new routers installed), developing upgrade for VESTA 911 phone system and VPI 911 logging recording systems.</p>		30%
2.35	Assess CAD system optimization, maintenance, server capacity and storage,	No	No	IT	<p>In progress. 3rd party not hired for hardware assessment. Internal reviews and upgrades</p>		60%

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	disaster recovery and failover: <ul style="list-style-type: none"> • Hire a third-party that is vendor agnostic to assess what is good and working well, and what needs improvement and enhancement. Once completed, determine the level of training the ECC staff will need and identify the ECC SMEs to be trained in a “train-the-trainer” format so that they can be individually train staff and/or conduct training in a group setting. (pg. 93) 				are an on-going best practice. ECC trains and uses internal SMES’s for train-the-trainer. Disaster Recovery sites identified and site improvements in-process to establish DR capability at FS43 and US&R warehouse. OCFA staff have completed upgrades to FS43 infrastructure with additional power and data lines allowing 911 VESTA and CAD connectivity to RFOTC data center. US&R warehouse updates continuing as detailed in item 2.6. OCFA IT CAD support staff conducting training for ECC SME’s. Recently completed developing a core CAD functionality stand-alone system called CAD-in-a-Box (CIB). CIB used live Sept. 9,		

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					2022, during a CAD outage and has been deployed as a backup capability for CAD.		
2.36	To maximize funding to the ECC from the state, do not replace the 911 telephony system unless a catastrophic failure is imminent or occurs between now and the implementation of the NG911 network. (pg. 93)	No	No	ECC	In progress. Waiting on Next Generation 911 but CALOES has continuing delays possibly to 2024 OCFA agrees to await NG911 implementation before acquiring NG911 telephony system. NG911 Network hardware and data lines installation by LUMEN (authorized CALOES vendor) in process. Replacement of 911 voice recording system in process; RFP issued April 2023.		50%
2.37	Collaborate with relevant stakeholders for the development of governance of the CAD-to-CAD solution. (pg. 93)	No	No	IT	Completed. The CAD2CAD (C2C) Cost Sharing Agreement was revised Feb 21, 2021, between OCFA, Metronet, Costa Mesa, Laguna Beach for the ongoing licensing and cost	2/2021	100%

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					sharing. Regional C2C team meets bi-monthly to review status of projects, upgrades, standard operations.		
2.38	Consult with CentralSquare regarding creation of a relation table that allows a unit field to accommodate a sub-addressing convention and a feature to enable multiple address points for a single structure. (pg. 97)	No	Yes	IT	Recent upgrade to the CentralSquare CAD Enterprise to version 21.1.2 adds sub-addressing and multiple address points for single location. Testing is completed.	7/2023	100%
2.39	Discuss with CentralSquare increasing mapping updated to address the inconsistency with local applications. (pg. 97)	No	No	IT	CentralSquare has implemented native ESRI Network Dataset. Adds ability for real-time CAD mapping attribute updates. Future plans include migrating native ESRI Geocoding processes.		50%
2.40	Consider a succession plan for the ECC GIS specialist. (pg. 97)	No	No	ECC	Completed. The ECC GIS responsibility has been	8/2023	100%

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					transferred to the GIS department.		
2.41	Monitor the utilization of each commercial IT link to identify if there is a sufficient capacity to handle traffic if one link fails. This evaluation will determine if enough bandwidth is available to carry the load without degradation of service. (pg. 101)	No	No	IT	Completed. The OCFA uses COGENT which includes 2 circuits (ATT, COX) rated at 500MB each for aggregate 1GB. Either circuit could support OCFA’s needs temporarily if the other fails.	6/2019	100%
2.42	Evaluate specifications and conditions of the existing generator to NFPA 1221, section 4.7.4 and NFPA 70. (pg. 101)	No	Yes	Property Management/ECC	Included in 5 – year capital budget to upgrade generator and add 2 nd / backup generator in FY 2024/25.		0%
2.43	Conduct a cost/benefit analysis for installing a diverse path for AT&T’s network into the ECC when the State IP infrastructure is	No	No	IT	CALOES is currently installing Next Generation 911 equipment data lines and equipment in OCFA data center.		20%

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	extended to the Orange County area. (pg. 101)						
2.44	Source and equip a backup location for the ECC to facilitate continuity of operations and remote connectivity options. (pg. 101)	No	No	IT	Alternative Dispatch locations have been established at Fire Station 43 where Dispatch Emergency Communications Trailer is stored. It has live connections to VESTA 9-1-1, CAD, and radio communications. It is available for short term emergency dispatching and US&R warehouse will be for long-term emergency dispatching. USAR located alternate dispatch build-out in process.		50%
Emergency Medical Services (EMS) Service Level Assessment							
3.1	Build a robust quality management program, consistently applied by all	No	No	EMS	Completed. The EMS Department has revised the CQI plan and has developed a	6/2021	100%

Note: The page number referenced in the recommendation description refers to the location of the recommendation within the respective SLA report. 28



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	CQI reviewers, around three themed: <ul style="list-style-type: none"> • System evaluation • Quality improvement • Patient safety / sentinel events (pg. 22) 				standard template for patient care report reviews.		
3.2	The Department needs to develop core, tertiary, and ad hoc performance indicators to effectively measure performance. These indicators need to be the foundation of OCFA’s quality management program. (pg. 22)	No	No	EMS	In progress. The EMS department has identified measures to assure CQI is being done consistently among staff members. Conversations with L3631 will be ongoing.		80%
3.3	Design a quality management program and CQI plan that will drive performance evaluation and use evidence-based empirical data to drive decisions in the department. (pg. 22)	No	No	EMS	Completed. The CQI plan has been revised and updated. It has been approved by OCEMS.	6/2021	100%

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3.4	Build a CQI plan based on state model guidelines, recognizing that the ability to do so is dependent on increasing the personnel resources available to the Department: <ul style="list-style-type: none"> • CQI team • Technical Advisory Group • Quality Task Force (pg. 22) 	No	No	EMS	Completed. The CQI plan has been updated to reflect OCEMS and State guidance.	6/2021	100%
3.5	Create a Quality Task Force to design evidence-based quality indicators to: <ul style="list-style-type: none"> • Meet state and local guidelines. • Meet best practices using evidence-based indicators. • Measure performance (pg. 22) 	No	No	EMS	Completed. The EMS Department has been restructured and a Quality Management Division has been established.	6/2021	100%
3.6	Develop evidence-based indicators that measure the quantity and quality of	No	No	EMS	In progress. A standardized rating rubric has been developed to provide		90%

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	feedback provided to paramedics. This ensures both positive and constructive feedback is provided consistently. (pg. 22)				consistent positive and constructive feedback. Conversations with L3631 will be ongoing.		
3.7	Dedicate a data analyst or bio statistician to the quality management program to help build quality indicators and assist in developing presentations of data. This position will assist with root-cause analysis and decision-making models. <ul style="list-style-type: none"> • The quality management program needs to have a full-time data specialist with knowledge and experience with data structure and how to collect and interpret data. 	1	Yes	EMS	An EMS Management Analyst has been hired and a reallocation of approximately 70 percent of the position’s time has been dedicated to the Quality Management Division. The reallocation has resulted in other EMS staff being assigned additional duties and is not intended to be a permanent solution in lieu of adding a data analyst position to EMS QMD.		40%

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	<ul style="list-style-type: none"> • The Department needs to develop a system/flow where performance issues can be addressed in a systematic, objective manner. (pg. 22) 						
3.8	The EMS Department, organized labor, and the Human Resources Department need to work together to develop and implement “just culture” policies and doctrine within OCFA, especially for the high-volume EMS incidents. ¹¹ (pg. 23)	No	No	EMS/HR	The program has been designed and initial meetings with labor have taken place and will be ongoing. This will include the feedback form.		50%

3.9	<p>The CQI team needs a robust CQI electronic data system.</p> <ul style="list-style-type: none"> • OCFA needs to make information technology a priority as it relates to EMS delivery. • The Department needs to bolster its information technology role given its involvement in data-driven decisions. • The Department needs to utilize its ImageTrend electronic patient care report (ePCR) software to maximize its use. • OCFA needs its CQI team to have a full understanding of its ePCR system so it can maximize its use. Include automated functions that audit ePCRs for accuracy and completeness. (pg. 23) 	No	No	EMS	<p>In progress. The EMS Department continues to evaluate IT software which can be utilized to enhance the CQI process. Think AI software/technology needs assessment has been finalized. Validation module has been purchased to improve efficiencies within the ImageTrend PCR and FirstPass is currently being developed to automate functions of the QA process.</p>		90%
3.10	<p>The Department needs to revise its standards for documentation. These standards should be based on standards of care, best practices, and County policy where applicable. (pg. 23)</p>	No	No	EMS	<p>In progress. A revision to the Documentation SOP has been submitted into the review process in 9/2021. A working version of the EMS Handbook is nearing completion which will allow the updated Documentation SOP to move through the approval process towards 2023 mid-year.</p>		85%
3.11	<p>The Department needs to develop sound quality</p>	No	No	EMS	<p>In progress. A revision to the Documentation SOP has been</p>		75%

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	indicators to measure patient care documentation to OCFA requirements. Department-wide training and regular publishing the performance data will help personnel comprehend the impacts of their work. (pg. 23)				submitted into the review process. This is the first step in developing an accurate measure and improving data quality. A working version of the EMS Handbook is nearing completion which will allow the updated Documentation SOP to move through the approval process towards 2023 mid-year.		

3.12	<p>The EMS Department quality management program should include:</p> <ul style="list-style-type: none"> • A Quality Manager from suppression with no less than Captain rank, allowing them to communicate and garner trust with the rank-and-file personnel. • The Department should reconfigure the EMS committee to more closely follow state EMS guidelines by utilizing the Quality Task Force Model. The EMS committee should be renamed the EMS Equipment Committee and its role be clearly defined as to its function and its place in the hierarchy. • When input is needed to solve identified issues, the Department needs to utilize the Quality Task Force to make recommendations back to the Technical Advisory Committee. • The Department needs to incorporate field personnel in the CQI process. This can be done through peer review. (pg. 24) 	No	No	EMS	<p>Completed. The EMS Department has been restructured to reflect these changes. A Captain now heads the Quality Management Division within EMS and a CQI team has been established. The team will be complete with the arrival of a newly hired EMS Coordinator in 10/2021.</p>	10/2021	100%
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No.	Recommendation	# New Positions	New Cost Increase?	Responsible Dept/Bureau	Status / Results	Date Completed	% of Completion
3.13	<p>The Department needs to develop a role for the field providers to play in the implementation of education and training.</p> <ul style="list-style-type: none"> • The use of field personnel will integrate them into the process and allow them to feel more like a provider of EMS that a recipient. • The use of field personnel will reduce the burden on the Nurse Educators and will allow them to focus more on training and education development, as well as any roles they are required to conduct in CQI. (pg. 26) 	No	No	EMS	Completed. An EMS Training Cadre of Paramedics has been established and the cadre is routinely used to support training activities and as evaluators for PM accreditations.	10/2020	100%
3.14	The delivery of training needs to be scheduled in a centralized manner. Schedule	No	No	EMS/Field Operations	Completed. Operations training and EMS now reside under one Assistant Chief of EMS and	7/2020	100%

Note: The page number referenced in the recommendation description refers to the location of the recommendation within the respective SLA 36 report.



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No.	Recommendation	# New Positions	New Cost Increase?	Responsible Dept/Bureau	Status / Results	Date Completed	% of Completion
	training needs to be conducted on a common calendar so both EMS and Operations can view upcoming and scheduled training. (pg. 26)				Operations Training. This transition has increased the coordination of training between the Departments.		
3.15	The decision to alter the training schedule needs to be priority-based. The priority should be established by the Department, not the individuals conducting the training. (pg. 26)	No	No	EMS	Completed.	7/2020	100%
3.16	The Department quality management program should drive training and education. (pg. 27)	No	No	EMS	Completed. The restructure of the EMS Department has established this as a normal practice.	10/2020	100%
3.17	EMS supply and logistics needs to be an integral part of the EMS strategic plan. It should be identified as its own division in the	No	No	EMS	No additional staffing has been put in place to achieve this recommendation		20%

Note: The page number referenced in the recommendation description refers to the location of the recommendation within the respective SLA report. 37



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	Department organization plan, and it must be adequately funded. (pg. 28)						
3.18	OCFA should consider two EMS supply provision options: <ul style="list-style-type: none"> • Complete outsourcing of EMS supply and logistics. The Department should consider utilizing a supplier to manage supply inventory, costs, and caches to provide for just-in-time inventory restocking. • Or, staff EMS logistics with civilian personnel who specialize in logistics delivery and maintenance to ensure that supply best practices are applied and 	No	Yes	EMS/Business Services/Service Center	The EMS section is now staffed with a Supply Services Specialist position to support the delivery and maintenance function.	8/2020	100%



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No.	Recommendation	# New Positions	New Cost Increase?	Responsible Dept/Bureau	Status / Results	Date Completed	% of Completion
	consistently conducted. (pg. 29)						
3.19	The Department needs to review its current controlled drugs policy and re-design practices to meet current regulations and best practices and to take full advantage of current technology. (pg. 29)	No	No	EMS	The Department continues to seek IT solutions for better narcotic tracking. Think AI software/technology needs assessment has been finalized and an RFP is in the award phase for a new narcotic dispensing system. Implementation of the new narcotics dispensing and tracking system will be in place by year end.		75%
3.20	Through the EMS reorganization, appropriate staff must be solely dedicated to licensure and certification. (pg. 31)	TBD	Yes	EMS	Pending future financial feasibility and prioritization.		0%
3.21	Department budget/fiscal activities such as billing and expenditures need to be	No	No	EMS	Will be evaluated for further direction.		50%

Note: The page number referenced in the recommendation description refers to the location of the recommendation within the respective SLA report. 39



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No.	Recommendation	# New Positions	New Cost Increase?	Responsible Dept/Bureau	Status / Results	Date Completed	% of Completion
	conducted by support staff who have expertise in these areas. (pg. 31)						
3.22	The Department needs an information technology plan that identifies data collection needs and emphasizes the ability to easily extract reports. (pg. 31)	No	No	EMS/IT	Completed. A contractor was hired to conduct a needs assessment of information technology within EMS. Think AI software/technology needs assessment has been finalized and the needs analysis and executive summary are complete. RFP and budget authorization for replacement of PYXIX automated medication dispensing machines completed.	1/2023	100%
3.23	The EMS data system needs to assign each patient a unique identifier. It is critical the Department collect data	No	No	EMS	Completed.	1/2022	100%

Note: The page number referenced in the recommendation description refers to the location of the recommendation within the respective SLA 40 report.



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No.	Recommendation	# New Positions	New Cost Increase?	Responsible Dept/Bureau	Status / Results	Date Completed	% of Completion
	regarding its patients. (pg. 31)						
3.24	Through the OCFA reorganization, an infection control program needs to be created which should be managed by a person who is also responsible for implementing infection control. (pg. 33)	No	No	EMS	Completed. Through the pandemic, infection control program has been enhanced and the infection control policy has been revised.	8/2021	100%

Note: The page number referenced in the recommendation description refers to the location of the recommendation within the respective SLA report. 41



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No.	Recommendation	# New Positions	New Cost Increase?	Responsible Dept/Bureau	Status / Results	Date Completed	% of Completion
3.25	The Department should consider outsourcing the vaccination of its personnel. Vaccinations could be conducted by an outside vendor that would focus solely on managing, tracking, and administering vaccinations per the scope designed by OCFA. The process would be managed by the designated infection control officer. (pg. 33)	No	No	EMS	An assessment is being conducted for outsourcing all vaccinations.		80%
3.26	OCFA needs to reaffirm a culture emphasizing the importance of the EMS business line. (pg. 38)	No	No	EMS/Executive Management	Ongoing efforts are being made and the pandemic has elevated the importance of EMS within the organization.		80%
3.27	OCFA needs to develop a clear EMS mission and level of service, supported by a strong quality management	No	No	EMS/Executive Management	Completed. A mission statement for the EMS Department has been developed through an inclusive process with the EMS staff.	10/2020	100%

Note: The page number referenced in the recommendation description refers to the location of the recommendation within the respective SLA report. 42



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No.	Recommendation	# New Positions	New Cost Increase?	Responsible Dept/Bureau	Status / Results	Date Completed	% of Completion
	program that promotes performance. (pg. 55)						
3.28	OCFA needs to promote the culture of EMS being an important business line in new recruits to begin building legacy. Initial hiring and recruit training need to emphasize EMS and its role and importance to the community and OCFA. (pg. 38)	No	No	EMS/Executive Management	Completed. There are ongoing efforts to increase the value of EMS within the organization. A Paramedic Accreditation Academy has been developed which provides more training for PMs and lost days in EMS BLS week were restored.	2/2019	100%
3.29	The Department needs an internal strategic plan. The plan needs to be a living, breathing document designed to drive decision-making. Once completed, the plan needs to be distributed and regularly identified as the driving force behind decision-making. (pg. 38)	No	No	EMS/Executive Management	Completed. This assessment continues to provide strategic guidance. A new plan will be developed. Efforts will be ongoing.		100%

Note: The page number referenced in the recommendation description refers to the location of the recommendation within the respective SLA report. 43



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3.30	In conjunction with labor, OCFA needs to develop stronger incentives to retain staff officers in EMS positions, ideally longer than for the current two-year minimum. (pg. 38)	No	No	EMS/Executive Management	OCFA has made progress with the implementation of a Telecommuting SOP.		40%
3.31	When a Battalion Chief or Captain assigned to EMS promotes, OCFA should discuss with the bargaining units if there is any acceptable way to keep that promoted person in EMS until their time commitment is up (without negatively impacting the promotional line). (pg. 38)	No	No	EMS/Executive Management/HR	Completed. Agreements have been established to consider this before a move is made.	1/2021	100%



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3.32	The Department needs to implement a revised organizational framework (chart). The Department needs to consist of branches and divisions. Supervisors should be given clear work expectations and should be able to interpret those expectations to the people who report them. The organization structure needs to be program-based so work roles and responsibilities are clearly defined. Clear roles and responsibilities will make it easier for supervisors to monitor the performance of their subordinates. (pg. 39)	No	No	EMS/Executive Management/HR	Completed. The EMS Department has been restructured into three divisions. The divisions are Training, Quality Management and Logistics. Workflow has been established.	10/2020	100%
3.33	The Department should have the existing, capable management analyst work	No	No	EMS	Efforts will be ongoing. Will expand the role of the Management Analyst.		70%

Note: The page number referenced in the recommendation description refers to the location of the recommendation within the respective SLA 45 report.



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No.	Recommendation	# New Positions	New Cost Increase?	Responsible Dept/Bureau	Status / Results	Date Completed	% of Completion
	with the team to develop work metrics that will measure where and how work is being performed in the Department. This data will identify gaps in staff hours and can be used to assist in budget preparation for the Department. (pg. 39)						
3.34	The Department needs to ensure the Nurse Educators are properly placed, understand where they fit in the Department organizational chain of command, and understand how they function within that structure. (pg. 39)	No	No	EMS	Completed. The EMS Department has been restructured into three divisions. The divisions are Training, Quality Management and Logistics. Workflow has been established.	10/2020	100%
3.35	The nurses need to be as centralized as possible (even for a portion of the workweek) at a common	No	No	EMS	Completed. The nurses do meet more regularly with their supervisors due to the reorganization. A centralized	5/2023	100%

Note: The page number referenced in the recommendation description refers to the location of the recommendation within the respective SLA report. 46



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	facility with their leadership and support team. Currently, the nurses decide where their offices are and spend very little time at headquarters. Centralizing the nurses will provide daily interaction with Department personnel, which will help facilitate and create positive relationships and create the sense of being on a team. (pg. 39)				office space has been established for the Quality Management Division at RFOTC, leaving only the three training nurse educators decentralized. The training nurse educators meet regularly with their supervisor at HQ. The decentralized offices for the nurse educators have significant value to the organization as a whole.		
3.36	OCFA needs to develop a staffing plan based on operational need for hiring paramedics. The plan should project vacancies and the time lag from the hiring process to time on the job. (pg. 39)	No	No	EMS/Executive Management/HR	The OCFA is in the process of completing an aggressive recruitment of firefighter/paramedics and continues to evaluate options for the recruitment and development of paramedics. Efforts will be ongoing.	3/2022	100%

Note: The page number referenced in the recommendation description refers to the location of the recommendation within the respective SLA report. 47



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No.	Recommendation	# New Positions	New Cost Increase?	Responsible Dept/Bureau	Status / Results	Date Completed	% of Completion
3.37	OCFA needs to evaluate all aspects of acquiring new paramedics. This includes hiring already licensed and/or accredited paramedics who, once they have completed the hiring process, fore academy, and probation, can be assessed by the Department and placed into a designated paramedic position. (pg. 39)	No	No	EMS/Executive Management/HR	Completed. The OCFA completed an aggressive recruitment of firefighter/paramedics. The OCFA continues to evaluate options for the recruitment and development of paramedics. Efforts will be ongoing.	2/2022	100%
3.38	The Department should be re-organized as shown in the following figure. An additional 12 FTEs are also recommended. (pg. 42)	12	Yes	EMS	Pending future financial feasibility and prioritization. The reorganization is complete without the necessary additional staffing.		30%
Fleet Service Level Assessment							
4.1	OCFA should research smaller, more fuel efficient or hybrid/electric light-duty sedans, SUVs, and pickup	No	Yes	Logistics	Complete. As part of the annual CIP budget development for Fleet, Staff will continue to research	6/2020	100%

Note: The page number referenced in the recommendation description refers to the location of the recommendation within the respective SLA 48 report.



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No.	Recommendation	# New Positions	New Cost Increase?	Responsible Dept/Bureau	Status / Results	Date Completed	% of Completion
	vehicles and implementing using them where feasible. (pg. 66)				alternative fuel technologies and vehicle types. For FY 2023/24, fleet sedan replacements include electric/fuel-electric hybrid vehicles. Efforts will be ongoing.		
4.2	OCFA should consider broader use of motor pool vehicles where operationally reasonable by re-assessing individual vehicle assignments pursuant to current agency policy. (pg. 66)	No	No	Logistics	Complete. As part of the 2020/2021 budget development process, staff assessed individual vehicle assignments and will transition these individuals into pool vehicles. Efforts will be ongoing.	6/2020	100%
4.3	OCFA should consider the use of smaller, more-fuel efficient or electric/hybrid vehicles in the motor pool to the extent practical. (pg. 66)	No	No	Logistics	Complete. See 4.1 above	6/2020	100%
4.4	OCFA should annually evaluate the continued use of	No	No	Logistics	Completed. As part of the annual CIP process, all vehicles	6/2019	100%

Note: The page number referenced in the recommendation description refers to the location of the recommendation within the respective SLA report. 49



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No.	Recommendation	# New Positions	New Cost Increase?	Responsible Dept/Bureau	Status / Results	Date Completed	% of Completion
	vehicles beyond their expected useful service life, particularly those vehicles more than 10 percent beyond expected useful service life. (pg. 67)				are reviewed to determine their remaining useful life and when they should be removed from frontline to reserve status. Vehicles 10% beyond their useful life are evaluated to determine if they should be surpluses or used by Training or the cadet program. Efforts will be ongoing.		
4.5	OCFA should budget annual CIP funding sufficient to maintain all frontline response apparatus within expected useful service life and reserve and support apparatus/vehicles to no more than 10 percent past expected useful service life. (pg. 67)	No	No	Logistics	Completed. As part of the annual CIP process, all frontline apparatus (along with reserve / support apparatus) is reviewed to ensure that there is sufficient funding available to replace them based on their useful life.	6/2019	100%
4.6	OCFA should develop a more strategic approach to vehicle	No	No	Logistics	Complete. Fleet staff has worked collaboratively with the	12/2021	100%

Note: The page number referenced in the recommendation description refers to the location of the recommendation within the respective SLA 50 report.



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No.	Recommendation	# New Positions	New Cost Increase?	Responsible Dept/Bureau	Status / Results	Date Completed	% of Completion
	procurement to: (1) ensure procurement of budgeted vehicles within the fiscal year cycle and (2) provide sufficient procurement capacity to maintain the frontline/surge capacity response fleet within expected useful service life and as much of the reserve and support fleet to no more than 10 percent past expected useful service life as possible. (pg. 67)				Purchasing Department to streamline the fleet procurement process including the purchasing vehicles “off the lot”, purchasing off Cooperative agreements with other agencies, and has initiated use of requests for bids with lease-purchase options. Efforts will be ongoing.		
4.7	OCFA should provide 3.0 FTE additional Technician capacity as soon as possible to eliminate the current VRR backlog, maintain preventive service intervals, <i>and</i> provide a modest level of surge capacity; Citygate further	3	Yes	Logistics	Completion of backlogged fleet replacements, moving light duty mechanics to the heavy side, and extending work hours has successfully addressed the backlog of vehicle repair requests (VRR).	3/2023	100%

Note: The page number referenced in the recommendation description refers to the location of the recommendation within the respective SLA 51 report.



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No.	Recommendation	# New Positions	New Cost Increase?	Responsible Dept/Bureau	Status / Results	Date Completed	% of Completion
	suggests that any additional shop staffing be considered in context with suggested alternative service model recommendations. (pg. 67)						
4.8	The Division should consider a reorganization or redistribution or responsibilities to provide a more equitable span of control among supervisory personnel. (pg. 67)	No	No	Logistics	Fleet staffing reorganization completed, include reclassification of Coordinator position to Fleet Supervisor, creating a redistribution of responsibilities and greater depth of supervision, and Admin. Assistant position reclassified to a Business Analyst.	12/2022	100%
4.9	The Division should evaluate other potential flexible work schedule alternatives, including swing/night/weekend work shift options, to accommodate employee	No	No	Logistics	Flexible work schedule, evaluated; determined implementation requires additional staff (Equipment Technicians) to accomplish; request will be submitted for additional staff employees as		85%

Note: The page number referenced in the recommendation description refers to the location of the recommendation within the respective SLA report. 52



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No.	Recommendation	# New Positions	New Cost Increase?	Responsible Dept/Bureau	Status / Results	Date Completed	% of Completion
	needs while maintaining or improving shop output. (pg. 67)				part of a future Logistics' budget request.		
4.10	The Division should modify its current fire apparatus inspection interval to ensure a safety inspection at least every 90 days <i>and</i> inspection of all apparatus systems and components at least annually in conformance with industry best practices and recommendations. (pg. 68)	No	No	Logistics	Under evaluation for further direction. Recommendation would require additional staff (Equipment Technicians) to accomplish. Additional staff needed to accomplish; request will be submitted.		10%
4.11	The Division should review, validate, and prioritize or cancel all outstanding VRRs and notify the applicable vehicle operator/station of any cancelled VRRs. (pg. 68)	No	No	Logistics	Outstanding Vehicle Repair Requests have been reduced from 1,200 at the time of the assessment to 476 effective April 2023; or approximately 42% of annual orders to 18% effective April 2023. Measures to continue reduction of VRR turnaround are ongoing.	3/2023	100%

Note: The page number referenced in the recommendation description refers to the location of the recommendation within the respective SLA report. 53



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No.	Recommendation	# New Positions	New Cost Increase?	Responsible Dept/Bureau	Status / Results	Date Completed	% of Completion
4.12	OCFA should provide additional staffing as determined appropriate to improve overall parts room capacity and efficiency to minimize shop workflow interruptions to the degree possible. (pg. 68)	Yes	Yes	Logistics	Additional positions will be requested as part of the 2024/25 Budget process.		20%
4.13	The Division should accept a vehicle safety inspection by Santa Ana shop personnel, or an OCFA mobile Field Technician, upon completion of any preventive maintenance or repairs performed by the Santa Ana shop in lieu of inspection at the OCFA shop prior to the vehicle being returned to service. (pg. 68)	No	No	Logistics	Completed.	7/1/2020	100%



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No.	Recommendation	# New Positions	New Cost Increase?	Responsible Dept/Bureau	Status / Results	Date Completed	% of Completion
4.14	The OCFA Fire Chief and Deputy Chief of Administration & Support Services Bureau should direct the Assistant Chief of Logistics and Fleet Division management to prioritize the recommendations contained in this report, develop a detailed action plan to address each recommendation as part of the upcoming OCFA Strategic Plan, and then report to the Budget and Finance Committee (Audit Committee) on action plan completion. (pg. 68)	No	No	EM/Logistics	Completed.	6/2020	100%

Note: The page number referenced in the recommendation description refers to the location of the recommendation within the respective SLA 55 report.



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No.	Recommendation	# New Positions	New Cost Increase?	Responsible Dept/Bureau	Status / Results	Date Completed	% of Completion
4.15	The Executive Management Team and Fleet Division management should continue to engage with shop staff as a strategic partner in addressing the issues identified in this report though a labor-management task force to facilitate restoration of trust and to enable the Division to move forward as a cohesive business unit. (pg. 68)	No	No	EM/Logistics	Completed. This will be an ongoing effort and has already produced very positive results	7/2020	100%
4.16	The Division should review and update all existing shop policy and procedure documents to conform with appropriate OCFA format and content. (pg. 69)	No	No	Logistics	In progress. Existing Fleet policy and procedures are in the process of being updated to conform to the OCFA format.		50%
4.17	All OCFA policies and procedures, and guidelines should be accessible	No	No	Logistics	Completed. All OCFA Policies and Procedures are available to employees via the HIVE.	6/2020	100%

Note: The page number referenced in the recommendation description refers to the location of the recommendation within the respective SLA 56 report.



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No.	Recommendation	# New Positions	New Cost Increase?	Responsible Dept/Bureau	Status / Results	Date Completed	% of Completion
	electronically to all employees via intranet/internet. (pg. 69)						
4.18	OCFA should provide enhanced technical training and certification of its fleet Technician personnel to include relevant ASE training/certification and CFMA training/certification. (pg. 69)	No	Yes	Logistics	Completed. Additional training courses have been scheduled. A one-week CFMA training course was held the week of November 1, 2021, with five OCFA mechanics attending. Efforts will be ongoing.	7/2020	100%
4.19	OCFA should consider establishing a career path for Assistant Technicians and Technicians desiring to advance to Senior Technician. (pg. 69)	No	No	Logistics	Completed. OCFA competed a Classification and Compensation study of Fleet Services. Included in the study was the restructuring of the current career path to allow Assistant Technicians progress to Senior Technicians without a loss of salary	6/2021	100%
4.20	The Division should seek additional vendor training to	No	Yes	Logistics	In progress. AssetWorks training resources being	3/2023	100%

Note: The page number referenced in the recommendation description refers to the location of the recommendation within the respective SLA report. 57



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No.	Recommendation	# New Positions	New Cost Increase?	Responsible Dept/Bureau	Status / Results	Date Completed	% of Completion
	more effectively utilize the available capabilities of AssetWorks. (pg. 69)				evaluated by Fleet Business Analyst and Management Analyst Aug – Dec 2021. Implementation of additional application functions planned for Jan. 2022 – June 2022, including data extraction for improved fleet CIP status reporting.		
4.21	The Division should coordinate with Information Technology to determine the availability and suitability of a car code reader interface for AssetWorks. (pg. 69)	No	No	Logistics	Telematics installed and implemented for entire fleet, providing automated transmission/interface to AssetWorks for maintenance management and scheduling.	2/2023	100%
4.22	The Division should coordinate with Information Technology and shop staff to determine whether tablets/iPads are the most suitable technology solution for Technician needs. (pg. 69)	No	No	Logistics	Complete; Tablets issued to shop staff.	9/2021	100%

Note: The page number referenced in the recommendation description refers to the location of the recommendation within the respective SLA report. 58



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No.	Recommendation	# New Positions	New Cost Increase?	Responsible Dept/Bureau	Status / Results	Date Completed	% of Completion
4.23	OCFA should convert its facility fuel dispensing and management to an automated electronic system with appropriate security features. (pg. 69)	No	Yes	Logistics	In progress. Staff is researching various vendors and technologies. Funding will be requested as part of the FY 2023/24 CIP. Currently working with new fuel supplier on a test reporting system.		40%
4.24	OCFA should consider upgrading the current Administrative Assistant position to a Business Analyst or other classification appropriate to provide analyst-level administrative support capacity. (pg. 69)	No	No	Logistics	Complete. An analysis of current and future Fleet administrative job duties submitted to Human Resources determined that functions previously performed by the Fleet Services Administrative Assistant position evolved to the job classification of Business Analyst.	6/2021	100%
Human Resources Service Level Assessment							
5.1	Develop a comprehensive HR Policies and Procedures Manual to act as a	No	Yes	HR	70% of Human Resources Department Standard Operating Procedures have been reviewed and updated.		70%

Note: The page number referenced in the recommendation description refers to the location of the recommendation within the respective SLA report. 59



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	centralized source for reference. <ul style="list-style-type: none"> • The HR Department needs to implement a project that gathers all its information resources, both internal and external, and reviews and assesses them for the purpose of creating a single resource. The use of an outside vendor to complete this task is highly recommended. The goal should be to complete this project within six months. (pg. 16) 				The Merit and Selection Rules were updated in October 2022. The Personnel and Salary Resolution is expected to be reviewed and updated in late 2023.		
5.2	Develop an Operations Manual that outlines specific steps to complete a task or program.	No	No	HR	Following the update of the Personnel & Salary Resolution and the Merit and Selection Rules, staff may begin the process developing an		50%

Note: The page number referenced in the recommendation description refers to the location of the recommendation within the respective SLA 60 report.



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No.	Recommendation	# New Positions	New Cost Increase?	Responsible Dept/Bureau	Status / Results	Date Completed	% of Completion
	<ul style="list-style-type: none"> • Use the manual as a training tool and resource for HR employees. The Operations Manual will correspond to the HR Policies and Procedures Manual cited in the Recommendation #1. An Operations Manual can be created within 18 months. (pg. 16) 				Operations Manual for each division.		
5.3	Independently review each examination process and components to measure potential adverse impact. In those cases where review finds that adverse impact exists, evaluate the exam process to ensure it is valid and job-related. (pg. 17)	No	No	HR	Completed. A process is in place. The Promotional and Recruitment Work Group (JLM) continues to evaluate and restructure all safety promotional/recruitment examination/selection processes accordingly. For non-safety recruitments, all examination/selection processes are reviewed and	9/2021	100%

Note: The page number referenced in the recommendation description refers to the location of the recommendation within the respective SLA report. 61



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No.	Recommendation	# New Positions	New Cost Increase?	Responsible Dept/Bureau	Status / Results	Date Completed	% of Completion
					edited with the hiring manager prior to the opening of recruitment.		
5.4	Abandon the 80 percent passing score requirement for all examination processes. Independently evaluate each exam process and determine a reasonable cutoff score that minimizes adverse impact. (pg. 17)	No	No	HR	Completed. This has been discussed with the JLM and 80% is the preferred scoring for all safety recruitments. Non-safety score requirements are discussed during the recruitment development phase of each recruitment and the OCFA has remained with the 80% pass point. Exceptions do occur when the examination is pass/fail (Biddle, Dispatcher Select advantage exam, tools assessment exams, etc.) or when a minimum requirement is required (typing speed, memorization, listening skills exam, etc.).	9/2021	100%



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No.	Recommendation	# New Positions	New Cost Increase?	Responsible Dept/Bureau	Status / Results	Date Completed	% of Completion
5.5	Review performance standards and practices for probationary employees, especially for the Fire Recruit academy. (pg. 17)	No	No	HR	Completed. Probationary Firefighter performance is evaluated based on standardized job-related criteria. Information is in the Probationary Firefighter Task Book which include manipulative skill evaluation sheets and company evolution sheets, appraisal forms and videos for training.	9/2021	100%
5.6	Create a concise mission statement with a vision, core values, and guiding principles, as well as specific and measurable performance objectives that will deliver quality service to OCFA and the public. <ul style="list-style-type: none"> • Employee probationary periods are often referred to as the last examination 	No	No	HR	Will be evaluated for further direction.		30%

Note: The page number referenced in the recommendation description refers to the location of the recommendation within the respective SLA report. 63



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No.	Recommendation	# New Positions	New Cost Increase?	Responsible Dept/Bureau	Status / Results	Date Completed	% of Completion
	process. Much effort and resources are expended to create an eligible list for Fire Recruits, which annually, established to hire 100 new Fire Recruits. It is critical that <i>as soon as possible</i> , all new sworn and non-sworn probationary employees be evaluated on valid job-related standards. (pg. 20)						
5.7	Develop a systematic method of identifying, evaluating, and addressing HR Department issues to minimize disruption in the Department when a crisis does arise. (pg. 20)	No	No	HR	Completed. Bi-weekly meetings take place with all HR Managers and the Assistant Chief/HR Director to discuss projects, issues, goals and objectives that may affect one or more of the divisions. This meeting includes resource identification and management, identifying	9/2021	100%

Note: The page number referenced in the recommendation description refers to the location of the recommendation within the respective SLA 64 report.



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					project leads, and mapping out timelines and goals. These meetings ensure collaboration and minimizes redundant efforts. It also ensures consistent communication to the rest of the department.		
5.8	Determine the staffing necessary to meet HR service demands by assessing the level of service delivery desired and OCFA priorities. (pg. 20)	No	No	HR	A staffing model was developed that will address service delivery for the Department. This includes hiring the D&I Coordinate, one (1) Senior HR Analyst, and reclassification of two (2) HR Analyst. This staff plan was completed on December 3, 2021.	12/2021	100%

Note: The page number referenced in the recommendation description refers to the location of the recommendation within the respective SLA report. 65

5.9	<p>Build trust and respect with employee associations through collaborative working relationships while ensuring transparency, Recommended actions include:</p> <ul style="list-style-type: none"> • The ER Division should take the lead in re-establishing relationships with the employee associations after receiving staffing necessary to support this effort. • The Benefits Division should take the lead in developing an agency-wide philosophy and strategy for implementing a comprehensive classification and compensation plan. (pg. 20) 	No	No	HR	<p>Completed. All key leadership positions in the Human Resources Department are staffed. The Department continues to work on succession planning which includes cross training and professional development of Senior and Analyst level positions to ensure continuity of services.</p>		100%
5.10	<p>Re-initiate the study of the classification in the RM Division to create a professional career path. (pg. 20)</p>	No	No	HR	<p>Completed. The RM Division positions were evaluated. Recommendations to reclassify some positions and retitle others was adopted by the Board of Directors. The new organizational structure of the Divisions provides pathways to promotion for staff.</p>	7/2021	100%
5.11	<p>Hire a Behavioral Health professional to relieve the Risk Manager of directly</p>	1	Yes	HR	<p>Completed. HR onboarded the new Behavioral Health and Wellness Coordinator position</p>		100%

Note: The page number referenced in the recommendation description refers to the location of the recommendation within the respective SLA 66 report.



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	administering the program with safety personnel, under the direction of the Risk Manager. (pg. 20)				in 2022 and programs are all operational.		
5.12	Obtain security expertise for protecting facilities and provide the resources necessary to effectively perform the agency’s security-related work. Transfer security responsibilities outside of HR. (pg. 21)	No	Yes	HR/Logistics	In progress. Based on the Threat and Vulnerability Assessment of the RFOTC campus prepared by Security Strategies International, and a Physical Security Assessment completed by the Orange County Intelligence Assessment Center (OCIAAC), The upgrade/replacement of the RFOTC access control system is in process; bids were due on 3/30/2022, and are currently being evaluated for recommendation to award in May 2022. Additionally, meetings with the Ad-Hoc Security Committee have been		90%

Note: The page number referenced in the recommendation description refers to the location of the recommendation within the respective SLA report. 67



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No.	Recommendation	# New Positions	New Cost Increase?	Responsible Dept/Bureau	Status / Results	Date Completed	% of Completion
					initiated to arrive at recommendations for award of a replacement Physical Security Services contract for consideration by the Board of Directors at their July 6, 2022, meeting.		
5.13	Develop specific and measurable performance objectives for employee performance standards. Prepare an annual HR Department performance report that highlights the Department’s accomplishments for the year. (pg. 20)	No	No	HR	A Performance Evaluation Committee was formed with representatives from management and labor to review the employee performance evaluation tool. The focus is to ensure that the standards are measurable, specific, and reflective of the day-to-day duties of each position. A pilot roll out of the revised PER form will commence in January 2024.		80%

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No.	Recommendation	# New Positions	New Cost Increase?	Responsible Dept/Bureau	Status / Results	Date Completed	% of Completion
5.14	Develop an employee recognition program for the HR Department employees, which can be variable as to frequency and type rather than just one annual award. Recognize and celebrate smaller, significant accomplishment, anniversaries, etc. (pg. 20)	No	No	HR	Completed. The HR Teams holds quarterly all-hands staff meetings which highlight positive news in the department including accomplishments, work anniversaries and other celebratory news. In addition, the department holds small get-togethers to celebrate things like birthdays, births, and other life milestones of individual staff members.	9/2021	100%

5.15	<p>Create and implement a strategy for employing a workforce that reflects the community by:</p> <ul style="list-style-type: none"> Assessing the workforce and labor market to establish a geographic marketing area for recruiting. Designing an aggressive outreach plan that can realistically attract quality and diverse job applicants. This work should be performed in collaboration with management and the employee associations. Creating an outreach recruitment team dedicated to marketing the OCFA as an employer of choice. Funds will be needed to support the recruitment efforts, and employee volunteers will be needed to attend recruitment events. (pg. 22) 	No	No	HR	<p>Completed and ongoing. A 60-member Outreach and Recruitment Team was formed with focused recruitment efforts in several sectors including High School and College Athletics, Military, EMT/Paramedic Schools, Cadets, Handcrew, Professions/Non-Sworn. Under the leadership of a Battalion Chief, the team's recruitment efforts are in alignment with the Authority's mission to recruit and retain top talent.</p>	5/2023	100%
5.16	<p>Develop a strategy and process to increase the completion rate of employee performance evaluations. (pg. 23)</p>	No	No	HR	<p>Completed and ongoing. A HR staff member is responsible for running a regular query of outstanding performance evaluations monthly. For staff that are evaluated using NEOGOV, automatic emails are</p>	12/2021	100%

Note: The page number referenced in the recommendation description refers to the location of the recommendation within the respective SLA report. 70



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					generated to remind supervisors and managers that evaluations are due.		
5.17	Research and develop a plan to expand the use of NEOGOV Perform for all OCFA employees, including new performance evaluation forms, and commit resources for additional staff, if required. (pg. 23)	No	No	HR	The next phase will see the roll-out of the NEOGOV perform module to Chief Officers Associations following the completions of the updates to the COA Performance Appraisal Form		70%
5.18	Develop a required employee performance evaluation training course for supervisors and managers, teaching supervisors and managers how to properly complete the performance evaluation and effectively communicate the ratings in the performance evaluation. (pg. 23)	No	No	HR	A Performance Management module is part of each Academy Curriculum for Company Officers. Additional training resources were identified, and a webinar course was made available to all Chiefs, Supervisors and Managers on writing performance evaluations (February 2022) This online	2/2022	100%

Note: The page number referenced in the recommendation description refers to the location of the recommendation within the respective SLA report. 71



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					option will be deployed annually as a refresher. In person options for training will continue to be evaluated as COVID restrictions are lifted.		
5.19	Develop accountability for completion of performance evaluations through the creation of a job performance standard for supervisors. Include the completion of performance evaluations as a factor in determining merit salary increases for supervisors. (pg. 24)	No	No	HR	In progress.		50%

5.20	<p>Demonstrate strong commitment to the mission and vision of the HR Department by:</p> <ul style="list-style-type: none"> • Strengthening the HR Department's inclusion in major OCFA decisions. • Planning new OCFA programs or assignments in collaboration with the HR Department to minimize the time the HR Department spends operating in a reactionary mode. • Allowing the HR Department to operate within agency policies and values without interference outside of the chain of command and labor relations discussions. • Relying on the HR Department to provide sound and credible advice. (pg. 26) 	No	No	HR	Completed. HR Department staff are key stakeholders in committees engaged in evaluated OCFA operations including the Training and Promotions JLM, Personnel Evaluations Committee,	9/2021	100%
5.21	Consider studying the transfer of major and sensitive alleged employee misconduct investigations from the Employee Relations Division to a new and separate unit that is accountable to and reports	No	No	HR	Completed. Under the direction of the Assistant Chief/Human Resources Director, major or sensitive alleged employee misconduct investigations may be conducted by an independent 3 rd -party investigator to mitigate any conflicts and	9/2021	100%

Note: The page number referenced in the recommendation description refers to the location of the recommendation within the respective SLA report. 73



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	directly to the Fire Chief or a Deputy Chief. (pg. 26)				ensure a fair an unbiased investigation. The Assistant Chief/Human Resources Director reports to the Deputy Chief/Administration and Support Bureau		
5.22	Reinstitute the Organization Development Division and place it under the HR Department. Allow the Division to: <ul style="list-style-type: none"> • Perform a thorough study of the OCFA’s professional training needs and desires. (pg. 27) • Develop a comprehensive training program that supports employee professional development, leadership development, and succession planning. (pg. 27) 	No	No	HR	The Training Division under the direction of the Assistant Chief/EMS oversees training and preparation for safety promotions. For non-safety personnel, funds have been set aside for the development of a leadership development program for managers, supervisors and front-line employees. The Department is in the process of recruiting for the Organizational Development and Training Manager who will oversee programs for professional staff.		75%

Note: The page number referenced in the recommendation description refers to the location of the recommendation within the respective SLA 74 report.



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No.	Recommendation	# New Positions	New Cost Increase?	Responsible Dept/Bureau	Status / Results	Date Completed	% of Completion
5.23	Work with the IT Division within the Logistics Department to develop enhanced protection of employee personnel files so that data can be shared with Risk Management and third-party secure sites to complete required reports in a timely manner. (pg. 28)	No	No	HR/Logistics	Discussions have started to evaluate the use of LaserFiche Document Management System as a secure method for storing personnel files. This would allow for secure access by all HR divisions. IT is prepared to support HR/Risk Management with implementation.		40%
5.24	Research and implement an automated signature program that will electronically send documents under a secure system to internal parties required to sign any document. (pg. 28)	No	No	HR/Logistics/Business Services	Both the Purchasing Division and the Finance Divisions have implementing workflow processes in collaboration with IT. This includes automating the Purchase Requisition and the Accounts Payable invoice approval processes. The Clerk's Office is exploring the possibility to expand the workflow and approval processes to incorporate		75%

Note: The page number referenced in the recommendation description refers to the location of the recommendation within the respective SLA report. 75



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					contracts/agreements. IT is prepared to support the Clerk/HR/Risk Management with implementation.		
5.25	Support the July 2019 implementation of electronic employee time sheets for non-safety personnel. (pg. 28)	No	No	HR/Business Services	Business Services is implementing a program that would allow for digital entry of time and electronic approvals. The Finance Division and two Human Resources divisions have transition to electronic timesheets. Staff is currently piloting electronic time sheets in ECC and will continue to phase in all other non-safety departments by Spring of 2024. Human Resources successfully migrated two divisions to electronic time sheets with deployment planned for the whole department.		75%



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No.	Recommendation	# New Positions	New Cost Increase?	Responsible Dept/Bureau	Status / Results	Date Completed	% of Completion
5.26	Study the feasibility of providing exam raters with tablet computers (e.g., iPads) to record exam performance, leading directly to more effectively tabulating scores and retaining examinations records. (pg. 28)	No	No	HR	Completed. iPads are used on a case-by-case basis. We have utilized “iPads” for use during oral interviews and the reviews are mixed. For large scale recruitment (FF), raters prefer the paper copy method as during these interviews candidates are asked to submit additional information and paper score sheets and additional candidate material is easier for multiple interview panels to maintain. Since allowing for Zoom interviews, raters who are participating in Zoom interviews while off site have utilized electronic material with some success. Issues are typically with the rater’s ability to utilize	9/2021	100%

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					electronic technology and in some cases inability to access documents (applications and rating sheets). We have found some success in utilizing electronic testing for candidates and we will continue to utilize when appropriate as the electronic testing has become more prevalent		
5.27	Revise the office configuration to house the HR Director within the HR Department. (pg. 29)	No	No	HR	Completed. It was determined that the HR Director would continue to be housed in the Executive Offices to facilitate necessary collaboration and communication with the other Executive Managers.	9/2021	N/A

Note: The page number referenced in the recommendation description refers to the location of the recommendation within the respective SLA report. 78



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No.	Recommendation	# New Positions	New Cost Increase?	Responsible Dept/Bureau	Status / Results	Date Completed	% of Completion
<i>Executive Management Service Level Assessment</i>							
6.1	Executive-level coaching by experienced members of an outside consultant with executive-level experience is needed. Team-building exercises and off-site workshops are very valuable in filling the gaps and building trust between Executive Management Team members. (pg. 11)	No	No	EM	Completed. At the time of this review, the Executive Team had been experiencing turnover among team members and was in the process of rebuilding. Bob Roper (former Fire Chief with executive level experience) was retained for development and coaching services. The team has now established stable processes with (1) recurring weekly meetings among the Deputy Chiefs and Fire Chief; (2) weekly meetings of the full Executive Management Team; (3) monthly offsite lunches for the Executive Team; and (4) monthly expanded meetings to include all Executive	1/2021	100%

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					Management and the Division Chiefs.		
6.2	Continue to work on team-building practices and strengthen communication avenues through Executive Management Team members. Consider building a Team interaction agreement to maintain a culture of unified communication and decision-making processes. (pg. 12)	No	No	EM	Completed. See 6.1 above	1/2021	100%
6.3	Continue to recruit, train, and hire qualified Public Information Officers (PIOs) who will handle routine and emergency communications for OCFA. Ensure there is a qualified pool of PIOs to spread the commitment and reduce burnout. (pg. 12)	No	No	EM/Corporate Communications	Completed. Effective January 2020, PIO staffing was materially modified and enhanced to transition from a single 40-hour workweek PIO, to three shift PIOs for coverage 24-hours per day, 7 days per week. In addition, a pool of relief PIOs are available to	1/2020	100%

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					provide relief for the three shift PIOs when needed.		
6.4	Where appropriate, include the Fire Marshal and other non-field operations managers in executive-level policy change discussions and encourage the Field Operations Assistant Chief and Fire Marshal / Assistant Chief to regularly meet. (pg. 12)	No	No	EM/Community Risk	Completed. The Fire Marshal participates in weekly Executive Team meetings, which are also attended by the Operations Assistant Chief for mutual vetting of potential policy or process changes impacting both departments.	1/2020	100%
6.5	Consider holding the Executive Leadership Team meeting every two weeks. (pg. 13)	No	No	EM	Completed. See 6.1 above	1/2021	100%
6.6	Develop a process by which non-time-sensitive executive-level issues are vetted through affected Executive Management Team members (pg. 13)	No	No	EM	Completed. See 6.1 above	1/2021	100%

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No.	Recommendation	# New Positions	New Cost Increase?	Responsible Dept/Bureau	Status / Results	Date Completed	% of Completion
6.7	Create a Strategic Planning team/process/unit to provide planning expertise and establish sound planning practices throughout the organization. (pg. 13)	No	Yes	EM	Pending future financial feasibility and prioritization. As part of the proposed spending plan for overhead contributions that OCFA would receive if the City of Fullerton joins OCFA, staff proposed the addition of a Strategic Planning Battalion Chief to facilitate the creation of this unit, and to lead ongoing strategic planning work for OCFA.		30%

Note: The page number referenced in the recommendation description refers to the location of the recommendation within the respective SLA report. 82



ORANGE COUNTY FIRE AUTHORITY
Organizational Service Level Assessments
Recommendations Status Report – November 2023

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No.	Recommendation	# New Positions	New Cost Increase?	Responsible Dept/Bureau	Status / Results	Date Completed	% of Completion
<i>Business Services Service Level Assessment</i>							
7.1	Conduct an externally facilitated team building and goals and objectives development session to improve Department cohesiveness, communication, and morale.	No	Yes	BSD	Completed and on-going with two BSD Team Building Events per calendar year. Currently being implemented with internal resources. Two Department Wide team building events have taken place in the 2022 and 2023 calendar years. The 2023 Goals and direction for the Business Services Department are shared as part of the Division Quarterly Update meetings.	10/2023	100%
7.2	Implement team-wide meeting schedules throughout the Department, involving division management and team members to maximize communication effectiveness. This would	No	No	BSD	Completed. Assistant Chief has Bi-weekly one on one meetings with Division Managers, bi-weekly Division Manager Team meetings, quarterly Division meetings, and bi-yearly Department all hands team building events. Division	1/2022	100%

Note: The page number referenced in the recommendation description refers to the location of the recommendation within the respective SLA report. 83



ORANGE COUNTY FIRE AUTHORITY
Organizational Service Level Assessments
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	include establishing set times during the week or month so employees can plan around existing work schedules.				Managers conduct bi-weekly meetings with Managers and Managers conduct meetings with staff.		
7.3	A Department second-in-command should be identified to ensure business continuity if the Assistant Chief cannot be reached to provide direction (while out of the office, on vacation, sick, etc.). This recommendation relates to the assignment of an existing management staff member to this responsibility. This responsibility could also be rotated between the applicable management staff to assist in succession development.	No	No	BSD	Completed and efforts will be ongoing. Assistant Chief assigns a Division Manager to provide direction when out of the office. This is assigned on a rotational to encourage succession planning.	9/2021	100%



ORANGE COUNTY FIRE AUTHORITY
Organizational Service Level Assessments
Recommendations Status Report – November 2023

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7.4	Expand performance measures to include measures specific to all sections of the department.	No	No	BSD	Performance metrics are maintained for each Division and updated as part of the Budget Development process.		100%
7.5	Build a more supportive, integrated, recognized, and valued business services unit by: <ol style="list-style-type: none"> 1. Acknowledging staff concerns and issued when they are raised. 2. Using scheduled Department meetings and one-on-ones to engage staff in problem solving, including concerns and issues raised as well as on OCFA-wide issues to which the Department can be of service internally. 	No	No	BSD	Completed and ongoing. Discussions during Division Manager one-on-one meetings, Division Manager all hands meetings, quarterly all hands Division meetings include the review of Department goals, upcoming large-scale projects, morale, productivity, and performance. Meetings include the opportunity to share and address openly any issues impacting staff and potential resolutions. Meetings also provide all employees an opportunity to share ideas, process improvements, and		100%

Note: The page number referenced in the recommendation description refers to the location of the recommendation within the respective SLA report. 85



ORANGE COUNTY FIRE AUTHORITY
Organizational Service Level Assessments
Recommendations Status Report – November 2023

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	3. Combining listening and problem-solving components into team building efforts, allowing Department members to be engaged in solutions for business operations issues including those that may touch on improving services to other OCFA departments and services.				demonstrate that our employees are valued. Two Departmentwide Team Building events have taken place in 2022 and 2023		
7.6	The fee waiver/revision policy should be amended to set parameters for oversight when it is within policy to waive or revise the collections fees.	No	No	BSD	Completed. Staff reviewed the policy based on Citygate’s recommendation and determined the policy is working as intended.	11/2021	100%



ORANGE COUNTY FIRE AUTHORITY
Organizational Service Level Assessments
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No.	Recommendation	# New Positions	New Cost Increase?	Responsible Dept/Bureau	Status / Results	Date Completed	% of Completion
7.7	Update the CAL-Card policy to ensure effective allocation procedures and more specifically identified disciplinary consequences of CAL-Card misuse.	No	No	BSD	In progress. Travel and Business Expense SOP update in progress. After the Travel and Business Expense SOP changes have been made, Purchasing will update the CALCard SOP.		75%
7.8	Complete the current review of CAL-Cards use history and necessity for current cardholders to determine if all cards distributed are necessary.	No	No	BSD	Complete. Staff has implemented routine audits of cardholders to continually ensure all cards currently distributed are necessary.	4/2022	100%
7.9	Consolidate the various fund balance policies into a single policy to minimize confusion.	No	No	BSD	Staff evaluated the recommendation and will continue to maintain separate fund balance policies and list them in a centralized location such as the budget book.	5/2023	100%
7.10	Establish a process to randomly test the adherence	No	No	BSD	In progress. While existing random tests already exist, staff are developing additional		60%

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ORANGE COUNTY FIRE AUTHORITY
Organizational Service Level Assessments
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	to policies within the Department.				methods to test internal policies prior to the external audit.		
7.11	Ensure timely reporting of fraud items and disposition to the appropriate body as required by the fraud hotline program.	No	No	BSD/HR	Responsibility of the fraud hotline lies with the Human Resources Department. Treasury Procedures were revised in 2021 to include additional reporting on banking related fraud items. Staff drafted a conceptual fraud policy to augment the current fraud hotline. Conceptual policy is on hold due to departure of Finance Division Manager.	2021	100%
7.12	Explore expanding the processing time for payroll after the end of the pay period to reduce need for staff duplication of effort to correct errors.	No	No	BSD	Prepared MOU language to expand payroll processing times and tentatively scheduled for a 2024 implementation. Date changed approved by all labor groups.	7/2023	100%

Note: The page number referenced in the recommendation description refers to the location of the recommendation within the respective SLA report. 88



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Organizational Service Level Assessments
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7.13	Complete the current review for expansion of the processing time for accounts payable to three days prior to the processing of accounts payable checks.	No	No	BSD	Reviewed and updated policy have been completed in 2021. Additionally, the AP deadline calendar was further updated to provide staff a full two weeks to review. New calendar released October 2023.	11/2021	100%
7.14	Continue to work with the Human Resources Department to formalize roles and responsibilities between two departments to eliminate duplication of effort related to payroll and Human Resources employee service.	No	No	BSD/HR	Payroll and HR benefits meet on a recurring 2-week basis to discuss processes, coordinate upcoming projects, resolve issues, improve communication and reduce duplication of effort.	7/2023	100%
7.15	Develop a procedure to standardize billing information input.	No	No	BSD	Initiated discussion with CRR as this will be addressed via the implementation of the new ORION, CRR RMS System.		70%
7.16	Determination should be made as to the Information	No	No	Logistics/BSD	IT has documented the source code. Furthermore, IT, BSD and		75%

Note: The page number referenced in the recommendation description refers to the location of the recommendation within the respective SLA report. 89



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Organizational Service Level Assessments
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	Technology Department staff's understanding of the source code relating to the current staffing and timekeeping systems. Training should be conducted, as necessary, to ensure the systems have multiple levels of support to ensure that, in the case of a major system failure, payroll operations can continue.				Operations/Staffing conducted a staffing needs assessments with Gartner LLC. The assessment will be finalized in November 2023.		
7.17	Automate procurement and accounts payable processes within the two separate purchasing and accounts payable functions. The current project relating to the use of the Laserfiche program in the accounts payable function should be	No	No	BSD	Purchasing component, in progress and completed electronic approval of purchase requisitions. Finance initiated pilot testing in December 2022. Testing of vendor modifications is currently in progress.		75%
							75%

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Organizational Service Level Assessments
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	revisited to ensure it meets the needs of OCFA.						
7.18	Repeat training on the Banner system for all applicable staff. This training should include instruction on the modules available on the most recent upgrade of the Banner system.	No	TBD	BSD	Currently, training is provided on an as needed basis for new and existing employees. Desk procedures are being reviewed and updated to reflect application updates.		75%
7.19	Explore options for implementation of a fully integrated Enterprise Resource Planning system that meets the needs of the Department and OCFA. This would provide the best solution to not only address workload issues caused by the numerous workarounds currently used but would also increase staff efficiency while providing other positives to	No	No	BSD	Funding for the new ERP is included in the 2022-23, 5-year CIP. The BSD and IT staff participated in a GFOA hosted ERP implementation training on 10/31/2022. BSD and IT have partnered to conduct a needs assessment of the staffing system in anticipation of a new ERP system. The staffing needs		50%

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Organizational Service Level Assessments
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	benefit the organization such as strengthening internal controls, improving policies and procedures, providing comprehensive training programs for staff, increasing staff morale, and reducing overtime to minimize staff burnout.				assessment will be finalized in November 2023.		
7.20	Review the Departments system’s support capabilities in the Information Technology Department to ensure they are adequate.	No	No	BSD/Logistics	See above responses to recommendations 7.16, 7.19 for Timekeeping and Staffing application support. ERP funding now included in 5-Year CIP. Staffing needs assessment to be finalized November 2023.		75%
7.21	Department management should continue to work with the Human Resources Department to develop formal professional development and training	No	No	BSD/HR	This is tied to HR 5.22 and the addition of a new Organizational and Development Training Coordinator. HR is developing organization wide training that		60%

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Organizational Service Level Assessments
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	programs. Once developed, the programs should be presented to Department staff for feedback and revised as appropriate.				is applicable to the BSD. BSD staff have attended Situational Leadership training, Women in the Fire Service conference, and have signed up for Courageous Conversations training. These training and development opportunities are in addition to technical and professional organizational training and conferences BSD staff attends.		
Community Risk Reduction Service Level Assessment							
8.1	Consider reorganization of the Planning and Development New Construction Section to provide a better ratio or supervisors to subordinates.	No	No	EM/CRR	Reviewed recommendation to better the supervisor to subordinate ratio. New tiering plan has been implemented.	3/2022	100%
8.2	Develop clear performance goals for the Wildland Pre-	No	No	CRR	Short term goals have been identified and completed. Long	3/2022	100%

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	Fire Management Division Planning Section.				term goals are under development.		
8.3	Collaborate with all OCFA member jurisdictions to ensure early CRR involvement in all development discussions to provide early awareness of any CRR concerns or prospective conditions.	No	No	CRR	Liaison team members are assigned to all partner agency Planning Departments to improve collaboration efforts.	3/2022	100%
8.4	Consider assigning all Environmental Impact Report reviews to a single Planning and Development Section position, with appropriate redundant capacity and skill to ensure consistency of review and response.	No	No	CRR	Training underway to transfer EIR responsibilities to newly recruited CRR Business Analyst.		50%
8.5	Consider adding appropriate internal analyst-level capacity to manage implementation, training, and ongoing overall	No	No	CRR	Completed. Reclassification of three Management Assistants to Business Analyst utilizing	3/2022	100%

Note: The page number referenced in the recommendation description refers to the location of the recommendation within the respective SLA 94 report.



ORANGE COUNTY FIRE AUTHORITY
Organizational Service Level Assessments
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	Orion program coordination and Department-wide data analysis.				funds from a vacant position. Cost neutral.		
8.6	Consider providing additional critical IT/GIS support capacity for the CRR Department.	TBD	TBD	CRR/Logistics	GIS has expanded its support footprint with CRR by developing multiple applications including Field Maps/PFS, LRA Defensible Space Inspections and Power Poles Inspections collector apps. ORION CRR RMS system is including a GIS mapping component to improve CRR visibility and inspection		95%
8.7	Provide appropriate internal CRR capacity to provide overall planning and coordination of all Department training.	No	No	EM/CRR	Completed. Recruited an Assistant Fire Marshal to create and facilitate an annual training program. Funding was already budgeted.	3/2022	100%
8.8	Provide 6.6 to 13.25 additional estimated FTE staffing capacity as funding	6.6 to 13.25	Yes	EM/CRR	Pending future financial feasibility and prioritization.	3/2022	100%

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Organizational Service Level Assessments
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	permits to resolve identified staffing capacity gaps and single points of failure.						
8.9	Conduct an updated fee study in 2022.	No	No	CRR/BSD	Completed. Updated fees were approved by the Board of Directors at the April 28, 2022 meeting.	4/2022	100%



Orange County Fire Authority
AGENDA STAFF REPORT

Board of Directors Meeting
November 16, 2023

Agenda Item No. 2E
Consent Calendar

**Approval of Annual Statement of Investment Policy,
Broker/Dealer List and Investment Authorization**

Contact(s) for Further Information

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Summary

This annual agenda item is submitted to the Committee in compliance with the Orange County Fire Authority's (OCFA's) Investment Policy that requires the Annual Statement of Investment Policy be reviewed and approved by the Budget and Finance Committee and the Board of Directors. The Broker Dealer List that the Treasurer uses for competitive bidding of investment purchases is updated every three years and is also included for approval.

This item is also being submitted in compliance with Government Code provisions which require the Board of Directors to review and renew the annual delegation of investment authority to the Treasurer for a one-year period.

Prior Board/Committee Action

On November 8, 2023, the Budget and Finance Committee reviewed the proposed agenda item and directed staff to place the item on the Board of Directors agenda by a vote of 6-0 (Directors Lumbard, Patel, and Nguyen absent).

RECOMMENDED ACTION(S)

1. Review and approve the submitted Investment Policy of the Orange County Fire Authority, to be effective January 1, 2024.
2. Review and approve the Broker/Dealer list for a term of three years through November 30, 2026.
3. Pursuant to Government Code Sections 53601 and 53607, renew delegation of investment authority to the Treasurer for a one-year period, to be effective January 1, 2024.

Impact to Cities/County

Not Applicable.

Fiscal Impact

Not Applicable.

Background

The Statement of Investment Policy is reviewed annually and revised by the Treasurer, if needed. The proposed Policy is then submitted to the Budget and Finance Committee and Board of Directors for approval to become effective on January 1 for the calendar year. During the past year, there were no significant legislative amendments to the California Government Code regarding investments. Therefore, staff recommends that the investment policy remain unchanged. The Proposed Investment Policy is attached for review and approval, to be effective January 1, 2024. (Attachment 1).

The Investment Policy encourages competitive bidding on investment transactions from an approved list of broker/dealers. The list is reviewed every three years by the Treasurer and revised, if needed. The proposed List is also submitted for approval. The OCFA's policy for selection and use of broker/dealers follows the best practices issued by the Government Finance Officers' Association and is prescribed by policy in the OCFA's Annual Investment Policy (Attachment 1).

To qualify, broker/dealers must meet the following *minimum* requirements:

- Agree to comply with the investment policies of the Authority
- Be a primary or regional dealer that qualifies under the Securities and Exchange Commission Rule 15C3-1 (Uniform Net Capital Rule)
- Have a branch office in California
- Be experienced in institutional trading practices and familiar with the California Government Code as related to investments for local governmental agencies
- Have been in business for at least three years
- Provide current audited financial statements
- Provide proof of Financial Industry Regulatory Authority (FINRA) certification

Staff also reviewed the FINRA reports that provide additional information on any disclosure events where the firm was named as a respondent. FINRA oversees virtually all U.S. stockbrokers and brokerage firms. It writes and enforces the rules based on Federal securities law and is overseen by the Securities and Exchange Commission. The financial industry is heavily regulated and litigated as reflected in the number of disclosure events reported by FINRA.

In reviewing the FINRA reports, staff considered the following in assessing the disclosure events:

- Did any events occur in the government sector also known as the municipal market?
- Are the brokers assigned to OCFA's account involved in any events ?

If answers to above are "yes"

- Did the firm take action against the employees involved?
- Did the firm take steps to put controls in place to prevent the event from reoccurring?

The following firms are currently on OCFA's list of approved broker/dealers and recommended for renewal: FHN Financial Securities Corp., Raymond James Financial Services Inc., RBC Capital Markets, LLC, Stifel, Nicolaus & Company, Inc., and Wedbush Securities Inc. Their FINRA reports are updates since their last review in 2020. **The Lead Broker from each recommended firm has no disclosure events in FINRA.**

This list shall remain in effect for three years until November 30, 2026 as required by OCFA's Investment Policy. Staff has the ability to discontinue use of the approved brokers at any time, and prior to the conclusion of the three-year period.

Attachment(s)

Proposed Investment Policy (to be effective January 1, 2024)



ORANGE COUNTY FIRE AUTHORITY

2024 INVESTMENT POLICY

INVESTMENT POLICY

History of OCFA's Investment Policy & Cash Management Program

Following the formation of the Orange County Fire Authority (the Authority) in March 1995, OCFA funds were initially invested in the Orange County Investment Pool (OCIP) and the Local Agency Investment Fund (LAIF). At that time, investment options were limited since the Authority was using County services for treasury, banking, and accounting systems pending implementation of its own systems. During this transitional stage, OCFA staff worked to establish independent banking, custodian, and broker/dealer agreements, installed a portfolio management system, and implemented the Banner Financial System. Staff also researched and drafted a comprehensive Investment Policy. On January 1, 1997, the OCFA Board of Directors adopted the Investment Policy and appointed a Treasurer. Immediately thereafter, OCFA assumed in-house responsibility for Treasury services and implemented its own Cash Management & Investment Services Program.

As the Cash Management program evolved, all remaining funds in the OCIP were gradually withdrawn. The Treasurer invested these funds in individual securities and scheduled maturities to correspond with cash flow needs. Investments included Treasury and Federal Agency securities, prime quality commercial paper, money market mutual funds (U.S. Treasury Obligations), and LAIF.

Since inception in 1997, the Treasurer has continued to refine the Investment Policy on an annual basis to meet the changing needs of the Authority. The Policy has also been formally recognized by the Association of Public Treasurer's of the United States and Canada (APTA US&C). Certification is awarded when an investment policy meets the professional standards set forth by MTA US&C. Agencies may submit for re-certification after significant changes are made to the Policy.

During the past year, there were no significant legislative amendments to the California Government Code regarding investments.

INVESTMENT POLICY

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INVESTMENT POLICY

ORANGE COUNTY FIRE AUTHORITY

1. **Policy:** The Orange County Fire Authority shall invest public funds in such a manner as to comply with state and local laws; ensure prudent money management; provide for daily cash flow requirements; and meet the objectives, in priority order, of safety, liquidity, and return on investment.
2. **Scope:** This Investment Policy applies to all financial assets of the Orange County Fire Authority which are available for investment by the Authority's Treasurer; except that funds in the Authority's deferred compensation plan, defined contribution plan, and security deposits held in escrow in lieu of retention are excluded from this investment policy. The funds governed by this policy may be referred to herein as the OCFA portfolio.
 - 2.1. The Authority's funds are accounted for in the Annual Comprehensive Financial Report (ACFR) and include the funds listed below and any new fund created by the Board of Directors unless specifically exempted.
 - Fund 121 General Fund
 - Fund 122 Facilities Maintenance and Improvements
 - Fund 123 Capital Projects
 - Fund 124 Communications and Information Systems Replacement
 - Fund 133 Vehicle Replacement
 - Fund 171 Structural Fire Fund Entitlement
 - Fund 190 Self-Insurance Fund
 - Fund 422 Extra-Help Retirement Trust
 - 2.2. Bond fund investments will be held separately and made in accordance with the bond debenture requirements.
 - 2.3. Retiree Medical Trust Funds may be held separately from the OCFA portfolio and invested in accordance with California Government Code Section 53620 to 53622 and/or Section 31694.3.
 - 2.4. Additional trust funds may be set up to help reduce OCFA's unfunded pension

liability. These funds may be held separately from the OCFA portfolio and invested according to guidelines provided by OCFA.

3. **Prudence:** The standard of prudence to be used shall be the “prudent investor” standard (in Probate Code Sections 16040-16042 and 16045-16054 cited as Uniform Prudent Investor Act) and shall be applied in the context of managing the overall portfolio, not to a single item within a diversified portfolio. Investments shall be made with judgment and care (under circumstances then prevailing) which persons of prudence, discretion and intelligence exercise in the management of their own affairs, not for speculation, but for investment, considering the probable safety of their capital as well as the probable income to be derived.
4. **Objectives:** The primary objectives of investment activities, in order of priority, shall be:
 - 4.1. *Safety:* Safety of principal is the prime objective of the investment program. The investment program shall be designed and implemented to ensure preservation of capital in the overall portfolio. Invested funds shall be **diversified** to minimize the risk of loss resulting from over concentration of assets in a specific maturity, specific issuer, or specific class of securities.
 - 4.2. *Liquidity:* The investment portfolio shall be structured in a manner which strives to time the maturity of securities with cash requirements. Additionally, since not all possible cash demands can be anticipated, the portfolio should consist of securities with an active secondary or resale market.
 - 4.3. *Return on investment:* The Authority shall attempt to obtain a reasonable return provided that the requirements of safety and liquidity are first met.
5. **Authorization and Delegation of Authority:** Under California Government Code Section 53601, the legislative body of a local agency (i.e., the Authority’s Board of Directors) is authorized to invest surplus moneys as specified in that code section. In accordance with California Government Code Section 53607, this authority is delegated to the Treasurer of the Authority for a one-year period. Subject to review, the Board of Directors may renew the delegation of authority under this code section each year. The Treasurer will be responsible for all investment transactions and shall establish a system of controls to regulate the activities of officials involved in any aspect of the investment program.
 - 5.1. *Investment Procedures:* The Treasurer shall establish written procedures for the operation of the investment program consistent with this Investment Policy. The procedures should include reference to: safekeeping, repurchase agreements, wire transfer agreements, banking service contracts and collateral/depository agreements. The procedures shall include explicit delegation of authority to persons responsible for investment transactions. No person may engage in an investment transaction, except as provided under the terms of this policy and the procedures established by the Treasurer.
 - 5.2. *Delegation in Treasurer’s Absence:* In the Treasurer’s absence, the Treasurer delegates investment authority in the following order to (1) the Assistant Chief,

Business Services and (2) the Deputy Chief, Administration and Support Bureau or Fire Chief's designee.

6. Duties and Responsibilities:

- 6.1. *Treasurer*: Charged with responsibility for all public funds and securities belonging to or under the control of the Authority, and for the deposit and investment of those funds in accordance with the principles of sound treasury management and in accordance with the applicable laws, ordinances and policies adopted by the Authority.
- 6.2. *Auditor*: Charged with recording investment activity in the accounting records and with verifying the Treasurer's records with broker confirmations, bank statements and safekeeping records.
- 6.3. *Assistant Chief, Business Services*: Charged with responsibility (in the absence of the Treasurer) for all public funds and securities belonging to or under the control of the Authority and for their deposit. Duties related to investment activities shall be performed by staff other than those responsible for the accounting of those investments.
- 6.4. *Deputy Chief or Fire Chief's designee*: Charged with responsibility (in the absence of the Treasurer and Assistant Chief, Business Services) for all public funds and securities belonging to or under the control of the Authority and for their deposit. Duties related to investment activities shall be performed by staff other than those responsible for the accounting of those investments.
- 6.5. *Fire Chief*: Charged with responsibility for implementation of and conformance to the policies and procedures approved by the Board of Directors for the investment of the Authority's funds.
- 6.6. *Budget and Finance Committee*: Charged with responsibility for investment oversight. The Committee shall review the monthly investment reports and significant investment activity being undertaken. The Committee's recommendations shall be reported in a monthly investment report to the Executive Committee.
- 6.7. *Executive Committee*: Charged with responsibility to receive, review and approve the monthly investment report, following review by the Budget and Finance Committee.
- 6.8. *Board of Directors*: May delegate to the Treasurer for a one-year period the authority to invest the Fire Authority's funds. Subject to review, the Board may renew the delegation of this authority each year. The Board shall also annually consider and approve a written Statement of Investment Policy at a public meeting. Any change to the Investment Policy at any time shall also be considered by the Board at a public meeting.

7. **Ethics and Conflicts of Interest:** All officers, employees, and participants in the Authority's investment process shall:
- 7.1. Act responsibly as custodians of the public trust.
 - 7.2. Avoid any transaction that might impair the public confidence in the Authority's ability to serve the citizens of our area of responsibility.
 - 7.3. Refrain from personal business activities that could conflict with proper execution of the investment program, or which could impair their ability to make impartial investment decisions.
 - 7.4. Abide by the Authority's adopted Conflict of Interest Code, which by reference is incorporated into this Investment Policy.
 - 7.5. The Treasurer, the Assistant Chief, Business Services, the Deputy Fire Chief or Fire Chief's designee and the Fire Chief shall be prohibited from doing personal investment transactions with any broker or securities dealer with whom OCFA does business, with the exception of the OCFA's primary bank for banking services. Employees shall subordinate their personal investment transactions to those of OCFA, particularly with regard to the time of purchases and sales.
8. **Authorized Financial Dealers and Institutions:** To promote the optimum yield on the investment of Authority funds, investment procedures shall be designed to encourage competitive bidding on transactions from approved financial institutions or broker/dealers.
- 8.1. On a triennial basis, the Treasurer shall recommend a list of at least three financial institutions and broker/dealers who are authorized to provide investment services. The list shall be approved by the Budget and Finance Committee and the Executive Committee. All financial institutions and broker/dealers who wish to be considered for the list must meet the following minimum requirements:
 - 8.1.1 Must certify that they have read and agree to comply with the investment policies of the Authority.
 - 8.1.2 Must be a primary or regional dealer that qualifies under the Securities and Exchange Commission Rule 15C3-1 (Uniform Net Capital Rule).
 - 8.1.3 Must have a branch office in California.
 - 8.1.4 Must be experienced in institutional trading practices and familiar with the California Government Code as related to investments for local governmental agencies.
 - 8.1.5 Must have been in business for at least three years.

- 8.1.6 Must provide current audited financial statements.
 - 8.1.7 Must provide proof of Financial Industry Regulatory Authority (FINRA) certification.
 - 8.1.8 Other criteria as may be established in the *Investment Procedures Manual* of the Authority.
- 8.2. All financial institutions in which the Authority's public funds are deposited will supply the Treasurer with the following:
- 8.2.1 Current audited financial statements.
 - 8.2.2 Depository contracts.
 - 8.2.3 A copy of the latest FDIC call report.
 - 8.2.4 Proof that the institution is state or federally chartered.

9. **Authorized Investment Advisors and Investment Managers:**

Authorized Investment Advisors

Although the Authority does not currently use an investment advisor, these policies and procedures shall be applicable if an investment advisor is utilized in the future to provide advice and guidance for the investment of OCFA portfolio funds. Under Government Code, the Authority is authorized to engage specially trained and experienced firms for economic advice and services. The Board of Directors must approve, in advance, all contracts with an investment advisor, after review by the Authority's Counsel. The investment advisor may only provide advice and may not effectuate trades; he/she may not make investment decisions. The Treasurer shall provide the investment manager with a copy of the Authority's Investment Policy.

Authorized Investment Managers

The provisions above for authorized investment advisors also apply to authorized investment managers. In addition, an investment manager may effectuate trades upon specific authorization for each transaction; however, he/she may not make investment decisions. All investment decisions must be made and approved by the Treasurer in advance, before the investment manager is authorized to execute a transaction. The Treasurer shall provide the investment manager with a copy of the Authority's Investment Policy. Upon execution of any trade, the Authority must receive confirmation directly from the broker/dealer and the custodian, not from the investment manager. Investments recommended by the investment manager should be safe kept by the Authority's regular custodian, and not with the investment manager.

10. **Authorized and Suitable Investments:** The Authority is empowered by statute (California Government Code Section 53600 et seq., 53620 et seq., and Section 5922[d]) to invest in the following types of securities (see Section 15 of this Policy for maximum percentage limits imposed under Authority Policy):
- 10.1. U.S Treasury or Federal Agency securities.
 - 10.2. Collateralized or insured passbook savings accounts and demand deposits.
 - 10.3. Collateralized or insured certificates of deposit (or time deposits) placed with commercial banks (maximum term five years).
 - 10.4. Bankers acceptances (issued by one of the 10 largest domestic banks or 20 largest international banks based on assets) with maturities not to exceed 180 days. State statute restricts bankers' acceptances to no more than 40% of the agency's surplus funds and no more than 30% in any one commercial bank. Authority policy is more restrictive, with a maximum 25% limit (see Section 15.1.4). Bankers' acceptances are to be purchased only from institutions that are well capitalized as the term is defined in the glossary.
 - 10.5. Money market mutual funds whose portfolio consists solely of short-term treasury securities (i.e., one year or less remaining until maturity, at purchase). Mutual funds must be AAA rated by at least 2 of the 3 largest rating agencies.
 - 10.6. Repurchase agreements whose underlying collateral consists of U.S. Treasury obligations or U.S. government agency obligations and the collateralization level must be in accordance with Government Code section 53601(i)(2), effective January 1, 1996 (maximum maturity of 14 days). A Public Securities Association (PSA) Master Repurchase Agreement is required between the Authority and the bank or broker/dealer for all repurchase agreements transacted. Direct investment in reverse repurchase agreements is prohibited.
 - 10.7. Local Agency Investment Fund (State of California Pool).
 - 10.8. Commercial paper in compliance with the following requirements:
 - 10.8.1 Must be rated highest-quality by at least two of the following three nationally recognized rating agencies. Highest-quality ratings are defined as (1) Moody's Investor Services rating of P1; (2) Standard & Poor's rating of A1/A1+; (3) Fitch rating of F1/F1+.
 - 10.8.2 Investments will not be made with commercial paper issuers placed on negative credit watch by any one of the above rating agencies.
 - 10.8.3 Commercial paper issuers must be domestic corporations having assets in excess of \$500,000,000 and having an AA or better rating on its long term

debentures as provided by Moody's, Standard & Poor's, or Fitch.

- 10.8.4 Purchases of eligible commercial paper may not: (a) exceed 270 days to maturity; or (b) exceed 15% of the cost value of the portfolio. Although Government Code allows a maximum investment in commercial paper of 25%, Authority Policy maintains a 15% maximum, which is more restrictive.
- 10.8.5 The Treasurer shall conduct research on commercial paper issuers prior to investing OCFA funds with those issuers. The Treasurer will avoid investing in issuers with current events that involve negative financial implications that could lead to a downgrade to their credit rating. Sources of research will include, at a minimum, WSJ.com, Bloomberg.com, Marketwatch.com, and CNNMoney.com.
- 10.9. Negotiable certificates of deposit, issued by national or state-chartered banks or state or federal savings institutions, commercial bank, savings bank (savings and loan association), or credit union that uses a private sector entity that assists in the placement of certificates of deposit under specified conditions. Government Code limits negotiable certificates of deposit to 30% of the portfolio. Authority Policy, which is more restrictive, limits investment in these securities to 25% (see Section 15.1.5).
- 10.10. Proceeds of bonds or other indebtedness and any moneys set aside and pledged to secure payment of the bonds may be invested in accordance with the resolution, indenture, or other statutory provisions governing the issuance of those bonds or indebtedness.
- 10.11. Retiree Medical Funds may be held in a separate trust fund and invested as permitted under California Government Code Section 53620 to 53622 and/or Section 31694.3 for the purpose of paying health insurance benefits to retirees.
- 10.12. Additional trust funds may be set up to help reduce OCFA's unfunded pension liability. These funds may be held separately from the OCFA portfolio and invested according to guidelines provided by OCFA.
11. **Unallowable Investments / Restrictions:** The Authority shall **not** invest OCFA portfolio funds in the following instruments:
- 11.1. Derivatives, except for indirect investment through the State's Local Agency Fund.
- 11.2. Reverse repurchase agreements, although indirect investment through a pool is allowable up to a maximum of ten percent (10%) of the pool's portfolio.
- 11.3. Financial futures or financial options.

- 11.4. Common stocks or corporate bonds.
12. **Investment Pools:** Governmental sponsored pools and/or mutual funds should be carefully reviewed prior to investing and should be monitored on an ongoing basis. Requisite information on the pool includes the following:
 - 12.1. A statement of investment policy and objectives.
 - 12.2. A list of allowable investments.
 - 12.3. Disclosure regarding settlement and safeguarding of investments.
 - 12.4. Description of securities pricing (fair value) and whether GASB 31 compliant.
 - 12.5. An explanation of interest calculations and distributions, plus fee disclosures.
 - 12.6. Deposit and withdrawal restrictions.
 - 12.7. Disclosure of audit findings and reports.
13. **Collateralization:** Collateral must always be held by an independent third party with whom the Authority has a current custodial agreement.
 - 13.1. State law regarding collateralization of deposits of public funds requires that securities be held by an agent (i.e., a trust company) of the bank, which may include the bank's trust department only if acceptable to both the bank and the Treasurer, pursuant to California Government Code Sections 53656 and 53658. Under the provisions of California Government Code Section 53652, banks are required to secure the deposits of public funds, including certificates of deposits, by: a) pledging government securities with a value of 110% of the principal and accrued interest; b) pledging first trust deed mortgage notes having a value of 150% of the total agency deposit; or c) a letter of credit drawn on the Federal Home Loan Bank at 105% of the total agency deposit. Deposits must be secured at all times with eligible securities pursuant to Section 53651. A copy of the Call Report of Local Agency's Deposits and Securities must be supplied to the Authority and retained to document compliance with the collateral requirements.
 - 13.2. Collateralization of repurchase agreements must be at least 102% of the market value of principal and accrued interest. Collateral must consist of U.S. Treasury obligations or U.S. Agency obligations. Other specific requirements on repurchase agreements must be addressed in a master repurchase agreement between the Authority and the bank or broker/dealer.
 - 13.3. The Treasurer, at his/her discretion, may waive the collateral requirements for deposits up to \$250,000 which are fully insured by the Federal Deposit Insurance Corporation. The right of collateral substitution is granted.

14. **Safekeeping and Custody:** All security transactions shall be conducted on a delivery-versus-payment (DVP) basis. Securities will be held by a third party qualified custodian and evidenced by safekeeping receipts. The trust department of the Authority's bank may act as third party custodian, provided that the custodian agreement is separate and apart from the banking agreement.
15. **Diversification:** The Authority shall maintain a diversified portfolio to minimize the risk of loss resulting from over concentration of assets in a specific maturity, issuer, or security type.

15.1. *Restrictions on Securities:* At no time shall the Authority's portfolio be invested in a single security type or in a single financial institution or pool in excess of 15% of the total investment portfolio, with the following exceptions:

- | | | |
|--------|------------------------------|--|
| 15.1.1 | Treasury securities | 100% |
| 15.1.2 | Local Agency Investment Fund | 75% <i>(Excludes moneys deposited in LAIF bond funds.)</i> |
| 15.1.3 | Federal Agency securities | 75% |
| 15.1.4 | Bankers' Acceptances | 25% |
| 15.1.5 | Negotiable CD's | 25% |

15.2. *Exception for Automatic Overnight Sweep:* There shall be no restriction on the amount that is automatically swept from the Authority's bank or custody bank into a fund consisting solely of Treasury securities *on an overnight basis*, in order to accommodate immediate investment of large inflows of property taxes or other receipts, pending diversified investment into other securities by the Treasurer.

15.3. *Maturity Diversification:* Every effort will be made to match investment maturities to cash flow needs. Matching maturities with cash flow dates will reduce the need to sell securities prior to maturity, thus reducing the market risk. Maximum maturities shall be as follows:

- 15.3.1 At least 50% of the portfolio is limited to a period of one year or less. If the portfolio falls below the 50% threshold, a correction will be made within 30 days.
- 15.3.2 Unless matched to a specific requirement and approved by the Executive Committee and the Board of Directors, no portion of the portfolio may exceed five years.

16. **Internal Control:**

16.1. Internal policies and procedures shall be developed to assure that appropriate controls are in place to document and confirm all transactions. A separate *Investment Procedures Manual* shall be established to assist Treasury staff with daily

operations and shall be reviewed at least annually by the Treasurer.

- 16.2. An independent analysis by an external auditor shall be conducted annually to review internal control, account activity and compliance with policies and procedures.
- 16.3. To provide further protection of the Authority funds, written instructions require the Authority's bank to obtain verification of all wire transfers from two of the three following officers:
 - 16.3.1 Treasurer.
 - 16.3.2 Assistant Chief, Business Services.
 - 16.3.3 Deputy Fire Chief, or Fire Chief's designee.
17. **Performance Standards:** The investment portfolio shall be designed with the objective of obtaining a rate of return throughout budgetary and economic cycles, commensurate with investment risk constraints and cash flow needs.
 - 17.1. *Investment Strategy:* The Authority's basic investment strategy is to buy and hold investments until maturity. However, the Treasurer may sell a security due to adverse changes in credit or market risk or due to unexpected cash flow needs.
 - 17.2. *Market Yield (Benchmark):* The basis used by the Treasurer to determine whether market yields are being achieved shall be the rates of return from the following combination of indices: Local Agency Investment Fund (LAIF) and 3-month, 6-month and 1-year Treasury Bills (constant maturity).
 - 17.3. *Review:* The investment policy shall be reviewed at least annually by the Budget and Finance Committee and approved by the Board of Directors to ensure its consistency with the overall objectives of safety (including diversification), liquidity and return, as well as its relevance to current law and financial/economics trends. The Authority's philosophy prohibits speculation (i.e., purchasing securities with the intent to profit from anticipated changes in future market conditions). Leveraging or borrowing money for the purpose of investing is specifically prohibited.
18. **Reporting:**
 - 18.1. *Monthly Reports:* In compliance with Government Code Sections 53607 and 53646, the Treasurer shall file a monthly investment report with the Clerk of the Board, who will submit copies to the Board of Directors, the Executive Committee, the Budget and Finance Committee, the Fire Chief, the Deputy Chief, Administration and Support Bureau, the Assistant Chief, Business Services, the Auditor, and the Authority's outside auditor (as required). The investment report will be agendaized for the monthly meetings of the Budget and Finance Committee and the Executive Committee, and any Board member may request inclusion of the report on the

Board's agenda at any time. This report shall certify that the Treasurer has complied with the Authority's *Investment Procedures Manual* and will include an *Executive Summary*, which provides a condensed summary of the most important information in the report, plus a detailed report covering the following elements:

- 18.1.1 Type of investments and percent that each type represents in the portfolio.
- 18.1.2 Issuer.
- 18.1.3 Purchase date.
- 18.1.4 Date of maturity.
- 18.1.5 Amount of deposit.
- 18.1.6 Face value of the securities.
- 18.1.7 Current market value of securities.
- 18.1.8 Portfolio yield and comparison to benchmark.
- 18.1.9 Interest earnings.
- 18.1.10 Percentage of portfolio maturing within one year, 1-3 years, 3-5 years and over 5 years.
- 18.1.11 Statement relating the report to the Investment Policy.
- 18.1.12 Statement on availability of funds to meet its obligations for the next 30 days and the next 6 months.
- 18.1.13 Description of funds, investments, or programs managed by contracted parties.
- 18.1.14 Statement of compliance of the portfolio with the investment policy or manner in which the portfolio is out of compliance.
- 18.1.15 GASB 31 effects on financial statements.
- 18.1.16 Comments on the fixed income markets and economic conditions.
- 18.1.17 Potential changes in future portfolio structure (if any), including risk factors.
- 18.1.18 Any other information required by the Board.

18.2. *Annual Reports*: The Treasurer shall submit an annual report to the Budget and

Finance Committee and the Executive Committee, following the close of the fiscal year which shall certify that the Treasurer has complied with the Authority's investment procedures and detail the following:

- 18.2.1 Analysis of the composition of the investment fund.
- 18.2.2 Discussion of investment risk in the portfolio.
- 18.2.3 GASB 31 impacts.
- 18.2.4 A review of trends regarding the size of the investment fund.
- 18.2.5 Portfolio performance and comparison to benchmark.
- 18.2.6 Investment income.
- 18.2.7 A statement of anticipated investment fund activity in the next fiscal year.

18.3 Investment Policy Adoption: The Treasurer shall annually render to the Fire Chief, the Budget and Finance Committee, and the Board of Directors a Statement of Investment Policy.

GLOSSARY

Active Deposits. Funds which are immediately required for disbursement.

Active investment management. An investment strategy that involves the active trading of securities in an attempt to earn above-average returns on a portfolio. Active investment management requires frequent monitoring of financial markets.

Agency. A debt security issued by a federal or federally sponsored agency. Federal agencies are backed by the full faith and credit of the U.S. Government. Federally sponsored agencies (FSAs) are backed by each particular agency with a market perception that there is an implicit government guarantee. An example of federal agency is the Government National Mortgage Association (GNMA). An example of an FSA is the Federal National Mortgage Association (FNMA).

Arbitrage. Generally, transactions by which securities are bought and sold in different markets at the same time for the sake of the profit arising from a difference in prices in the two markets.

Bankers' Acceptances (BA's). Time drafts or bills of exchange that are accepted payment by banks engaged in the financing of international trade. BA's finance the importation, exportation, shipment or storage of foreign and domestic goods. BA's are usually backed by documentation such as invoices, bills of lading, or warehouse receipts. Upon acceptance by a bank, a BA becomes an irrevocable and unconditional obligation of the accepting bank, while it is also an obligation of the drawer as well as any endorser thereof.

Basis point. By common agreement, .01% of yield on a fixed income security (1/100 of 1%).

Bond Equivalent Yield (BEY). An annual yield, expressed as a percentage, describing the return provided to bond holders. A bond equivalent yield is double the simple interest, semiannual yield. Since Treasury and agency notes and bonds pay interest semiannually, the bond equivalent yield is a way to compare yields from discount securities, such as Treasury bills and bankers' acceptances with yields available from coupon securities. From that usage, this yield measure is also known as the coupon yield equivalent. For securities that pay daily, monthly or quarterly interest, the bond equivalent yield understates the benefits obtained from the compounding of those investments.

Book-entry clearance. A system for the transfer of ownership of securities through entries on the records of a centralized agency. The centralized agency holds securities on behalf of their owners; when the securities are sold, ownership is transferred by bookkeeping entry from the seller to the purchaser. In the case of U.S government securities, securities certificates are not issued, and ownership of the securities is evidenced in computer records maintained by the Federal Reserve System. For other types of securities, book entry clearance is made available through linked or interfaced systems maintained by four securities depositories, which hold securities and act on behalf of their participants.

Book-entry security. A security which is not available to purchasers in physical form. Such a security may be held either as a computer entry on the records of a central holder (as is the case with U.S. certain government securities) or in the form of a single, global certificate.

Book value. The value at which a security is carried on the inventory lists or other financial records of an investor. This value may be the original cost of acquisition of the security, or original cost adjusted by the amortization of a premium or accretion of a discount. The book value may differ significantly from the security's current value in the market.

Broker. A broker brings buyers and sellers together for a commission paid by the initiator of the transaction or by both sides; he does not position or take ownership of the security.

Certificate of Deposit (CD). A deposit of funds, in a bank or savings and loan association, for a specified term that earns interest at a specified rate or rate formula.

Collateralization. Process by which a borrower pledges securities, property or other deposits for the purpose of securing the repayment of a loan and/or security.

Commercial Paper. Unsecured short-term promissory notes issued by corporations, with maturities ranging from 2 to 270 days. May be sold on a discount basis or may bear interest. Firms with lower ratings or without well known names usually back their commercial paper with guarantees or bank letters of credit.

Coupon rate. Interest rate, expressed as a percentage of par or face value, that issuer promises to pay over lifetime of debt security.

Credit Risk. The risk to an investor that an issuer will default in the payment of interest and/or principal on a security.

Current Yield (Current Return). A measure of the simple interest annual yield for interest-bearing investments with maturities of one year or more. To calculate the current yield, the annual coupon interest income is divided by the amount paid to acquire the investment. It is important to note that the current yield is only accurate for investments purchased at par. The current yield calculation includes just one income cash flow - the annual interest income. It ignores the profit or loss resulting from discounts and premiums.

Custody. The service of an organization, usually a financial institution, of holding (and reporting) a customer's securities for safekeeping. The financial institution is known as the **custodian**.

Dealer. An individual or firm who, as a matter of regular business, purchases or sells securities for his account and risk.

Delivery versus payment (DVP). A settlement procedure where payment for a securities purchase is made simultaneously with the transfer of the purchased securities. The same procedure applies for a securities sale; the securities are transferred as payment is made.

Derivative instrument. A security that derives its value from an underlying asset, group of assets, reference rate, or an index value. Some derivative instruments can be highly volatile and result in a loss of principal in changing interest rate environments.

Discount. The amount by which a bond sells under its par (face) value.

Discount securities. Securities that do not pay periodic interest. Investors earn the difference between the discount issue price and the full face value paid at maturity. Treasury bills, bankers' acceptances and most commercial paper are issued at a discount.

Diversification. Dividing investment funds among a variety of securities, offering independent returns, to reduce risk inherent in particular securities.

Effective Annual Yield. A seldom used expression to refer to the yield on an investment expressed on a compound interest basis.

Fed Wire. Computerized network linking the Fed with its district banks, member banks, and primary dealers in government securities.

Federal Agency Securities. A variety of securities issued by several Federally sponsored agencies. Some are issued on a discount basis and some are issued with coupons. Several have the full faith and credit guarantee of the U.S. government, although others do not.

Federal Deposit Insurance Corporation (FDIC). A federal agency that insures bank deposits, currently up to \$250,000 per deposit.

Federal funds (Fed Funds). Funds placed in Federal Reserve banks by depository institutions in excess of current reserve requirements. These depository institutions may lend fed funds to each other overnight or on a longer basis. They may also transfer funds among each other on a same-day basis through the Federal Reserve banking system. Fed funds are considered to be immediately available funds.

Fed Funds Rate - Interest rate charged by one institution lending federal funds to another.

Floater. A floating rate security with an interest rate that resets at specified intervals according to an underlying index, such as LIBOR (the London Interbank Offered Rate), and is based on a predetermined formula. The value of a floater will fluctuate as interest rates change and therefore can be very volatile.

Inactive deposits. Funds not immediately needed for disbursement.

Interest rate risk. The risk associated with declines or rises in interest rates which cause an investment in a fixed-income security to increase or decrease in value.

Inverse floater. A security that reacts inversely to the direction of interest rates. These securities

can be very volatile and can lose value in a rising interest-rate environment.

Leverage. An attempt to increase the rate of return on an investment by buying securities on margin or using borrowed funds for investment purposes. This practice can be risky if interest rates rise or if investment yields are lower than expected.

Liquidity. The quality of an asset that permits it to be converted quickly into cash without a significant loss of value.

Local Agency Investment Fund (LAIF). A special fund in the State Treasury which local agencies may use to deposit funds for investment and for reinvestment. There is no minimum investment period and the minimum transaction is \$5,000, in multiples of \$1,000 above that, with a maximum of \$75 million for any agency (*excluding bond funds, which have no maximum*). It offers high liquidity because deposits can be converted to cash in 24 hours and no interest is lost. All interest is distributed to those agencies participating on a proportionate share determined by the amounts deposited and the length of time they are deposited. Interest is paid quarterly via a check, warrant, or direct deposit to the agency's State Pooled Fund account. The State keeps an amount for reasonable costs of making the investments, not to exceed 1/4 of a percent of the earnings.

Marketability. The measure of ease with which a security can be sold in the secondary market.

Mark-to-Market. The practice of valuing a security of portfolio according to its market value, rather than its cost or book value.

Market Rate of Return. The average yield of the 3-month U.S. Treasury Bill or other index that closely matches the average maturity of the portfolio.

Market Value. The price at which the security is trading and could presumably be purchased or sold.

Maturity Date. The specified day on which the issuer of a debt security is obligated to repay the principal amount, or face value of, a security.

Money Market Mutual Fund. Mutual funds that invest solely in money market instruments (short-term debt instruments, such as Treasury bills, commercial paper, bankers' acceptances, repos and federal funds).

Mutual Fund. An investment company that pools money and can invest in a variety of securities, including fixed-income securities and money market instruments. Mutual funds are regulated by the Investment Company Act of 1940 and must abide by the following Securities and Exchange Commission (SEC) disclosure guidelines.

Negotiable. Salable.

Par. Face value or principal value of a bond, typically \$1,000 per bond.

Passive investment management. An investment strategy where securities are bought with the intention of holding them to maturity or investments in benchmark products designed to yield a market rate of return.

Principal. The face amount or par value of a debt instrument.

Primary Dealer. A small group of large banks and brokers that have pledged to make a market for any Treasury securities at any time. They are required to report their inventory positions and volume of activities to the Federal Reserve. Because of this, they are given the right to deal directly with the Federal Reserve in their daily operations.

Prudent Investor Standard. A standard of conduct where a person acts with care, skill, prudence, and diligence when investing, reinvesting, purchasing, acquiring, exchanging, selling and managing funds. The test of whether the standard is being met is if a prudent person acting in a similar situation would engage in similar conduct to ensure that investments safeguard principal and maintain liquidity.

Rate of return. The amount of income received from an investment, expressed as a percentage. A *market rate of return* is the yield that an investor can expect to receive in the current interest-rate environment utilizing a buy-and-hold to maturity investment strategy.

Public Securities Association. The bond market trade association, which publishes a Master Repurchase Agreement that is widely accepted as the industry standard.

Rating. Judgment of creditworthiness of an issuer made by an accepted rating service.

Repurchase Agreement (Repo). A form of secured, short-term borrowing in which a security is sold with a simultaneous agreement to buy it back from the purchaser at a future date. A *master repurchase agreement* is a written contract governing all future transactions between the parties and seeks to establish each party's rights in the transaction.

Reverse Repurchase Agreement. A form of secured, short-term investment in which a security is purchased with a simultaneous agreement to sell it back to the seller at a future date.

Safekeeping. A procedure where securities are held by a third party acting as custodian for a fee.

Secondary Market. Markets for the purchase and sale of any previously issued financial instrument. The first sale of a financial instrument by the original issuer is said to be done a primary market. All subsequent trades are said to be secondary market.

Securities Investors Protection Corporation (SIPC). A private corporation providing insurance to brokerage firms to cover customer accounts up to \$500,000 in securities which includes a \$250,000 for cash.

Swap. The trading of one asset, or cash flows, for another. Sometimes used in active portfolio

management to increase investment returns by “swapping” one type of security for another. Also used to manage risk; for example, swapping fixed interest rate payments for floating rate payments.

Total return. Interest income paid on the invested principal, plus interest income earned from the successive reinvestment of that interest income, plus projected capital gains (or minus losses) on the investment. Differs from yield to maturity because (1) it can include gains or losses from sales prior to maturity, and (2) it permits the assumption of a reinvestment rate different from the yield earned on the underlying principal.

Treasury Bills. Short-term U.S. government non-interest bearing debt securities with maturities of no longer than one year. The yields on these bills are monitored closely in the money markets for signs of interest rate trends.

Treasury Notes. Intermediate U.S. government debt securities with maturities of one to 10 years.

Treasury Bonds. Long-term U.S. government debt securities with maturities of ten years or longer.

Uniform Net Capital Rule. Securities and Exchange Commission 15C3-1 outlining capital requirements for brokers.

Weighted Average Maturity (WAM). The average maturity of all the securities that comprise a portfolio.

Yield. Loosely refers to the annual return on an investment expressed as a percentage on an annual basis. For interest-bearing securities, the yield is a function of the rate, the purchase price, the income that can be earned from the reinvestment of income received prior to maturity, call or sale and the time from purchase to maturity, call or sale. Different formulas or methods are used to calculate yield. See Yield to Maturity and Total Return Analysis.

Yield-to-maturity. The rate of return yielded by a debt security held to maturity when both the interest payments and the investor’s potential capital gain or loss are included in the calculation of the return.



Orange County Fire Authority
AGENDA STAFF REPORT

Board of Directors Meeting
November 16, 2023

Agenda Item No. 2F
Consent Calendar

Amendments to the Personnel & Salary Resolution

Contact(s) for Further Information

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Summary

This agenda item is submitted to make amendments to the Personnel & Salary Resolution Part 3, Article 1, Section 6(B) – Range Adjustment, to reflect a change in the salary range for the classification of Director of Communications.

Prior Board/Committee Action

On November 7, 2023, the Human Resources Committee reviewed the proposed agenda item and directed staff to place the item on the Board of Directors agenda by a vote of 6-0 (Director Chun absent).

RECOMMENDED ACTION(S)

Approve the amendments to the Personnel & Salary Resolution, Resolution Part 3, Article 1, Section 6(B) – Range Adjustment, to reflect a change in the salary range for the classification of Director of Communications.

Impact to Cities/County

Not applicable.

Fiscal Impact

The estimated fiscal impact of \$11,021 in current FY 2023/24 is anticipated to be fully covered by salary savings from vacant positions.

Increased Cost Funded by Structural Fire Fund: \$0

Increased Cost Funded by Cash Contract Cities: \$0

Background

The Personnel & Salary Resolution, Part 3, Article 1, Section 6 defines how the salary ranges are established for the Executive Management unit. The changes are being proposed to amend the salary range for the position of Director of Communications for internal equity, recruitment and retention. In addition, a portion of the amendment is to remove an obsolete reference to the Human Resources Director since prior action taken by the Board reclassified the position of Human Resources Director to Assistant Chief.

Human Resources Director

At the regular meeting of the Board of Directors on April 25, 2019, the Board of Directors took action to establish the single classification of Assistant Chief, thereby consolidating the classifications of Assistant Chief of Business Services, Fire Marshal, Operations, Support Services, and Human Resources Director into one classification. The Personnel and Salary Resolution was not updated at that time to reflect this action. The proposed change removes the obsolete reference to the Human Resources Director from the provisions of Section 6(B) as it is currently covered under the provisions of Section 6(A).

Director of Communications

As a member of the Executive Management Team, the classification of Director of Communications is responsible for creating and executing strategic public relations and communications programs for the Fire Chief, Executive Leadership, and the OCFA Board of Directors. The position establishes public relations standards, goals, priorities, operational plans, policies and procedures. The position creates and maintains relations with news media through news releases, press conferences, briefings, interviews, media appearances, correspondence and reports. Lastly, the Director of Communications serve at the pleasure of the Fire Chief and is hired as an At-Will employee.

Currently, the Personnel and Salary Resolution provides that the salary range for the Director of Communications is based on the maximum attainable salary within the Orange County Fire Authority Managers Association (OCFAMA) bargaining unit. This has caused internal inequity between the Director of Communications and the Assistant Chief rank as the salary range for Director of Communications does not move in tandem with the other Executive Management members. The proposed change is intended to correct for internal equity with the rank of Assistant Chief and better reflect the complexity of work, scope of responsibility, and leadership role of this position. Furthermore, the proposed change would ensure that future amendments to the salary range align with an appropriate spread to the Assistant Chief rank.

DIRECTOR OF COMMUNICATIONS CURRENT LEVELS/HOURLY RATE			
Code	Classification	Min Hourly Rate	Max Hourly Rate
1100	Director of Communications	\$50.23	\$97.51

DIRECTOR OF COMMUNICATIONS PROPOSED LEVELS/HOURLY RATE			
Code	Classification	Min Hourly Rate	Max Hourly Rate
1100	Director of Communications	\$94.66	\$102.34

The proposed change reflects a 4.95% percent increase above the current maximum of the range. Movement within the range for an incumbent shall be based on job performance in line with the Annual Merit Review Program.

Staff is requesting the Board to adopt this amendment to the language Part 3, Article I, Section 6(B) as proposed.

Attachment(s)

Proposed Personnel & Salary Resolution

PERSONNEL AND SALARY RESOLUTION

ORANGE COUNTY FIRE AUTHORITY

Revisions Approved by the Board of Directors ~~May 23, 2019~~,
TBD

Effective ~~August 1, 2019~~TBD
(Amendments to Part 3, Section 6(B)8-
~~and to Appendix B Only~~)

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DEFINITIONS

The following terms as used in this Personnel and Salary Resolution shall, unless the context clearly indicates otherwise, have the respective meanings herein set forth:

ADMINISTRATIVE MANAGEMENT shall mean positions designated under Administrative Management as specified in Appendix B.

ASSISTANT CHIEF shall mean the Executive Management employee responsible for Business Services, Community Risk Reduction, Operations, Organizational Planning, or Support Services.

AUTHORITY shall mean the Orange County Fire Authority (OCFA). The Authority is a joint powers agency that was created to discharge the functions of the Orange County Fire Department and which, effective March 1, 1995, became the successor organization to the Orange County Fire Department.

BOARD shall mean Board of Directors of the Authority.

BOARD OF RETIREMENT shall mean the Board of Retirement of the Orange County Employees Retirement System (OCERS).

COMPENSATION EARNABLE shall mean the employee's hourly rate of pay and any other compensation the employee receives that is used by the Orange County Employees Retirement System in calculating the employee's Average Monthly Compensation.

CONTINUOUS SERVICE shall mean employment in a regular position that has not been interrupted by resignation, discharge, or retirement. Official Leaves of Absence shall not constitute a break in continuous service. For employees who transitioned directly from the County of Orange to Authority employment prior to September 1, 1995, continuous service shall include prior continuous service with the County of Orange.

COUNTY shall mean the County of Orange and special districts governed by the Board of Supervisors.

DEPARTMENT shall mean a Department within the Authority such as Business Services, Community Risk Reduction, Operations, Organizational Planning, and Support Services.

DEPARTMENT HEAD shall mean an executive manager of the Authority who is responsible for a Department within the Authority including Assistant Chief of Operations, Assistant Chief of Business Services, Assistant Chief of Community Risk Reduction, Assistant Chief of Organizational Planning, and Assistant Chief of Support Services.

ELIGIBLE FORMER EMPLOYEE means an Employee who meets the coverage and participation requirements set forth in Sections 3.2.1 and 3.2.2 of the Retiree Medical Plan at the time of his/her termination of employment with the Authority.

ELIGIBLE RETIREE means a retiree who is receiving a monthly retirement allowance from the Orange County employees Retirement System (OCERS), who meets the coverage and participation requirements set forth in Section 3.1 and 3.2 of the Retiree Medical Plan and whose coverage has not been terminated under Section 3.3 of the Retiree Medical Plan.

EMERGENCY shall mean an unforeseen circumstance requiring immediate action, a sudden unexpected happening, an unforeseen occurrence or condition, a pressing necessity.

EMPLOYEE shall mean a person employed by the Authority and covered by the terms of this Personnel and Salary Resolution, except where the natural construction of this Resolution otherwise indicates, and except elected officers and Volunteer Reserve Firefighters.

EXECUTIVE MANAGEMENT shall mean an employee employed in one (1) of the classes as listed in Appendix A.

EXTRA HELP EMPLOYEE shall mean an employee employed in an extra help position. An extra help employee serves at the pleasure of the Authority in an extra help position and may be removed from an extra help position at any time with or without notice or cause and without a hearing.

EXTRA HELP POSITION shall mean a position that is intended to be occupied on less than a year-round basis, including, but not limited to, the following: to cover seasonal peak workloads; emergency extra workloads of limited duration; necessary vacation relief, paid sick leave, and other situations involving a fluctuating staff. Ordinarily, a full-time extra help position shall not be authorized for a period exceeding six (6) months. In unusual circumstances, and at the discretion of the Fire Chief and the Human Resources Director, a full-time extra help position may be authorized for a period longer than six (6) months, provided such period shall not exceed one (1) year.

FIRE CHIEF shall mean the person who is the principal officer or employee of the Authority or his/her designee.

FIRE MANAGEMENT shall mean employees covered under the Fire Management Unit as referred to in the Memorandum of Understanding between the Orange County Fire Authority and the Orange County Fire Authority Chief Officers Association.

FISCAL YEAR shall mean a period from July 1 through June 30.

FULL-TIME EMPLOYEE shall mean an employee employed in a regular or limited-term position whose normally assigned work hours equal those of a full workweek or work period as described hereinafter.

GENERAL UNIT shall mean employees covered under the General Unit as referred to in the Memorandum of Understanding between the Orange County Fire Authority and Orange County Employees Association.

HUMAN RESOURCES DIRECTOR shall mean the Human Resources Director or his/her designee.

LIGHT DUTY ASSIGNMENT shall mean temporary modified (light duty) assignment as defined in SOP AM 103.01B.

LIMITED-TERM EMPLOYEE shall mean an employee employed in a limited-term position, except where a regular position is converted to a limited-term position, in which case, the incumbent shall retain his/her former status. As an exception to this definition, a limited-term employee may also be used to fill a regular position when the incumbent employee is on Official Leave of Absence.

LIMITED-TERM POSITION shall mean a position that the Authority has determined has no anticipated long-range funding or has uncertain future funding.

OCFA shall mean the Orange County Fire Authority.

PART-TIME EMPLOYEE shall mean an employee employed in a regular or limited-term position whose normally assigned work hours do not equal those required of a full-time employee.

PRACTICABLE shall mean economically or operationally feasible or reasonably able to accomplish.

PROBATIONARY EMPLOYEE shall mean a person who is serving a probation period and is employed in a regular or limited-term position.

PROMOTION shall mean the movement of a regular, limited-term, or probationary employee from one (1) class to another class where the maximum rate on the new salary range is at least two and seventy-five hundredths (2.75) percent higher than the maximum rate of the old salary range.

PROVISIONAL APPOINTMENT shall mean an appointment of a qualified person who is not a regular, probationary, or limited-term employee of the Authority to a regular or limited-term position on a temporary basis.

PROVISIONAL EMPLOYEE shall mean an employee who occupies a regular or limited-term position as the result of a provisional appointment.

RATING YEAR shall mean that time period considered in the preparation of annual performance evaluations under the Annual Merit Review Program.

REASSIGNMENT shall mean the movement of a regular, limited-term, or probationary employee from one (1) class to another class on the same salary range or to a class where the maximum rate on the new salary range is less than two and seventy-five hundredths (2.75) percent higher or lower than the maximum rate of the old salary range.

RECRUITING RATE shall be the minimum rate of the salary range allocated to a class, unless otherwise authorized by the Board or the Human Resources Director.

REDUCTION shall mean the movement of a regular, limited-term, or probationary employee from one (1) class to another class where the maximum rate of the new salary range is at least two and seventy-five hundredths (2.75) percent lower than the maximum rate of the old salary range.

REEMPLOYED EMPLOYEE shall mean an employee who is reemployed by the Authority in accordance with the eligibility requirements identified in the OCFA Selection Rules and Appeals Procedure.

REGULAR EMPLOYEE shall mean a person who is not on probation and is employed in a regular or limited-term position.

REGULAR POSITION shall mean a position established on a permanent year-round basis requiring work on a regular schedule, unless otherwise authorized by minute order of the Board.

REINSTATED EMPLOYEE shall mean an employee who is reinstated by the Authority in

accordance with the LAYOFF PROCEDURE.

SENIORITY shall mean total continuous full-time equivalent service as a regular employee, unless the context herein indicates otherwise.

SERVICE for the purpose of determining benefits under the Retiree Medical Insurance Grant shall mean service for the Authority, and shall include service for the County of Orange, if the employee/retiree transitioned directly from County employment to Authority employment no later than September 1, 1995, and has been continuously employed by the Authority until retirement. When the word SERVICE is printed in all uppercase letters, it refers to this definition.

SOP shall mean Standard Operating Procedure.

SUPERVISORY MANAGEMENT UNIT shall mean employees covered under the Supervisory Management Unit as referred to in the Memorandum of Understanding between the Orange County Fire Authority and the Orange County Employees Association.

SUPPORTED EMPLOYMENT UNIT shall mean employees who have been referred to the Authority by Goodwill Industries and accepted by the Authority as program participants.

Y-RATE shall mean a pay rate outside of the assigned salary range of a class.

PART 1
ARTICLE I

GENERAL PERSONNEL PROVISIONS

Section 1. Regulation of Employees

- A. There is hereby adopted a merit system for the personnel administration of this Authority basing appointments, promotions, reductions, and discharges specifically on merit for all employees, except for extra help employees, Senior Executive Assistant to the Fire Chief, and appointments and promotions to Executive Management positions.
- B. All employees shall hold their positions subject to rules and regulations established by Resolution of the Board.

Section 2. Conflict of Interest

- A. Authority employees shall refrain from engaging in any activities that constitute a conflict of interest due to the nature, conditions, or some other aspect of the activity. It shall be the responsibility of the Fire Chief to ensure that employees in the Authority refrain from engaging in any activities that constitute a conflict of interest. The following are examples of activities that may involve a conflict of interest:
 - 1. The use of Authority time, facilities, equipment, badge, or uniform for private gain or advantage, or private gain or advantage of another.
 - 2. The use of prestige or influence of Authority employment for private gain or advantage, or the private gain or advantage of another.
 - 3. The use of confidential information acquired by virtue of Authority employment for the employee's private gain or advantage, or private gain or advantage of another.
 - 4. The acceptance of money or other consideration by an employee from any person, except the Authority for the performance of an act that the employee would be required or expected to render in the regular course or hours of his/her Authority employment, or as a part of his/her duties as an Authority employee.
 - 5. The performance of an act in other than his/her capacity as an Authority employee knowing that such act may later be subject directly or indirectly to the control, inspection, review, audit, or enforcement by the employee or the Authority.
 - 6. The representation of or assisting in the representation of private interests for profit before any board or committee of the Authority or in court when the Authority is a party.
 - 7. The solicitation of future employment with a business doing business with the Authority over which the employee has some control or influence in his/her official capacity at the time of transaction.

Section 3. Employment of Relatives

A. Purpose

1. To provide guidelines for employment of close relatives as situations involving relatives working in the Authority may result in morale problems, inappropriate supervision, conflict of interest, or public criticism. The intent is to avoid the opportunity for an officer or employee of the Authority to use personal influence to aid or hinder another in the employment setting or situation because of a personal relationship.

B. Policy

1. General: No person may be appointed, promoted, reduced, transferred, or reassigned to a position in which that person is in the direct line of supervision of a close relative; nor shall close relatives have the same immediate supervisor. "Supervision" includes the assignment of work, evaluation of performance, and setting or influencing the pay or granting of benefits to the other.
2. Definition: A close relative shall be defined as an individual related by blood, adoption, or marriage, e.g., spouse, parent, child, sibling, grandparent, grandchild, uncle, aunt, first cousin, nephew, niece, mother/father in-law, son/daughter in-law, sister/brother in-law, step-parent, step-child, step-brother/sister or half-brother/sister.
3. Disclosure: All applicants for employment, promotion, reduction, transfer, or reassignment to a position in the Authority shall be required to disclose the name(s) and position title(s) of any close relative currently employed in the Authority prior to appointment, promotion, reduction, transfer, or reassignment. An employee who becomes a "close relative" by marriage subsequent to appointment shall disclose the new relationship(s) to his/her supervisor.
4. The Human Resources Director shall provide appropriate forms and procedures for the disclosure process.
5. Exemptions: The Fire Chief may grant exemptions required for the effective and efficient operation of the Authority. The Fire Chief shall develop appropriate procedures to ensure the objective review of requests for exemption.

C. Procedure for Exemption From Policy

1. The hiring supervisor shall request authority for an exemption from policy from the Fire Chief prior to appointing, promoting, reducing, transferring, or reassigning a close relative of an employee, if such action shall result in a violation of policy above.
2. The written request for exemption from policy shall include:
 - a) Names of prospective employee and known close relative employee(s) and relationship(s).
 - b) Titles and summary of duties, and work relationship of affected positions.

- c) Qualifications of applicant indicating why the selected applicant is the best qualified or better qualified than other candidates.
 - d) Justification for exemption, indicating why it is necessary for the effective and efficient operation of the Authority and including a statement of why supervisor believes problems shall not result.
3. The Fire Chief shall approve or disapprove supervisor's recommendation and notify the Human Resources Director of specific reasons for decision. Upon request, the Human Resources Director shall review and provide comments to the Fire Chief. The Human Resources Director shall maintain a listing of exemptions granted after the effective date of this policy.
 4. When an exemption is granted for a close relative of the Fire Chief, the Board shall be promptly notified.

Section 4. Drug and Alcohol Policy

A. Purpose

It is the purpose of this policy to articulate the position of the Authority Board with respect to the use of drugs or alcohol by Authority employees while on Authority time, in Authority vehicles, on Authority property, or in Authority facilities.

B. Policy

In recognition of the duties entrusted to the employees of the Authority and with knowledge that drugs and alcohol do hinder a person's ability to perform duties safely and effectively, the Board adopts the following policy:

1. It is the policy of the Authority to maintain a safe, healthful, lawful, and productive workplace. Members of the Board are committed to discouraging alcohol and drug abuse and to achieving a workforce free from the influence of drugs and alcohol.
2. It is the intent of this policy to deter the misuse or abuse of legal or illegal substances that create a threat to the safety and health of any Authority employee or member of the public. The Authority is concerned with those situations where the use of alcohol and drugs interferes with any employee's safety and job performance, adversely affects the job performance or safety of other employees, or affects the safety of the public.
3. The Authority has established a voluntary Employee Assistance Program to assist all Authority employees who wish to seek help for alcohol and drug problems. The Authority also makes available a variety of insurance coverage that provides treatment for drug and alcohol abuse. Employees may contact their supervisors, insurance provider, or the Employee Assistance Program for additional information.
4. The use, possession or sale of illegal drugs is unlawful, dangerous, and prohibited. The use of alcohol in the workplace, or prior to coming to the workplace so that the employee's performance is impaired is dangerous to the employee, to other employees, and the general public and is prohibited. The abuse of all drugs, including alcohol by employees is unacceptable since it can adversely affect health and safety, security and productivity, as well

as public confidence and trust.

5. Violation of this policy may be grounds for disciplinary action up to and including discharge from Authority service. The Authority may develop additional policies or work rules to augment the above policy statement.
6. Employees who experience drug or alcohol problems are encouraged to seek referral for rehabilitation through the Employee Assistance Program (EAP) or their insurance provider. It is the responsibility of each employee to seek assistance before alcohol or drug problems lead to performance problems. Once a violation of this policy occurs, subsequent use of the Employee Assistance Program or other programs on a voluntary basis shall not necessarily lessen disciplinary action.

Section 5. Position Classification Plan

- A. The Position Classification Plan of the Authority shall consist of the class titles and the class specifications adopted by the Board. There shall be a class specification for each class (unless exempted by the Board) that includes the title of the class and indicates the type of work performed and the minimum qualifications for employment. Class specifications shall be established by the Board of Directors and maintained current by the Human Resources Director in the following areas: 1) legal requirements for licensure, 2) Fair Labor Standards Act (FLSA) mandates, and 3) organizational changes to reporting relationships.
- B. The Human Resources Director shall administer the Position Classification Plan for all positions in the Authority service, except those designated by the Board as being exempted. The Human Resources Director shall make recommendations to the Board as to the establishment of classes. The Human Resources Director shall establish procedures to administer the Position Classification Plan.
- C. The Human Resources Director is authorized to conduct studies of the duties and responsibilities of the various positions in order to maintain the Position Classification Plan.

Section 6. Number and Classification of Activated Positions

- A. The number of activated regular positions shall be as designated by the Board. The Fire Chief shall not appoint regular or probationary employees in excess of the positions activated by the Board, except that the Fire Chief, with notification to the Human Resources Director, may fill a regular position with a replacement up to twenty-eight (28) calendar days in advance of the separation of a terminating employee.
- B. The Human Resources Director is authorized to reclassify positions when such reclassifications are consistent with classification concepts, classification specifications, and salaries adopted by the Board, and the Fire Chief agrees with the classification change.
- C. The Human Resources Director may authorize that a regular position be used as one (1) or more part-time regular positions, provided that the total regularly scheduled hours of the part-time positions do not exceed the number of hours per

week authorized for the activated regular position.

- D. The Fire Chief may appoint limited-term or extra help employees subject to a determination by the Human Resources Director as to the appropriate classification of the positions. Ordinarily, a full-time extra help position shall not be authorized for a period exceeding six (6) months. In unusual circumstances, and at the discretion of the Fire Chief and the Human Resources Director, a full-time extra help position may be authorized for a period longer than six (6) months, provided such period shall not exceed one (1) year.
- E. When a regular or limited-term position is vacant due to Leave of Absence, the position may be filled for the length of the immediately preceding Authority Leave, Official Leave, Leaves for disability reasons, Military Leave, Parenthood Leave, or other loan program and any extensions of such Leaves.
- F. When an employee who is separating from Authority service by way of paid Authority retirement elects to take time off for vacation, the position to be vacated may be filled by the Authority for the length of vacation time off prior to the employee's paid retirement.
- G. When a regular or limited-term employee is on a Leave of Absence with Pay and the cost of the employee's salary and benefits is fully reimbursed to the Authority, the employee's position may be filled by the Authority for the length of the paid Leave.

Section 7. Selection Procedures

- A. Consistent with Section 1.A of this Article, the Human Resources Director shall determine the method of evaluating the qualifications of applicants and employees. The Human Resources Director shall administer the Authority Merit System Selection Rules and Appeals Procedure. Such Rules may be revised by the Human Resources Director, provided that no revision that nullifies the basic principle of a merit system shall be effective, unless approved by the Board.
- B. Consistent with Section 1.A of this Article, the Human Resources Director shall determine the selection methods for the filling of all positions. The Fire Chief shall appoint and promote only from among those persons who are certified to him/her by the Human Resources Director as being eligible for the particular class, except as provided in the Authority's Merit System Selection Rules and Appeals Procedure. An appropriate form shall be signed by the Fire Chief or his/her designee and approved by the Human Resources Director before salary payment shall be made to any employee.
- C. When the Authority assumes or absorbs the functions and personnel of another government agency, the Human Resources Director may waive or modify the regularly established minimum qualifications and selection procedures for the employees involved.

Section 8. Performance Evaluations

- A. The Human Resources Director is authorized to establish a performance evaluation program for the Authority.

Section 9. Administrative Leave

- A. The Human Resources Director may authorize an employee to be absent with pay from his/her regular work area for reasons other than physical or mental illness for a period of time not to exceed one hundred twenty (120) regularly scheduled working hours, if the Fire Chief finds that such absence:
 - 1. Contributes to the employee's effectiveness in his/her assigned duties and responsibilities; or
 - 2. Contributes to the functions and goals of the Authority.
- B. An employee may be absent with pay from his/her regular work area in excess of one hundred twenty (120) regularly scheduled working hours upon the approval of the Human Resources Director and the Fire Chief. Requests for an absence with pay from the regular work area in excess of one hundred twenty (120) regularly scheduled hours shall state specifically the reason for the request and the beginning and ending dates of the absence. For purposes of this Section, regular work area shall mean the geographic area to which the employee is typically and appropriately assigned to work during the usual course of employment.

Section 10. Military Leave of Absence

- A. A request for Military Leave of Absence shall be made upon forms prescribed by the Human Resources Director and shall state specifically the reason for the request, the date when it is desired to begin the Leave of Absence, and the probable date of return. Military Leave is governed by provisions of the Military and Veterans Code of the State of California. An employee receiving pay for a portion of such Leave shall not be deemed to be occupying a position during such paid Leave period. When a regular position is vacant due to a Military Leave of Absence, the position may be filled for the length of that Leave.

Section 11. Time Off for Voting

- A. If an employee does not have sufficient time outside of working hours to vote at a State-wide election, the employee may, without loss of pay, take off enough working time that when added to the voting time available outside of working hours shall enable the employee to vote.
- B. No more than two (2) hours of the time taken off for voting shall be without loss of pay. The time off for voting shall be only at the beginning or end of the regular working shift/day, whichever allows the most free time for voting and the least time off from the regular working shift/day, unless otherwise mutually agreed.

- C. If the employee on the third working day prior to the day of election, knows or has reason to believe that time off shall be necessary to be able to vote on election day, the employee shall give his/her supervisor at least two (2) working days' notice that time off for voting is desired in accordance with the provisions of this Section.

Section 12. Provisional Appointment

- A. A provisional appointment shall not extend beyond the time needed to establish an eligible list and permit a regular appointment to be made. A provisional appointment shall not be continued for more than six (6) months from date of appointment, unless an extension of no more than one (1) year from the original date of the provisional appointment is approved by the Human Resources Director.
- B. A probationary, regular, or limited-term employee shall not be eligible for a provisional appointment.
- C. A provisional employee shall not serve a probationary period. If a provisional employee receives a regular appointment, the employee shall serve a new probationary period. A provisional employee who receives a regular appointment shall maintain his/her original hire date for purposes of vacation and sick leave accrual, retirement, and layoff.
- D. A provisional employee may be released from service at any time without right of appeal or hearing.
- E. Provisional employees shall earn all other benefits that accrue to regular employees, except for rights and benefits pursuant to the Layoff Procedure provided for in the applicable Memoranda of Understanding or Personnel and Salary Resolution.

ARTICLE II

PAY PRACTICES

Section 1. Method of Compensation for Employees

- A. Employees shall receive compensation at the biweekly or hourly rate within the range or at the flat rate assigned to the class in which they are employed.
- B. The Human Resources Director is authorized to create a table of class titles, pay rates, and salary schedules consistent with actions taken by the Board authorizing such titles and rates of pay. The Human Resources Director may also change such tables, rates, and schedules in accordance with the provisions of the various Memoranda of Understanding or by subsequent action of the Board.

Section 2. Salary Payment Procedure

- A. A pay period shall cover fourteen (14) calendar days and shall start on a Friday and end with the second Thursday thereafter. Employees and officers shall be paid approximately eight (8) days after the end of a pay period, usually on a Friday.
- B. Compensation for each employee for whom compensation is established shall be paid out of the Authority General Fund or such other fund as may be provided by ordinance or by law upon certification by the Fire Chief that such employee has performed the services set forth in said certificate. When an employee separates from the Authority service and use of the regularly scheduled certification would create an inequitable delay, the Fire Chief may immediately file a special payroll certification of such separation. A warrant may be drafted for the period of time and/or pay due said employee up to the time of separation. Notice of such separation shall be immediately filed with the Human Resources Director.
- C. As a condition of receipt of his/her salary warrant, the Fire Chief shall file a written certificate to the effect that each of his/her employees during said pay period has performed services for the Authority as required by law. If there is any exception, the Fire Chief shall so state in the certificate. The Authority shall retain a copy.

Section 3. Authorization for Salary Increases

- A. The Human Resources Director shall provide written notification to the Finance Manager of all salary increases and such notifications shall constitute authorization for payments to the employee at the higher rate.

Section 4. Compensation for Authority Employees When Performing as Volunteer Reserve Firefighters

- A. Employees who, in addition to being employed in another job class, also volunteer as Volunteer Reserve Firefighters shall be excluded from eligibility for overtime compensation during such time when they volunteer as Volunteer Reserve Firefighters.

Section 5. Limitations upon Compensation

- A. Unless otherwise provided by Resolution, all fees, commissions, mileage (other than mileage reimbursement received pursuant to the Authority's mileage reimbursement provisions), and compensation of whatever nature or character received by an employee by virtue of his/her office shall be deposited with the Authority for each calendar month not later than the fifth of the succeeding month and be deposited into the General Fund of the Authority, or such other fund as may be provided by law, and shall become the property of the Authority immediately upon its receipt by such employee. The provisions of Section 70 of the Penal Code relative to the asking or receiving of gratuities are hereby made a part of the regulations governing employees.

Section 6. Authority to Resolve Employee Complaints/Grievances

- A. The Human Resources Director may authorize payments in settlement of employee complaints or grievances where:
1. Resolution of the complaint advances effective employer-employee relations; and
 2. The cost of potential arbitration or litigation exceeds the amount in controversy; and
 3. The amount of such settlement does not exceed ten thousand (10,000) dollars in any one (1) case.

ARTICLE III

TUITION REIMBURSEMENT

Section 1. Objective

- A. The tuition reimbursement program is designed to encourage employees to continue their self-development by enrolling in classroom courses that will:
1. Educate them in new concepts and methods in their occupational fields and prepare them to meet the changing demands of their jobs; or
 2. Help prepare them for advancement to positions of greater responsibility in the Authority service.

Section 2. Eligibility of Courses

- A. The following criteria shall be used in determining the eligibility of courses for tuition reimbursement:
1. Courses must be related to the work of the employee's position or occupation.
 2. Courses must have reasonable potential for resulting in savings or in more efficient service.
 3. Courses must be taken on employee time.
 4. Courses must be taken at accredited institutions. Correspondence courses from reputable institutions shall be considered only when equivalent courses are not available at local accredited schools, or when the employee's circumstances prevent attendance at courses offered locally.
 5. The prerequisite courses for eligible courses are also eligible for tuition reimbursement. However, reimbursement shall not be made until the appropriate eligible courses have been satisfactorily completed.
 6. Courses that are neither eligible in themselves, nor prerequisites for eligible courses, but that are required for the completion of a degree in a work-related field are eligible for tuition reimbursement.
 7. Courses are not eligible for tuition reimbursement if they:
 - a) Are taken to bring unsatisfactory performance up to an acceptable level;
 - b) Are taken to acquire skills or knowledge that the employee was deemed to have when appointed;
 - c) Duplicate available in-service training; or
 - d) Duplicate training that the employee has already had.
- B. Conventions, nonacademic workshops, institutes, etc., are not ordinarily included in the tuition reimbursement program because such programs often are given by non-accredited institutions, involve Authority time, considerable travel expense, and are not easily comparable to any other programs. Therefore, the Transportation

and Travel-Meetings and Conferences account code shall be used for such programs and requests shall be made in the usual manner. However, with the approval of the Human Resources Director, exceptions may be made for individual requests if: 1) an employee can only receive a specialized course from a nontraditional institution, and 2) the program meets the other criteria previously outlined.

Section 3. Eligibility of Employees

- A. Full-time (regular, limited-term, and probationary) employees performing their jobs satisfactorily are eligible for reimbursement.

Section 4. Nature of Reimbursement

- A. Reimbursement may be made for tuition, registration fees, books, and laboratory fees. Expenses for parking, travel, meals, processing fees for admittance to a university or college, and other incidental costs are not reimbursable.
- B. Reimbursement shall be made to the employee upon completion of the course with a minimum final grade of "C" or its equivalent in an undergraduate course, or "B" or its equivalent in a graduate level course. No reimbursement shall be made for audited courses or incomplete courses.
- C. Reimbursement shall be limited as follows:
 - 1. No employee shall be reimbursed for more than two (2) courses in a single semester or quarter.
 - 2. The maximum reimbursement that may be received by an employee from the Authority in one (1) fiscal year shall be as provided in the applicable Memorandum of Understanding for each bargaining unit.
 - 3. No employee shall be reimbursed for expenses totaling less than five (5) dollars for a single course.
 - 4. Reimbursement received from other sources for tuition, registration fees, books, and/or lab fees shall be deducted from the cost of such expenses in determining the amount that the Authority shall pay.

Section 5. Request Procedure

- A. The employee shall apply for tuition reimbursement through normal supervisory channels on forms provided by the Human Resources Director within thirty (30) calendar days after the starting date of the course.
- B. The Human Resources Director or his/her designee shall either approve or deny the application based on the criteria set forth in this policy and in the Tuition Reimbursement Guide.
- C. Upon completion of an approved course, the employee shall submit verification of fees paid, books purchased, and grades achieved for reimbursement in accordance with the Authority's tuition reimbursement process through normal supervisory channels.

ARTICLE IV

PAYOFF PROVISIONS

Section 1. Sick Leave Payoff

- A. If applicable, the amount of the payment for unused sick leave shall be calculated on the basis of the employee's salary at the time of paid Authority retirement or death. Extra help employees are not eligible for sick leave payoff.

Section 2. Vacation Payoff

- A. The amount of the lump sum payment for accrued vacation shall be calculated on the basis of the employee's salary at the time of separation.

ARTICLE V

INSURANCE FOR VOLUNTARY RESERVE FIREFIGHTERS

Section 1. Insurance for Volunteer Reserve Firefighters

- A. The Authority shall provide to Volunteer Reserve Firefighters health and welfare benefits that shall include life, accidental death and dismemberment, vision, and dental benefits. Accidental death and disability income protection benefits shall be provided for enrolled Volunteer Reserve Firefighters.

ARTICLE VI

SUPPORTED EMPLOYMENT PROGRAM

Section 1. Program Intent

- A. As part of its community involvement, the Authority participates in the Supported Employment Program administered by Goodwill Industries. The purpose of this program is to assist developmentally disabled adults in job training and placement. Individuals referred to the Authority by Goodwill Industries and accepted by the Authority as program participants shall be placed in positions specifically created for this program and shall serve in an "At-Will" capacity.

Section 2. Program Participants

- A. Participants in this program shall become employees of the Authority and shall be placed in the classification of Services Aide, which shall be in the Supported Employment Unit exclusively designated for this program. The salary for this classification has been set in accordance with the Authority's salary policy and shall be maintained at the level of one (1) dollar above the State minimum wage requirement.

Section 3. Insurance

- A. Employees in this program are eligible for Medical Health and Dental Insurance. The employee may elect to participate in the OCFA medical health and dental insurance program. If the employee elects to participate, the Authority shall contribute one hundred percent (100%) toward the employee's insurance premium for employee-only coverage.

Section 4. Retirement

- A. Eligibility

Employees in this program are included in the Orange County Employees Retirement System (OCERS) as determined by their date of entry into eligible service.

- B. Employer's Contribution

For employees hired before January 1, 2013 and for employees hired on or after January 1, 2013 who are considered "Legacy Members" of OCERS within the meaning of the Public Employees' Pension Reform Act of 2013 (PEPRA), the Authority shall contribute one hundred percent (100%) of the employee's retirement contribution, exclusive of the six percent (6%) employee reimbursement identified in Section D . 1 . b . Such contribution shall be credited as fifty percent (50%) pursuant to Government Code Section 31581.1 and fifty percent (50%) pursuant to Government Code Section 31581.2.

- C. Final Compensation for Legacy Members of OCERS

“Final Compensation” for Legacy Members of OCERS, in accordance with Government Code Section 31462(a) means the average annual compensation earnable by a member during any three years elected by a member at or before the time he or she files an application for retirement, or, if he or she fails to elect, during the three years immediately preceding his or her retirement. If a member has less than three years of service, his or her final compensation shall be determined by dividing his or her total compensation by the number of months of service credited to him or her and multiplying by 12.

D. Retirement Formulas and Employee Contributions

1. Employees Hired Prior to January 1, 2013 or Employees Hired On or After January 1, 2013 with Reciprocal Retirement Benefits

- a. The Authority will continue the retirement formula of 2.7% at Age 55 as follows:
- b. The employees will continue to pay six percent (6%) of the employee's Compensation Earnable. This deduction shall continue during the employee's employment period with the Authority.

2. Employees Hired On or After January 1, 2013 with No Reciprocal Benefits

- a. The retirement formula will be the 2.5% at age 67 retirement formula per Government Code Section 7522.20(a), utilizing the average three highest years of compensation per Government Code Section 7522.32. Pensionable compensation and other pension related conditions are governed by the provisions of PEPRA and the OCERS Board of Retirement.
- b. Employees shall pay one half the normal cost as defined by PEPRA.

Section 5. Other Benefits

A. Vacation

Employees shall accrue eighty (80) hours of vacation prorated annually based on the number of hours worked. Employees shall not be eligible to apply vacation to absences until completion of one (1) year of service. Vacation may be accrued up to a maximum of two hundred eighty (280) hours.

B. Sick Leave

Employees shall accrue a minimum of three (3) days and up to seventy- two (72) hours of sick leave prorated annually based on the number of hours worked. Employees shall not be eligible to apply sick leave to absences until completion of ninety (90) days of service. There shall be no limit on the maximum of accrued sick leave.

C. Holiday Pay

Holiday pay shall be compensated in the same manner as is applicable to the majority of staff employees.

- D. Individuals in this program may qualify for and may receive assistance from the State and/or Federal government relative to benefits. The Authority may, at its absolute discretion, provide other benefits to individuals employed in these classifications as determined in writing by the Fire Chief.

ARTICLE VII

SEPARABILITY

In the event that any provision of this Personnel and Salary Resolution is declared invalid by any court of competent jurisdiction, such decision shall not invalidate the entire Personnel and Salary Resolution, it being the express understanding of the Board of Directors that all other provisions not declared invalid shall remain in full force and effect.

PART 2 - ADMINISTRATIVE MANAGEMENT

ARTICLE I

EMPLOYMENT PROVISIONS

Section 1. Temporary Promotion

- A. A regular, probationary, or limited-term employee who is assigned on a temporary basis to a higher level vacant (regular or limited-term) position shall be promoted on a temporary basis to that class, provided he/she meets the qualifications of the position, when such employee has been assigned to the higher class for one hundred twenty (120) consecutive regularly scheduled hours of work, and the employee has been performing all of the significant duties and responsibilities of the higher class, unless the employee requests to be reassigned to his/her former class. In such a case, the employee shall be reassigned within five (5) working days.
- B. The Authority may, at its option, waive the one hundred twenty (120) hour requirement when it is necessary to utilize a regular, probationary, or limited-term employee in a higher level vacant (regular or limited-term) position for a period that is expected to be at least one hundred twenty (120) consecutive regularly scheduled hours, but less than one (1) year.
- C. An employee on temporary promotion shall not be placed on promotional probation. Upon return from temporary promotion, an employee shall serve the remainder of any uncompleted probationary period in the employee's former class and shall have the salary status he/she would have achieved if the employee had remained in the lower class throughout the period of his/her service in the higher class.
- D. At the end of the employee's assignment to the higher class, the employee shall have the right to return to his/her former class and department. A temporary promotion shall not exceed a period of one (1) year.

Section 2. Status of Limited-Term Employees

- A. All limited-term employees shall be subject to the same hiring standards and shall earn all benefits, except those contained in the LAYOFF PROCEDURE, that accrue to employees in regular positions.
- B. A regular employee who transfers, promotes, or reduces to a limited-term position on a voluntary basis and not at the direction of the Fire Chief shall become a limited-term regular employee.
- C. Limited-term employees hired under programs that involve special employment standards shall serve a new probation period upon transfer to permanent funded positions. Upon transfer to permanent positions, such employees shall maintain their original hire date for purposes of vacation and sick leave accrual, retirement, and layoff. The requirement that such employees serve a new probation period may be waived with the approval of the Human Resources Director. Limited-term employees not hired under programs that involve special employment standards shall, upon transfer to permanent funded positions, maintain their original hire date

for purposes of vacation and sick leave accrual, retirement, layoff, and new employee probation.

- D. When funding ceases for a limited-term position or when the position is no longer necessary, the limited-term position shall be abolished and the incumbent shall be removed from the payroll, except as provided in Section 2.E of this Article.
- E. Regular employees who transfer, promote, or reduce to limited-term positions at the direction of the Fire Chief shall retain their former status and retain their layoff benefits in their former layoff unit. The Fire Chief shall make such an order in writing prior to the date of transfer, promotion, or reduction.

Section 3. Reemployment of Employees on Disability Retirement

- A. The Authority shall counsel and advise employees retired for physical disability about reemployment opportunities with the Authority.
- B. Employees retired for physical disability who, within two (2) years from date of retirement, or date their disability retirement is discontinued, request and qualify for positions in the Authority service shall be placed on the eligibility list with respect to such positions. They shall be placed on such List in chronological order of retirement, but following the last person on layoff status. They shall remain on such List for a period of two (2) years from date of retirement, or date their disability retirement is discontinued, except that:
 - 1. A person appointed to a regular position in the Authority service shall be removed from the List;
 - 2. A person who, on two (2) separate occasions, rejects, or fails to respond within three (3) workdays to offers of employment in a class for which he/she is qualified, shall be removed from the List;
 - 3. A person, who on three (3) separate occasions, declines referral for interviews in a class for which he/she is qualified, shall be removed from the List.

Section 4. Reemployment of Regular Employee

- A. A regular employee who leaves Authority employment and is reemployed within fifteen (15) calendar days shall be deemed to have been on Authority Leave for such period of time.

ARTICLE II

LAYOFF PROCEDURE

Section 1. General Provisions

- A. This procedure shall not apply to a temporary layoff of less than four (4) consecutive weeks.
- B. Section 6, Reinstatement Lists and Section 7, Status on Reinstatement of this Article shall not apply if the Authority has a written agreement with an employer, public or private, that guarantees the Authority employee an offer of reasonably comparable employment with the new employer who is taking over a function formerly performed by Authority employees, and the new employer does make such an offer in writing to the employee.
- C. This procedure shall not apply to employees who have special or unique knowledge or skills that are of special value in the operation of the Authority business.

Section 2. Order of Layoff

- A. The Authority may abolish a position because of change in duties or organization or shortage of work or funds which, in turn, may require the layoff of one (1) or more employees. When a layoff is implemented, employees in regular positions and those occupying limited-term positions at the direction of the Fire Chief shall be laid off in the following order within a class:
 - 1. Employment Status

Except as provided in Section 1.C of this Article, all new probationary employees and employees on temporary promotion shall be removed from the class.
 - 2. Past Performance

Any employee whose last regularly scheduled performance evaluation was rated "Substandard" and who has received a subsequent interim performance evaluation rated "Substandard" shall be subject to layoff before employees subject to Section 2.A.3 of this Article.
 - 3. Service Hours

After all new probationary employees, employees on temporary promotion, and employees subject to layoff under Section 2.A.2 of this Article have been removed from a class within a layoff unit, the employee with the lowest number of service hours shall be subject to layoff first. When two (2) or more employees have the same number of service hours, the Authority shall determine the order of layoff for these employees.
- B. Layoffs shall be made by class within the Authority, except that:
 - 1. Where a class has a dual or multiple concept, the Human Resources

Director may authorize a layoff by specialty within the class.

2. Where appropriate, the Human Resources Director may authorize a layoff by division or smaller unit.
- C. If a layoff is going to be made in a class from which an employee has left through a temporary promotion, the employee on temporary promotion shall be returned to his/her former class and shall be subject to layoff in accordance with this procedure.

Section 3. Notification of Employees

- A. Written notice of layoff shall be given to an employee or sent by mail to the last known mailing address at least fourteen (14) calendar days prior to the effective date of the layoff. Notices of layoff shall be served on employees personally at work, whenever practicable.
- B. It is the intent of the Authority that the number of layoff notices initially issued shall be limited to the number of positions by which the workforce is intended to be reduced. Additional notices shall be issued as other employees become subject to layoff as a result of employees exercising reduction rights under Section 4 of this Article.
- C. The notice of layoff shall include: the reason for the layoff, the proposed effective date of the layoff, the employee's hire date, the employee's service hours, a list of classes in the employee's occupational series within the layoff unit, the employee's rights under Sections 4 and 5 of this Article, and the right of the employee to advise the Authority of any objection to the content of the layoff notice prior to the proposed effective date of the layoff.

Section 4. Voluntary Reduction in Lieu of Layoff

- A. A promotional probationary or regular employee who is subject to layoff may request a reduction to a lower class within the same occupational series in the layoff unit, provided the employee possesses the minimum qualifications for the class and passes any required performance tests. The reduction shall be made if there is a vacant position in the layoff unit or an incumbent in the lower class in the layoff unit has fewer service hours than the employee requesting the reduction. In the latter case, the incumbent in the lower class with the lowest number of service hours shall be subject to layoff.
- B.
 1. Employees who receive notice of layoff by personal service at work shall have until the end of their third regularly scheduled day of work, following actual receipt of the notice, to notify the Authority in writing of their intent to exercise rights under this Section. Employees whose third regularly scheduled day of work is more than three (3) calendar days after receipt of the notice shall have three (3) calendar days, excluding weekends and holidays, to notify the Authority of their intent to exercise rights under this Section; and where such notification is not in writing, the employee shall confirm the notification in writing as soon as practicable.
 2. Employees who receive notice other than by personal service at work shall

have five (5) calendar days, excluding weekends and holidays, following the date the employee is personally served, or if service is made by mail, five (5) calendar days, excluding weekends and holidays, following the date of proof of service by mail, to notify the Authority of their intent to exercise rights under this Section. Where such notification is not in writing, the employee shall confirm the notification in writing as soon as practicable.

- C. Failure by an employee to respond to the Authority pursuant to this Section shall result in a rebuttable presumption that the employee does not intend to exercise any right of reduction to a lower class, and that the employee's hire date stated in the layoff notice was correct.
- D. No employee action or inaction referred to in this Section shall be considered a waiver of an employee's right to file grievances concerning any matter within the scope of the grievance procedure.

Section 5. Voluntary Reduction from Classes Designated as Vulnerable to Layoff

- A. An employee in a class designated by the Authority as vulnerable to layoff may request a voluntary reduction to any class, provided the employee possesses the minimum qualifications for the class, and has passed any required performance tests for the class to which reduction is requested. Such employees shall be eligible for consideration for available positions in the class to which reduction is requested. If appointed, such an employee shall be placed on AUTHORITY REINSTATEMENT LISTS pursuant to Section 6.A.3 of this Article.

Section 6. Reinstatement Lists

- A. The following persons shall be placed on AUTHORITY REINSTATEMENT LISTS as provided in Sections 6.A.1., 6.A.2., and 6.A.3. of this Article in the order of their respective service hours with the person having the largest number of service hours listed first, except that employees laid off pursuant to Section 2.A.2. of this Article shall be placed in service hour order after all other employees.
 - 1. Persons Laid Off - The names of persons laid off shall be placed on a REINSTATEMENT LIST for each class in the occupational series at or below the level of the class from which laid off.
 - 2. Persons Who Exercise Their Rights under Section 4 of this Article - The names of persons who exercise their rights under Section 4 of this Article shall be placed on a REINSTATEMENT LIST for each class in the occupational series at or below the level of the class from which reduced, excluding any classes at or below the level of the class currently held.
 - 3. Persons Who Voluntarily Reduced Under the Provisions of Section 5 of this Article - The names of persons who were voluntarily reduced under the provisions of Section 5 of this Article shall be placed on a REINSTATEMENT LIST for the class from which reduced and for each class in the occupational series below the level of the class from which they voluntarily reduced, provided they request to be placed on such Lists.

Positions to be filled shall be offered first to persons on the REINSTATEMENT LIST for that class, starting at the top of the List. If reinstatement is offered to a class other than that from which the person was laid off or reduced, such person must

first meet the minimum qualifications for the class, and pass any required performance tests for that class.

- B. Names of persons placed on the REINSTATEMENT LIST shall remain on the Lists for two (2) years, except that:
 - 1. A person who, on two (2) separate occasions, rejects or fails to respond within five (5) calendar days to offers of employment in a particular class shall be removed from the Lists for that class.
 - 2. A person who, on three (3) separate occasions, declines referral for interviews in a particular class shall be removed from the Lists for that class.
 - 3. A person who retires from the Authority shall be removed from all Lists.
- C. The Lists may be extended for a period not to exceed one (1) year, at the discretion of the Human Resources Director prior to thirty (30) days before the Lists' expiration dates.
- D. REINSTATEMENT LISTS shall be available to affected employees upon reasonable request.

Section 7. Status on Reinstatement

- A. An employee who has been laid off under the provisions of this Article and subsequently reinstated in a regular or limited-term position within a two (2) year period from the date of his/her layoff shall receive the following considerations and benefits:
 - 1. All sick leave credited to the employee's account when laid off shall be restored.
 - 2. All service hours held upon layoff shall be restored.
 - 3. All prior service shall be credited for the purpose of determining sick leave and vacation earning rates and service awards.
 - 4. The employee shall be placed in the salary range as if the employee had been on a Leave of Absence Without Pay.
 - 5. The probationary status of the employee shall be as if the employee had been on a Leave of Absence Without Pay, except that a probation period shall be established as determined by Part 2, Article III, Section 3.B if reinstatement is in a higher class or an occupational series different from that employed in at the time of layoff.
- B. An employee who has voluntarily reduced under the provisions of this Article and subsequently is reinstated in a regular or limited-term position in the class from which the employee reduced within a two (2) year period from the date of reduction shall receive the following considerations: The employee shall be placed in the salary range either as if the employee had been on a Leave of Absence Without Pay or at the same point/rate on the salary range as the employee's salary in the lower class, whichever is higher. The probationary status of the employee shall be as if the employee had been on a Leave of Absence.

- C. When an employee is reduced under the provisions of this Article and is subsequently reinstated in a class higher than the one from which the employee was reduced, the employee shall be deemed returned to the class from which the employee had been reduced as provided above, and the employee's salary and probation period shall be determined by treating the employee as though he/she is being promoted from such class.

ARTICLE III

ON-THE-JOB INJURIES, WORKERS' COMPENSATION

Section 1. Medical Treatment

- A. Whenever an employee sustains an injury or disability arising out of and in the course of Authority employment that requires medical treatment, the employee shall obtain treatment pursuant to the appropriate California Labor Code Sections.

Section 2. Disability Payments and Leave

- A. Workers' compensation supplement pay shall begin the same day as the workers' compensation temporary disability benefits. Prior to qualifying for workers' compensation temporary disability benefits, an injured employee may, at his/her option, use any accrued sick leave, compensatory time, and/or vacation, in that order.
- B. While an employee receives workers' compensation supplement pay, no deductions nor payments shall be made from any sick leave, compensatory time, or vacation time previously accumulated by the employee. The employee shall not accrue sick leave or vacation credit during the period in which the employee receives workers' compensation temporary disability benefits.
- C. The probation period of any employee who receives workers' compensation benefits shall be extended by the length of time the employee receives such benefits, except that the first fifteen (15) consecutive calendar days from the date of the injury shall be considered Authority service for completion of the probation period.
- D. When an employee is no longer entitled to receive workers' compensation supplement pay, the employee may, at his/her option, use sick leave, compensatory time, and vacation, in that order, if the employee is compelled to be absent from duty as set forth in Section 2.B of this Article.
- E. Time during which an employee receives workers' compensation temporary disability benefits shall be counted toward the computation of Authority seniority and determination of sick leave and vacation earning rates.
- F. Authority employees covered by Section 4850 of the Labor Code shall receive leave and benefits as provided by Section 4850.
- G. Whenever an employee is compelled to be absent from duty by reason of injury or disease arising out of and in the course of Authority employment, the employee shall receive workers' compensation supplement pay that, when added to the workers' compensation temporary disability benefit, shall equal eighty (80) percent of the employee's base salary for a period not to exceed one (1) year, including holidays.

- H. When an injury is determined to be job-related by the Authority or by the Workers' Compensation Appeals Board, eighty (80) percent of all sick leave, compensatory time, and/or vacation expended since the fourth day of disability shall be restored to the employee's account(s), except that if the injury required the employee's hospitalization or caused disability of more than fourteen (14) days, eighty (80) percent of all sick leave, compensatory time, and/or vacation expended since the first day of disability shall be restored to the employee's account(s).

Section 3. Exposure to Contagious Diseases

- A. Whenever an employee is compelled by direction of an Authority designated physician to be absent from duty due to an on-the-job exposure to a contagious disease, the employee shall receive regular compensation for the period absent from duty.

Section 4. Injury to Volunteer Reserve Firefighter

- A. Whenever an employee who is also a Volunteer Reserve Firefighter is compelled to be absent from his/her regular employment due to injury arising out of and in the course of his/her volunteer service as a Volunteer Reserve Firefighter, such employee shall receive temporary disability and/or permanent disability as prescribed by the California Labor Code relative to workers' compensation benefits.

ARTICLE IV

SAFETY

Section 1. General Provisions

- A. The Authority shall make reasonable efforts to provide and maintain a safe place of employment. Employees shall be alert to unsafe practices, equipment, and conditions and report any such unsafe practices, equipment, or conditions to their immediate supervisors. Employees shall follow safe practices and obey reasonable safety rules during the hours of their employment.
- B. Any employee who either does not receive an answer to a safety-related question from his/her supervisor within three (3) days, or receives an answer that the employee deems unsatisfactory, may directly contact the designated Authority Safety Officer.
- C. Any employee who is directed to perform a task that the employee in good faith feels is unsafe may request an immediate investigation from the designated Authority Safety Officer. During the period that the designated Authority Safety Officer is conducting an investigation, the employee shall be assigned to other work at no loss of earnings. If the task is ruled to be safe by the designated Authority Safety Officer, the employee shall be required to perform the duties assigned.
- D. In accordance with OCFA standard operating procedure HR 04.01, the Authority shall establish guidelines to notify the investigative team of the existence of a serious injury or fatality involving an employee and to secure the scene until such time as the investigative team can conduct an investigation of the serious injury or fatality. This would involve securing the equipment directly involved, the immediate area to the incident, and the apparatus directly involved.
- E. The Authority shall furnish all equipment that is necessary for employees to perform their job in a safe manner.
- F. Wherever practicable, the Authority shall provide the necessary first aid kits in each location.
- G. Wherever practicable, the Authority shall provide first aid training for one (1) employee at each new work location.
- H. No employee shall be required to work under conditions dangerous to the employee's health or safety.

Section 2. Abatement of Violations

- A. In any instance in which the Authority is cited for a violation of California/OSHA, the Authority shall abate the cited hazard to health or safety within the abatement period required.

ARTICLE V

DEPENDENT CARE ASSISTANCE PROGRAM

The Authority shall administer a Dependent Care Assistance Program that allows employees to take advantage of a salary reduction program to pay for dependent care as permitted in the Internal Revenue Code.

PART 3 - EXECUTIVE MANAGEMENT
ARTICLE I

TERMS AND CONDITIONS OF EMPLOYMENT

Section 1. General Provisions

- A. Except as otherwise provided in this Article or by State law or action of the Board and except where the natural construction of a provision indicates otherwise, the wages, hours, and terms and conditions of employment for Executive Management employees shall be the same as adopted for employees in the Administrative Management Unit. However, any provision requiring Fire Chief approval for Administrative Management employees that could also benefit the Fire Chief shall be forwarded to the Board for approval.

Section 2. At-Will Appointments

- A. Notwithstanding any other provision of this Personnel and Salary Resolution, employees appointed to Executive Management positions, exclusive of the Fire Chief, shall serve at the pleasure of the Fire Chief. Prior to such an appointment, the Human Resources Director shall obtain written acknowledgement from the prospective appointee acknowledging his/her understanding of such At-Will status.
- B. Such employees may be removed from their position at any time without notice, cause, or rights of appeal. In the event such employees are removed from their positions, the Authority shall provide, at the discretion of the Fire Chief, either severance pay OR reassignment as described below:
1. Severance Pay - In the event such employee is removed from his/her position prior to the third year anniversary of his/her appointment without being reassigned, the Authority shall pay a sum equal to three (3) months of the base annual salary that is in effect as of the date of the termination. In the event such employee is removed from his/her position after the third year anniversary without being reassigned, severance pay shall be increased by one (1) month for each additional year or portion thereof, up to a maximum of six (6) months in total.
 2. Reassignment - In the event such employee is removed from his/her position without severance pay, the Authority shall reassign said employee to a non-Executive Management position in a lower class, in which he/she passed probation immediately prior to becoming an At-Will employee, or an equivalent position. In such event, employee shall be placed at the middle of the applicable salary range. Said reassignment shall not result in layoff of any other employee. Employees appointed to such Executive Management positions from outside the Authority shall have no rights to a lower level position.

- C. Notwithstanding the provisions of this Section, the Authority shall have the right to dismiss for reasonable cause any Executive Management employee, and may do so without compliance with Sections 2.B.1 or 2.B.2 of this Article. In such an event, the provisions of Part 2, Articles VIII, DISCIPLINARY AND PREDISCIPLINARY ACTIONS, and IX, GRIEVANCE PROCEDURE, shall be fully applicable.
- D. Reasonable Cause

For purposes of this Section, the term, "reasonable cause" shall include, but not be limited to, the following: (1) dishonesty, (2) insubordination, (3) incompetence, (4) neglect of duty, (5) excessive or unexcused absences, (6) possession, use, or sale of alcohol or illegal narcotics while on Authority duty or premises, (7) misuse or misappropriation of Authority property or funds, (8) conflict of interest, (9) improper political activity, (10) intentionally misrepresenting information or facts in any statement, declaration of affidavit made by an employee, (11) any conduct, act, or omission either during or outside duty hours that is of such a nature that it causes discredit to the Authority or the firefighting profession, or that conduct, act, or omission has a disruptive effect on the efficiency or integrity of the public service, (12) any violation of the Authority's General Orders or Standard Operating Procedures.

Section 3. Life Insurance

- A. Executive Management employees shall receive life and accidental death and dismemberment insurance, at no cost to the employee, in an amount equal to their base annual salaries, adjusted to the closest ten thousand (10,000) dollars regardless of age with the option to purchase additional coverage, including dependent coverage.

Section 4. Optional Benefit Plan (OBP)

- A. All provisions that apply to Administrative Management shall also apply to Executive Management, except that the amount of the Optional Benefit Plan shall be three thousand five hundred (3500) dollars for Executive Management employees for each calendar year.

Section 5. CalPERS Health Care

- A. The Authority shall continue to maintain its contract with the California Public Employees Retirement System (CalPERS) for employees' health care coverage.
- B. Except as provided in Sections 5.C.1 and 5.C.2 of this Article, the Authority shall contribute toward the payment of health care premiums under the CalPERS Health Benefits Plan on behalf of each eligible active employee and each eligible retiree, an equal contribution as set forth in California Government Code Section 22892.
- C. The Authority shall continue to maintain its Section 125 Cafeteria Plan for active eligible employees and pay the following amounts for employees' health care coverage and other benefits:
 - 1. Except as modified in Section 5.D. of this Article, each full-time (regular, limited-term, or probationary) employee shall receive the dollar value of one hundred

percent (100%) of the employee's health plan premium or seventy-five percent (75%) of the total health plan premium selected by the employee, whichever is greater. That amount shall include the contribution towards the employee's Cafeteria Plan as set forth in California Government Code Section 22892. The employee may elect to contribute the entire value to his/her health care premium or allocate a portion of the value to other benefits offered under the Cafeteria Plan. If the employee elects to allocate part of the value to other benefits, any unpaid balance of the employee's health care premium shall be deducted from the employee's paycheck.

2. Except as modified in Section 5.D. of this Article, each part-time (regular, limited-term, or probationary) employee shall receive the dollar value of fifty percent (50%) of the employee's health plan premium or thirty-seven and five-tenths percent (37.5%) of the total health plan premium selected by the employee, whichever is greater, and that amount shall include the contribution towards the employee's Cafeteria Plan as set forth in California Government Code Section 22892, provided the employee's normal workweek consists of at least twenty (20) hours. Health care coverage and other benefits provided as part of the Cafeteria Plan shall be terminated for any employee whose normal workweek is reduced to less than twenty (20) hours. The employee may elect to contribute the entire value to his/her health care premium or allocate a portion of the value to other benefits offered under the Cafeteria Plan. If the employee elects to allocate part of the value to other benefits, any unpaid balance of the employee's health care premium shall be deducted from the employee's paycheck.
- D. For employees who are on approved Family Leave, the Authority shall continue to pay health insurance premiums as provided in Sections 5.C.1 and 5.C.2 of this Article to the extent required by applicable law.
 - E. Upon showing sufficient proof of alternate health care coverage, such as a certificate of coverage, a full-time or part-time (regular, limited-term or probationary) employee shall be entitled to a fifty-five (55) dollar biweekly credit to his/her Cafeteria Plan, in lieu of the amount provided in Sections 5.C.1 and 5.C.2 of this Article. This credit may be applied towards benefits offered under the Cafeteria Plan, including accidental death and dismemberment insurance or miscellaneous pay.
 - F. For 2016, the Director of Communications and the Human Resources Director shall receive a monthly cash allotment in the amount of one thousand six hundred fifty three dollars and fifty four cents (\$1,653.54) to be applied toward health care coverage and other benefits. The amount shall be adjusted annually each January in the amount equal to the average percentage increase of CalPERS Health Plans for that year. The average percentage increase shall be computed by averaging the increase in CalPERS Health Plans in which the employees are eligible to participate, with the exclusion of the Plan with the highest premium. In addition to purchasing health care coverage, the Director of Communications and the Human Resources Director, at his/her option, may receive any or all remaining funds in cash or defer such funds to an Authority offered Deferred Compensation Plan.

Section 6. Range Adjustment

- A. The bottom of the salary range for Assistant Chief shall be established at five and five-tenths percent (5.5%) above the maximum attainable Fire Division Chief salary. The top for this range shall be established at seven and five-tenths percent

(7.5%) above the bottom. Maximum attainable salary is defined as the sum of the top of the salary range for Fire Division Chief plus any additional non-base salary building compensation provided to the majority of employees in this classification.

- B. The top of the salary range for ~~Human Resources Director and~~ Director of Communications shall be established at ~~seven and five-tenths percent (7.5%) above the maximum attainable salary within the OCFAMA classifications. twenty five percent (25%) below the bottom of the salary range for Assistant Chief. The bottom of the salary range for Director of Communications shall be seven and five-tenths percent (7.5%) below the top of the range.~~
- C. The bottom of the salary range for Deputy Fire Chief shall be established at the top of the Assistant Chief salary range. The top for this range shall be established at seven and five-tenths (7.5) percent above the bottom.
- D. Movement within the salary ranges shall be based on job performance and shall be approved by the Fire Chief.

Section 7. Deferred Compensation

- A. An employee in the classifications designated as Executive Management shall receive a biweekly deferred compensation contribution from the Authority in the amount equal to four and five-tenths percent (4.5%) of the employee's biweekly base salary. Such contribution shall go into the employee's designated account within the Authority's Deferred Compensation Plan.

Section 8. Authority Issued Vehicles and Cash in Lieu Allowance Policy

- A. Intent of Policy

This policy has been developed to provide a consistent application of the Vehicle Allowance benefit that covers the issuance of an Authority vehicle or a cash allowance in lieu of an Authority issued vehicle.

- B. Authority Issued Vehicle

- 1. Emergency/Code 3 Response Vehicles

Based on the duties performed by each member of the Executive Management group, the Fire Chief shall determine if an employee shall be required to maintain a twenty-four (24) hour emergency/Code 3 response vehicle. This determination shall be based on the specific requirement of the job and shall take all of the following conditions into consideration:

- The duties of the position require a twenty-four (24) hour seven (7) days a week emergency/Code 3 response status.
- The duties require that the vehicle be equipped with emergency/Code 3 response and communications equipment, i.e., emergency lights, siren, emergency radio, etc.
- The duties dictate the use of the vehicle in a manner that insurance coverage is not available on an individual basis, i.e., emergency response and wildland traversing.

Upon determination by the Fire Chief that the Executive Management member's duties require an Authority issued emergency/Code 3 equipped

response vehicle, the Fire Chief shall assign such vehicle to the employee. The Fire Chief, at his/her discretion, may at any time determine that there is no need for such vehicle and revoke the use of the vehicle.

Emergency/Code 3 response vehicles shall be provided at the discretion of the Fire Chief and be in accordance with the following conditions:

- Those employees who shall be provided emergency/Code 3 response vehicles may use the vehicles for personal use, but shall be available on a twenty-four (24) hour, seven (7) days a week emergency/Code 3 response status.
- The vehicles shall all conform to an established accessory standard.
- The vehicles shall be equipped with emergency/Code 3 equipment and shall be absent of visible organizational markings.
- The operation of the vehicles is limited to the employee and spouse when the employee is present in the vehicle.
- Authority provided vehicles shall not be taken out of the state without the approval of the Fire Chief
- Authority provided fuel for Authority issued vehicles shall be for business use only.

2. Record Keeping

It is understood that if an employee is issued an Authority vehicle, the vehicle shall be used for business and personal use. In determining the cash value of the personal use of the vehicle, the method of "Annual Lease Value" shall be applied. Upon receipt of the appropriate information from the employee, the Finance Manager shall calculate the appropriate cash value for the vehicle's personal use. The cash value shall be identified on the individual's W-2 in Box 1 as taxable income. The cash value shall cover the cost of the vehicle and its maintenance and insurance.

C. Vehicle Cash Allowance

Those Executive Management employees who are not determined by the Fire Chief to be required to maintain a twenty-four (24) hour a day seven (7) days a week emergency/Code 3 response vehicle shall receive a monthly cash allowance in the amount of five hundred (500) dollars for the use of their personal vehicle for Authority business. Such allowance shall be identified on their W-2 in Box 1, as taxable income.

Employees who use their personal vehicle for business purposes shall comply with the following requirements:

- They shall maintain and provide proof of adequate levels of personal vehicle insurance coverage.
- They shall purchase their own fuel for the vehicle.

- They shall ensure that the vehicle is properly maintained.

Section 9. Retirement Formula – 3% at 50 (Safety Employees Hired before July 1, 2011)

- A. The Authority shall continue the 3% at 50 retirement formula for active Safety Member employees hired before July 1, 2011 for all years of service as specified under California Government Code Section 31664.1.
- B. Employees in Executive Management shall pay their maximum employee contribution (based on age of entry into OCERS).
- C. The employee deduction shall continue during the employee's employment period with the Authority or until such time that the employee qualifies under Government Code Section 31664.1(c). At any time, if there are increases to the maximum employee contribution to OCERS, employees will pay those employee contributions.

Section 10. Retirement Formula – 3% at 55 (Safety Employees Hired From July 1, 2011 Through December 31, 2012 or Employees Hired On or After January 1, 2013 With Reciprocal Retirement Benefits)

- A. The Authority shall continue the 3% at 55 retirement formula for active safety employees who were hired from July 1, 2011 through December 31, 2012 or hired on or after January 1, 2013 and establish reciprocity with the Orange County Employees Retirement System, for all years of service, as specified under California Government Code Section 31664.2.
- B. Employees in Executive Management shall pay their maximum employee contribution (based on age of entry into OCERS).
- C. At any time, if there are increases to the maximum employee contribution to OCERS, employees will pay those employee contributions. This deduction shall continue during the employee's employment period with the Authority and may increase at such time that the Government Code requires the employee to contribute a greater amount, or until such time that the employee qualifies under GC 31664.1(c).

Section 11. Retirement Formula – 2.7% at 57 (Safety Employees Hired On or After January 1, 2013 With No Reciprocal Retirement Benefits)

- A. The Authority shall continue the 2.7% at 57 retirement formula for active safety employees who were hired on or after January 1, 2013 who do not establish reciprocity with the Orange County Employees Retirement System, for all years of service, as specified under California Government Code Section 7522.25(d). Effective upon employment by the Authority, the Authority shall make a deduction from the employee's Compensation Earnable in the amount equal to 50% of the normal retirement cost toward the employee's retirement contribution. This deduction shall continue during the employee's employment period with the Authority and may increase at such time that the Government Code requires the employee to contribute a greater amount.

Section 12. Retirement Formula – 2.7% at 55 (Non-Safety Employees Hired Prior to December 1, 2012)

- A. The Authority shall continue the 2.7% at 55 retirement formula for active non-safety employees who were hired prior to December 1, 2012.
- B. Employees in Executive Management shall pay their maximum employee contribution (based on age of entry into OCERS).
- C. At any time, if there are increases to the maximum employee contribution to OCERS, employees will pay those employee contributions. The deduction shall continue during the employee's employment period with the Authority and may increase at such time that the Government Code requires the employee to contribute a greater amount.

Section 13. Retirement Formula – 2% at 55 (Non-Safety Employees Hired From December 1, 2012 Through December 31, 2012 or Employees Hired On or After January 1, 2013 With Reciprocal Retirement Benefits)

- A. The Authority shall continue the 2% at 55 retirement formula for active non-safety employees who were hired from December 1, 2012 through December 31, 2012 or hired on or after January 1, 2013 and have established reciprocity with the Orange County Employees Retirement System, for all years of service, as specified under California Government Code Section 31676.12.
- B. Employees in Executive Management shall pay their maximum employee contribution (based on age of entry into OCERS).
- C. At any time, if there are increases to the maximum employee contribution to OCERS, employees will pay those employee contributions. This deduction shall continue during the employee's employment period with the Authority and may increase at such time that the Government Code requires the employee to contribute a greater amount.

Section 14. Retirement Formula – 2.5% at 67 (Non-Safety Employees Hired On or After January 1, 2013 With No Reciprocal Retirement Benefits)

- A. The Authority shall continue the 2.5% at 67 retirement formula for active non-safety employees who were hired on or after January 1, 2013 and do not establish reciprocity with the Orange County Employees Retirement System, for all years of service, as specified under California Government Code Section 7522.20. Effective upon employment by the Authority, the Authority shall make a deduction from the employee's Compensation Earnable in the amount equal to 50% of the normal retirement cost toward the employee's retirement contribution. This deduction shall continue during the employee's employment period and may increase at such time that the Government Code requires the employee to contribute a greater amount.

Section 15. Retiree Medical Insurance Grant

- A. All provisions that apply to Administrative Management shall also apply to Executive Management.

PART 4
IMPLEMENTATION

Unless otherwise indicated, all provisions of this Personnel and Salary Resolution shall be effective June 27, 2002.

APPENDIX A

EXECUTIVE MANAGEMENT CLASSIFICATIONS

Fire Chief
Deputy Fire Chief
Assistant Chief
Director of Communications
Human Resources Director

APPENDIX B

ADMINISTRATIVE MANAGEMENT CLASSIFICATIONS

0570 Accounting Manager
1810 Assistant Clerk of the Authority
1374 Assistant Information Technology Mgr - Customer Relations & Consulting
1371 Assistant Information Technology Mgr - GIS & Data Management
1373 Assistant Information Technology Mgr - Infrastructure & Workplace Support
1372 Assistant Information Technology Mgr - Portfolio & Procurement
1710 Assistant Treasurer
0750 Benefit Services Manager
1820 Clerk of the Authority
0440 Construction Manager
0190 Deputy Fire Marshal
1530 EMS Coordinator
1250 Emergency Communications Center Manager
0430 Facilities Maintenance Manager
0590 Finance Manager
0280 Fleet Services Manager
0765 Human Resources Manager
1370 Information Technology Manager
1630 Legislative Analyst
1620 Management Analyst
1540 Medical Director
0760 Organizational and Development Training Program Manager
0560 Payroll/Accounts Payable Manager
0450 Property Manager
0330 Purchasing and Materials Manager
0860 Risk Management Analyst
0870 Risk Management Safety Officer
0880 Risk Manager
0550 Senior Accountant
0740 Senior Human Resources Analyst
1720 Treasurer



Orange County Fire Authority
AGENDA STAFF REPORT

Board of Directors Meeting
November 16, 2023

Agenda Item No. 2G
Consent Calendar

Audited Financial Reports for the Fiscal Year Ended June 30, 2023

Contact(s) for Further Information

Robert Cortez, Assistant Chief robertcortez@ocfa.org 714.573.6012
Business Services Department

Gina Cheung, Accounting Manager ginacheung@ocfa.org 714.573.6303

Tammie Pickens, General Accounting Manager tammiepickens@ocfa.org 714.573.6320

Summary

This annual agenda item is submitted to present the OCFA's audited Annual Comprehensive Financial Report and other audited financial reports for the fiscal year ended June 30, 2023, in compliance with the provisions of Section 6505 of the California Government Code and the Amended Joint Powers Agreement.

Prior Board/Committee Action

On November 8, 2023, the Budget and Finance Committee reviewed the proposed agenda item and directed staff to place the item on the Board of Directors agenda by a vote of 7-0 (Directors Patel and Nguyen absent).

RECOMMENDED ACTION(S)

1. Receive and approve the reports.
2. Review the calculations used to determine the fund balance amounts assigned to the capital improvement program and workers' compensation, and confirm the calculations' consistency with the OCFA's Assigned Fund Balance Policy.

Impact to Cities/County

Not Applicable.

Fiscal Impact

Not Applicable.

Background

See attached expanded background.

Attachment(s)

1. Annual Comprehensive Financial Report for the Year Ended June 30, 2023
2. Report on Internal Control for the Year Ended June 30, 2023
3. Single Audit Report for the Year Ended June 30, 2023
4. Audit Communication Letter for the Year Ended June 30, 2023
5. Assigned Fund Balance Calculations as of June 30, 2023 for:
 - A. Capital Improvement Program
 - B. Workers Compensation
6. Calculation of Unencumbered Fund Balance as of June 30, 2023

Background

Financial Audit and Reports

Lance, Soll & Lunghard, LLP, Certified Public Accountants (LSL), performed OCFA’s annual financial audit for Fiscal Year 2022/23. Their work included an audit of OCFA’s financial statements in accordance with generally accepted auditing standards (GAAS); a review of internal controls to determine the depth of planned audit procedures; and a Single Audit of federal grant expenditures. The following Fiscal Year 2022/23 audit reports are being submitted for approval:

- **Annual Comprehensive Financial Report** (Attachment 1) – OCFA’s Finance Division staff has prepared the Annual Comprehensive Financial Report (ACFR) for the fiscal year ended June 30, 2023. This report includes OCFA’s audited financial statements, as well as additional background and multi-year statistical information. The auditors issued an unmodified or “clean” opinion, which states that OCFA’s financial statements are fairly presented, in all material respects, in accordance with generally accepted accounting principles (GAAP). The auditors’ opinion is presented on Pages 1 - 3 of the ACFR.
- **Report on Internal Control** (Attachment 2) – The auditors have reported no significant deficiencies or material weaknesses in their report on internal control over financial reporting, compliance, and other matters.
- **Single Audit Report** (Attachment 3) – This report includes a review of federal grant funds expended by OCFA during the fiscal year. The major program selected for more in-depth testing was National Urban Search and Rescue (US&R) Response System. Below is a summary of the auditors’ results as described in the report:

	Financial Statements (Financial Reporting)	Federal Awards (Major Federal Programs)
Type of opinion	Unmodified	Unmodified
Internal control:		
Material weakness identified?	No	No
Significant deficiency identified?	No	No
Noncompliance material to the financial statements noted?	No	n/a
Findings required to be reported in accordance with Title 2 U.S. Code of Federal Regulations (CFR) Part 200?	n/a	No

- **Audit Communication Letter** (Attachment 4) – Professional standards require the auditors to communicate certain information pertaining to the audit directly to those charged with the governance. This letter provides communication in several areas, including qualitative aspects of OCFA’s accounting practices, any difficulties encountered while performing the audit, corrected and uncorrected financial statement misstatements, any disagreements with management, management’s representations to the auditors, any consultation by management with other auditors, other audit findings or issues, and various other matters.

In the “Other Audit Findings or Issues” section of this letter, LSL noted its reliance on audit information provided by other audit firms to audit certain components of OCFA’s financial statements. Those components include (1) assets held in trust by the Orange County Employees Retirement System (OCERS) for OCFA’s Retiree Medical Plan, which was audited by Moss Adams, LLP; and (2) the Orange County Fire Authority Foundation (Foundation) discretely presented component unit, which was audited by Tahim & Associates. For the Foundation, variances were observed between a separate audit report issued by Tahim & Associates, as compared to the amounts reported in OCFA’s financial statements that were prepared by OCFA management. As a result, LSL performed additional audit procedures and concluded that the variances between the two reports were immaterial. Absent the Foundation reconciling its financial statements to ensure consistency with that of OCFA’s financial statements, we anticipate that variances will continue to be reported in the future.

The ACFR will be published electronically on OCFA’s website. The ACFR and other audit reports will be filed with the County Auditor-Controller, the State Controller’s Office, the State Auditor, the Federal Audit Clearinghouse, and other grant agencies, as applicable. Copies for public review are available at the office of the Clerk of the Authority.

Assigned Fund Balance

The Board of Directors has adopted an *Assigned Fund Balance Policy*, which delegates authority to assign fund balance amounts for the capital improvement program and workers’ compensation from the Board of Directors to the Deputy Chief of the Administrative & Support Bureau, or his/her designee, with a final review of the calculation by the Budget and Finance Committee. The Budget and Finance Committee’s review of the calculation occurs each year at the time the audited financial statements are approved and confirms the calculation’s consistency with the provisions of the policy. OCFA’s fund balance as of June 30, 2023, includes assignments for the capital improvement program (\$22,262,329) and workers’ compensation (\$143,334,044), with detailed calculations included as Attachments 5A and 5B.

Current Year Changes in Financial Statement Reporting

During Fiscal Year 2022/23, OCFA implemented Governmental Accounting Standards Board (GASB) Statement No. 96 *Subscription-Based Information Technology Arrangements*, which provides guidance on the accounting and financial reporting for subscription-based information technology arrangements (SBITAs) for government end users. A SBITA is a contract that conveys control of the right to use another party’s information technology software, alone or in combination with tangible capital assets, as specified in the contract for a period of time in an exchange or exchange-like transaction. Under the statement, a government generally should recognize a right-to-use subscription asset – an intangible asset – and a corresponding subscription long-term liability.

As part of the implementation process, OCFA staff identified and analyzed a variety of information technology contracts and agreements to assess the applicability of GASB Statement No. 96. The Finance Division also established a SBITA materiality threshold for financial reporting purposes. Only SBITA contracts with a fixed and fixed in-substance future payment stream over the subscription term estimated at \$50,000 or more are reported in OCFA’s audited financial statements. As of June 30, 2023, all SBITA contracts meeting the criteria of GASB Statement No. 96 were below this materiality threshold; however, new or amended contracts will now be analyzed annually for ongoing compliance with this new statement.

Net Pension Liability (Asset) vs. Unfunded Actuarial Accrued Liability

OCFA follows GASB Statements No. 68 *Accounting and Financial Reporting for Pensions* and No. 71 *Pension Transition for Contributions Made Subsequent to the Measurement Date*. Under these accounting standards, the **funding** or paying of OCFA's pension liability is disconnected from the **reporting** of the liability and related pension expense in the audited financial statements.

Each year OCFA receives two separate actuarial valuations from the Orange County Employees Retirement System (OCERS) that are used to identify OCFA's annual costs and future obligations pertaining to the retirement plan for its full-time employees. Both actuarial valuations are prepared by Segal Consulting (Segal) on behalf of OCERS using a "measurement date" of December 31.

- **Funding Valuation:** The "funding valuation" is used to determine OCFA's Unfunded Actuarial Accrued Liability (UAAL) and to set required contribution rates for the upcoming fiscal year. The method in which governmental employers fund their UAAL is systematic and assumed to occur over a long period of time. Contributions paid annually over the UAAL's amortization period are intended to accumulate to an amount necessary to fund the UAAL over time. OCFA's UAAL as reported in the December 31, 2022, funding valuation totaled \$158 million.
- **GASB Reporting Valuation:** The "GASB reporting valuation" is used to determine OCFA's Net Pension Liability (NPL) or Net Pension Asset (NPA); annual pension expense (or credit); and related calculations for financial reporting purposes in compliance with GASB Statement No. 68. The actuarial assumptions in this report differ from the "funding valuation" since they must comply with national GASB standards that are consistently applied by all governments. Amounts in this valuation may materially change from one year to the next, creating more volatility in the pension expense recognized in the financial statements (as compared to the required contributions identified in the "funding valuation"). OCFA's Net Pension Liability for its OCERS pension plan reported in the June 30, 2023, audited financial statements totaled \$279 million. More detailed information regarding this long-term net liability can be found on the Statement of Net Position and in the Notes to the Financial Statements No. 24 (Attachment 1).

Currently, the net difference between OCFA's UAAL (funding) and NPA (reporting) is \$121 million, which is the result of different liability and asset values used in measuring these amounts in the separate actuarial valuations. The primary differences are attributed to the NPA being calculated using the plan's current market value of assets, and the UAAL being calculated by adjusting the market value of assets for asset smoothing per the OCERS Actuarial Funding Policy. Differences are also created by timing differences of when actuarial gains and losses are recognized in the liability calculation for financial reporting purposes compared to funding valuation purposes. Segal has provided OCERS with a reconciliation to assist in understanding the underlying differences between the UAAL and the NPL for the retirement plan as a whole. Following is a recap of the Segal reconciliation including only the rate groups applicable to OCFA:

	Rate Group #8 (Safety)	Rate Group #10 General)	OCFA Total
Liability Reconciliation			
Actuarial accrued liability [L1]	\$2,213,633,000	\$317,358,000	\$2,530,991,000
Gains (losses) from lower (higher) than expected:			
Salary increases	25,747,000	2,903,000	28,650,000
Cost of living increases	(26,138,000)	(3,424,000)	(29,562,000)
Other experience gain or (loss)	(11,191,000)	(1,013,000)	(12,204,000)
Gain (loss) from rolled forward to actual liabilities	997,540	77,347	1,074,887
Total pension liability [L2]	\$2,203,048,540	\$315,901,347	\$2,518,949,887
Asset Reconciliation			
Valuation of assets [A1]	\$2,077,725,000	\$294,832,000	\$2,372,557,000
Adjustment for deferred investment return and non-valuation reserve	(116,181,404)	(16,486,299)	(132,667,703)
Market value of assets [A2]	\$1,961,543,596	\$278,345,701	\$2,239,889,297
Net Reconciliation			
Unfunded Actuarial Accrued Liability (UAAL) [L1-A1]; "Funding Valuation"	\$135,908,000	\$22,526,000	\$158,434,000
Net Pension Liability (NPL) or (Asset) (NPA) [L2-A2]; "GASB Reporting Valuation"	\$241,504,944	\$37,555,646	\$279,060,590
Net Difference [UAAL – NPL or (NPA)]	\$(105,596,944)	\$(15,029,646)	\$(120,626,590)
Difference in Liabilities	\$10,584,460	\$1,456,653	\$12,041,113
Difference in Assets	\$116,181,404	\$16,486,299	\$132,667,703
Net Difference [UAAL – NPL or (NPA)]	\$(105,596,944)	\$(15,029,646)	\$(120,626,703)

Structural Fire Fund

The Amended Joint Powers Agreement gives the Board of Directors the sole discretion to determine if sufficient unencumbered funds from the prior fiscal year are available for OCFA-related services or resource enhancements to over-funded Structural Fire Fund (SFF) members. This determination is made after consideration of the audited financial statements and after consideration of the OCFA's financial needs. Based on the audited financial statements for the fiscal year ended June 30, 2023, the unencumbered fund balance is \$173,363 (Attachment 6), which is 0.03% of the General Operating Fund budget for Fiscal Year 2023/24. Additional information on staff's recommendation for the \$173,363 fund balance allocation will be included with the 2023 Long Term Liability Study item tentatively scheduled for January 2024.

ACFR 2023

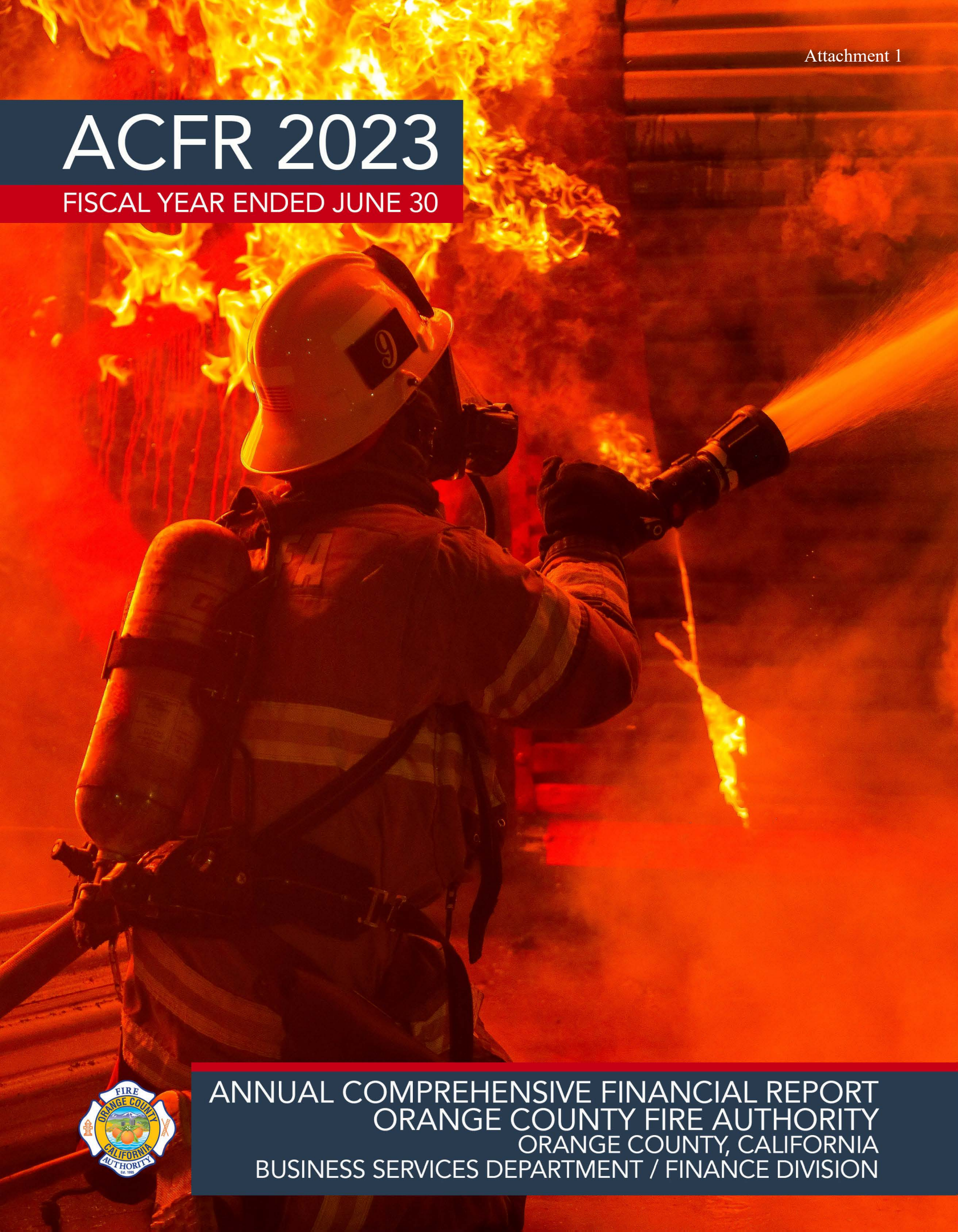
FISCAL YEAR ENDED JUNE 30



ANNUAL COMPREHENSIVE FINANCIAL REPORT
ORANGE COUNTY FIRE AUTHORITY
ORANGE COUNTY, CALIFORNIA
BUSINESS SERVICES DEPARTMENT / FINANCE DIVISION

ACFR 2023

FISCAL YEAR ENDED JUNE 30



ANNUAL COMPREHENSIVE FINANCIAL REPORT
ORANGE COUNTY FIRE AUTHORITY
ORANGE COUNTY, CALIFORNIA
BUSINESS SERVICES DEPARTMENT / FINANCE DIVISION



Orange County Fire Authority Annual Comprehensive Financial Report Year ended June 30, 2023

Board of Directors As of June 2023

Vince Rossini, Chair
City of Villa Park
(Board Member Since 2017)

John R. O'Neill, Vice Chair
City of Garden Grove
(Board Member Since 2019)

Ross Chun
City of Aliso Viejo
(Board Member Since 2020)

Joshua Sweeney
City of Laguna Hills
(Board Member Since 2023)

Carol Gamble
City of Rancho Santa Margarita
(Board Member Since 2011)

Austin Lumbard
City of Tustin
(Board Member Since 2022)

Connor Traut
City of Buena Park
(Board Member Since 2023)

Kelly Jennings
City of Laguna Niguel
(Board Member Since 2023)

Chris Duncan
City of San Clemente
(Board Member Since 2023)

Chi Charlie Nguyen
City of Westminster
(Board Member Since 2023)

Anne Hertz-Mallari
City of Cypress
(Board Member Since 2022)

Noel Hatch
City of Laguna Woods
(Board Member Since 2013)

Troy Bourne
City of San Juan Capistrano
(Board Member Since 2021)

Gene Hernandez
City of Yorba Linda
(Board Member Since 2013)

John Gabbard
City of Dana Point
(Board Member Since 2023)

Mark Tetterer
City of Lake Forest
(Board Member Since 2020)

Phil Bacerra
City of Santa Ana
(Board Member Since 2023)

Katrina Foley
County of Orange
(Board Member Since 2023)

Tammy Kim
City of Irvine
(Board Member Since 2023)

Shelley Hasselbrink
City of Los Alamitos
(Board Member Since 2015)

Joe Kalmick
City of Seal Beach
(Board Member Since 2021)

Donald Wagner
County of Orange
(Board Member Since 2019)

Nitesh Patel
City of La Palma
(Board Member Since 2023)

Bob Ruesch
City of Mission Viejo
(Board Member Since 2023)

David Shawver
City of Stanton
(Board Member Since 1995)

Brian Fennessy
Fire Chief

Prepared by OCFA Finance Division

Photos provided by OCFA Multimedia

Orange County Fire Authority



Mission Statement

We proudly serve the changing needs of our communities by providing exceptional emergency and support services. We pledge a commitment to preserving the quality of life.

Vision Statement

We are dedicated to protecting lives and property with first class public safety and emergency services through courage, compassion, and competency.

Values Statement and Service Principles

We rely on our PEOPLE and our Service Principles as we carry out our mission with:

- Professionalism
- Enthusiasm
- Organizational Integrity
- Pride
- Leadership
- Effectiveness

Service Principles guide our relationships with each other and with our customers:

- | | | |
|----------------------------|---------------------------|------------------------|
| • Safety | • Excellence | • Honesty and Fairness |
| • Financial Responsibility | • Ethics | • Reliability |
| • Teamwork | • Personal Accountability | • Diversity |
| • Trust | • Care and Respect | • Integrity |

Motto

In service of others!

ORANGE COUNTY FIRE AUTHORITY
Annual Comprehensive Financial Report
Year ended June 30, 2023

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Introductory Section





ORANGE COUNTY FIRE AUTHORITY
P. O. Box 57115, Irvine, CA 92619-7115 • 1 Fire Authority Rd., Irvine, CA 92602
(714) 573-6000 **www.ocfa.org**

October 9, 2023

To the Board of Directors and Citizens of Orange County:

We are pleased to present the Annual Comprehensive Financial Report (ACFR) of the Orange County Fire Authority (OCFA) for the fiscal year ended June 30, 2023. This report consists of management's representations concerning the finances of the OCFA and is presented using the financial reporting model outlined in statements issued by the Governmental Accounting Standards Board (GASB). Consequently, management assumes full responsibility for the completeness and reliability of the information presented in this report. As management, we assert that this financial report is complete and reliable in all material respects, to the best of our knowledge and belief.

OCFA management has established a comprehensive internal control framework to provide a reasonable basis for making its representations. This framework is designed to provide reasonable assurance that assets are safeguarded against loss from unauthorized use or disposition and that accounting transactions are executed in accordance with management's authorization and properly recorded so that the financial statements can be prepared in conformity with generally accepted accounting principles (GAAP). Because the cost of a control should not exceed the benefits to be derived, the objective of the internal control framework is to provide reasonable, rather than absolute, assurance that the financial statements are free of any material misstatements. The design and operation of internal controls also ensures that federal and state financial assistance funds are expended in compliance with applicable laws and regulations related to those programs.

OCFA's financial statements have been audited by Lance, Soll & Lunghard, LLP, a firm of certified public accountants. Based upon the audit, the independent auditor concluded that there was a reasonable basis for rendering an unmodified opinion that the OCFA's financial statements for the fiscal year ended June 30, 2023, are fairly presented in conformity with GAAP. The independent auditors' report is presented as the first component of the financial section of this report.

The Management's Discussion and Analysis (MD&A) narrative provides "financial highlights" and interprets the financial reports by analyzing trends and explaining changes, fluctuations, and variances in the financial data. The MD&A is also intended to disclose any known significant events or decisions that affect the financial condition of the OCFA. The MD&A complements, and should be read in conjunction with, this letter of transmittal.

Background Information on the OCFA

OCFA was formed on March 1, 1995, transitioning from the Orange County Fire Department to a joint powers authority (JPA) as allowed by California State Government Code 6500 et seq. OCFA is an independent entity similar to a special district. The service area includes twenty-three member cities and the unincorporated areas of Orange County. A twenty-five-member Board of Directors governs the OCFA, including an elected official appointed to represent each member city and two representatives from the County Board of Supervisors. OCFA is managed by an appointed Fire Chief who reports to the Board of Directors.

The OCFA Foundation (Foundation) was established in July 2010 as a nonprofit corporation to support OCFA with additional resources. The Foundation is governed by a separate, five-member Board of Directors with prior experience in government, community, or fire service organizations. OCFA's Fire Chief serves as the Chief Executive Officer of the Foundation. The Foundation is presented in this report as a discretely presented component unit due to the nature and significance of its relationship with OCFA.

Serving the Cities of: Aliso Viejo • Buena Park • Cypress • Dana Point • Garden Grove • Irvine • Laguna Hills • Laguna Niguel • Laguna Woods • Lake Forest • La Palma • Los Alamitos • Mission Viejo • Rancho Santa Margarita • San Clemente • San Juan Capistrano • Santa Ana • Seal Beach • Stanton • Tustin • Villa Park • Westminster • Yorba Linda and Unincorporated Areas of Orange County

RESIDENTIAL SPRINKLERS AND SMOKE ALARMS SAVE LIVES

The annual budget is the foundation for OCFA's financial planning and control. The budget development process begins in November. The budget team compiles the input from the section/division managers who follow the policies and guidelines established by Executive Management. The results are presented to Executive Management for review and prioritization. The draft budget is further refined through various committee reviews, including a City Managers' Budget and Finance Committee, a Capital Improvement Program Ad Hoc Committee, and the OCFA Budget and Finance Committee. The OCFA Budget and Finance Committee recommends the budget for approval by the Board of Directors in May or June. The Board has the option of holding a public hearing on the proposed budget and is required to adopt a final budget no later than June 30, the close of OCFA's fiscal year.

The appropriated budget is allocated by fund and department. Department Chiefs may make transfers of appropriations within a department. Transfers of appropriations between departments require the approval of Executive Management, and transfers between funds require the approval of the Board. Budget-to-actual comparisons are provided in this report for each individual governmental fund for which an appropriated annual budget has been adopted. A Budgetary Comparison Statement for the General Fund is presented in the governmental funds section of the accompanying financial statements. Budgetary Comparison Schedules for all remaining governmental funds with appropriated annual budgets are presented in the supplementary schedules section of the accompanying financial statements.

Information on Orange County and the Local Economy



The information presented in the financial statements is best understood when considered from the broader perspective of the local economic environment within which OCFA operates.

Orange County Profile:

Orange County is located along the southern coast of California, with Los Angeles County to the north; San Diego County to the south; and Riverside and San Bernardino counties to the east. Orange County covers an area of 799 square miles, with 42 miles of coastline along the Pacific Ocean, and is home to over 3.1 million people.¹ There are thirty-four cities in Orange County. OCFA provides regional fire services to twenty-three of those cities and the unincorporated areas throughout the county.

Economic Overview:

As the economy emerged from the COVID-19 pandemic, inflation surged to levels not seen since 1981. Inflation was reported at a high of 9.1% in June 2022, with the cost of food and energy soaring at record rates.² The three main contributing factors for high inflation appeared to be rising labor costs, energy prices, and interest rates. This generated excess demand and higher prices, which the Fed has attempted to slow down by raising interest rates, thus stabilizing prices and economic growth.³ From March 2022 to July 2023, the Fed increased interest rates by a combined 5.25%.⁴ As of July 2023, inflation had declined to 3.2%.⁵

Historically, the average time lag between when the Fed begins increasing the federal funds rates and the onset of a recession is ten quarters.⁶ Other early signals of a pending recession include declining job growth, declining housing starts, declining money supply, and a negative interest rate spread between the 10-year T-bond rate and the federal funds rate. The interest rate spread turned negative in December 2022. The average time lag between the onset of a negative interest rate spread and the beginning of a

¹ California Department of Finance, <http://www.dof.ca.gov/forecasting/demographics/estimates>, Table E-5 *Population and Housing Estimates for Cities, Counties, and the State, January 2014-2023*

² Tepper, Taylor. "Why is Inflation So High?" Forbes Advisor, July 13, 2022, <https://www.forbes.com/advisor/investing/why-is-inflation-rising-right-now/>. July 26, 2022.

³ Wile, Rob. "The Three Forces Driving Inflation Higher and What It Will Take to Cool Them Off." NBC News, April 19, 2022, <https://www.nbcnews.com/business/consumer/inflation-rate-higher-consumer-prices-driving-forces-rcna24128>. July 26, 2022.

⁴ Tepper, Taylor. "Federal Funds Rate History 1990 to 2023" Forbes Advisor, July 26, 2023, <https://www.forbes.com/advisor/investing/fed-funds-rate-history/>. August 28, 2023.

⁵ U.S. Inflation Calculator, a Coin Media Group Company, <https://www.usinflationcalculator.com/inflation/current-inflation-rates>, *Current US Inflation Rates: 2000-2023*

⁶ Chapman University, *Economic & Business Review*, June 2022, *Recessionary Clouds are Forming: The Anti-Inflation Battle Seeds Those Clouds*

recession is three quarters, suggesting that there may still be a recession in the U.S. economy in late 2023.⁷

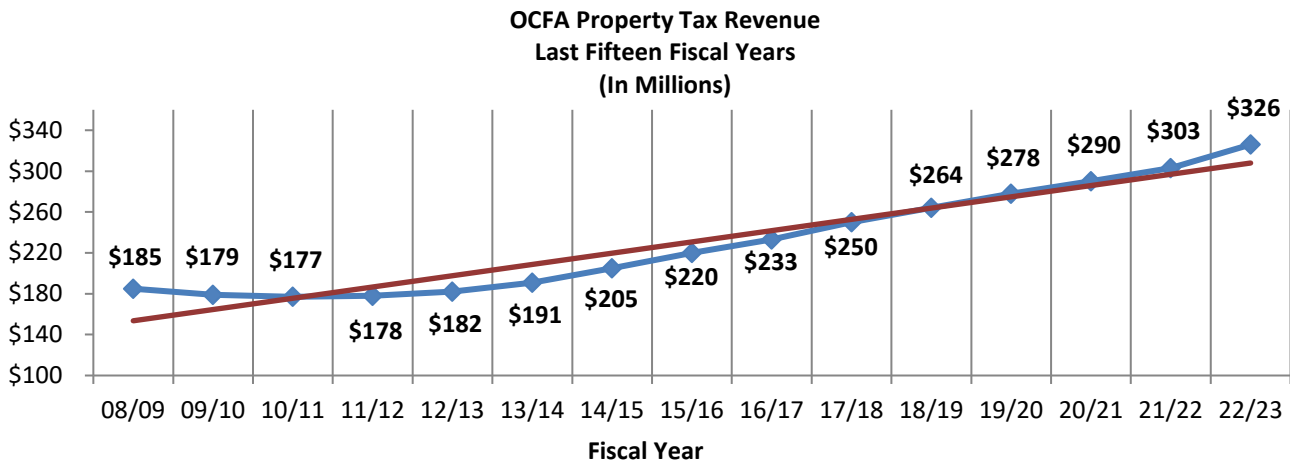
Income and Housing Affordability:

Households in Orange County have a median annual income of \$100,559, which exceeds state (\$84,907) and national (\$69,707) levels.⁸ However, the county has long experienced a high cost of living and a shortage of affordable housing for its residents. Salaries have not kept up with rising home prices and there has been insufficient stock of single-family and multi-family residences to meet demand.

The median price for all homes in Orange County was approximately \$1,020,000 in 2022, an increase of 12.4% over the prior year. The number of residential building permits issued in the last year has decreased by 13.2% – from 7,471 permits in 2021 to 6,483 permits in 2022. The lack of affordable housing is negatively impacting this sector of Orange County’s economy. The housing affordability index, which measures the percentage of families with the median income to qualify for a mortgage on a median-priced home, has declined from 78.3% in 2021 to 52.9% in 2022. However, it is anticipated that falling mortgage rates and the limited supply of homes available for sale in the county may lead to future stabilization of home prices.⁹

Property Taxes:

The most significant local economic factor impacting OCFA is Orange County’s housing market, including fluctuations in new construction activities and housing prices. Property taxes derived from these activities comprised 55.9% of OCFA’s total governmental funds revenues in Fiscal Year 2022/23. As previously described, home prices continue to rise. OCFA’s property tax revenues have steadily increased since the 2007 Great Recession, as shown in the chart below. The current median, single-family home price of \$1,020,000 well exceeds the pre-recession price peak of \$747,260 from April 2007.



Long-term Financial Planning

Since its formation in 1995, OCFA has been preparing multi-year projections of its revenues and expenditures. A firm of property tax consultants has been retained to assist in the projection of the OCFA’s single largest revenue source – property taxes. With these projections and a collection of conservative assumptions, OCFA forecasts its financial condition five years into the future. Various scenarios can be developed from the forecast to assess the impact of proposed or impending changes to the budget, the economy, or the underlying assumptions. As a result, this tool provides an early warning of potential financial difficulties. The consultant’s method of projecting property tax revenue is to increase the value of existing structures by the 2% constitutional maximum (if CPI is 2% or greater); increase values to account for re-sales; add in the value of any new development; account for assessment appeals and reassessments in a recession; and account for value restoration post-recession.

⁷ Chapman University, *Economic & Business Review*, June 2023, *Recession Still on the Horizon*

⁸ Department of Numbers, <https://deptofnumbers.com/income/california/orange-county>, 2021 Real Median Household Income

⁹ Chapman University, *Economic & Business Review*, June 2023, *Recessionary Forces Hit the County*; and Table 11 *Orange County Annual History and Forecasts: 2018-2023*

Relevant Financial Policies

The OCFA Board of Directors has adopted the following formal budgetary and fiscal policies:

Financial Stability Budget Policy: This policy is intended to guide OCFA budget actions toward maintaining long-term financial stability and to establish fund balance levels and annual funding targets for the General Fund and Capital Improvement Program (CIP). The policy also includes guidance on facilitating the accelerated payment of OCFA's unfunded liabilities for improved fiscal health.

Fiscal Health Plan: The purpose of this plan is to establish a framework to ensure an ongoing focus on fiscal health and a general process to ensure timely and appropriate response to adverse fiscal circumstances. This plan's cornerstones are strong fiscal policies and a comprehensive system for monitoring OCFA's budgetary performance. Financial indicators are monitored through frequent updates of OCFA's five-year financial forecast to evaluate the stability, strength, or weaknesses of OCFA's finances.

Investment Policy: This policy is updated annually to reflect changes in legislation and the changing needs of the OCFA. It specifies the types of investments allowed in the OCFA portfolio and the diversification and maturity requirements for investments.

Paydown of Unfunded Liabilities: Recognizing the potential long-term savings to OCFA, the Board has implemented several strategies to pay down its Unfunded Actuarial Accrued Liability (UAAL) for employee pensions and its long-term liability for the Retiree Medical Plan. Those strategies, known collectively as the "Snowball Plan," include additional annual payments toward the UAAL that are redirected to the Retiree Medical Plan upon reaching 85% funding.

Roles/Responsibilities/Authorities for the OCFA: This document identifies those roles and responsibilities that the Board has retained, as well as responsibilities that have been delegated. All authority rests with the Board unless it is delegated by statute or Board action. When delegated, these authorities are further defined by contracts, resolutions, policies, and other Board actions.

Accounts Receivable Write-off Policy for Uncollectible Accounts: This policy establishes the criteria and procedures for requesting uncollectible amounts to be written off.

Short-term Debt Policy: This policy establishes guidelines for managing the OCFA's cash flow position in a fiscally conservative manner through issuing short-term debt.

Local Debt Policy: This policy establishes guidelines for the issuance and management of debt financing for the acquisition, substantial refurbishment, replacement, or expansion of capital assets, or for the refunding, refinancing, or restructuring of debt to achieve debt service savings. The policy outlines accepted purposes of debt, as well as internal control procedures for the use of debt proceeds.

Emergency Appropriations Policy: This policy establishes guidelines for increasing appropriations in the event of extraordinary fire or emergency activity following the last Board meeting of the fiscal year.

Workers Compensation Funding Policy: In March 2002, OCFA implemented a workers' compensation self-insurance program. The Board has established required funding levels at 50% for outstanding losses and 50% for projected losses, as determined by an independent actuarial study.

Assigned Fund Balance Policy: This policy establishes the authority by which OCFA may set aside cumulative resources in fund balance for an intended future use.

Fund Balance Flow Assumptions Policy: This policy establishes the order of spending governmental fund balance categories, as defined by Governmental Accounting Standards Board (GASB) Statement No. 54.

Grants Management Policy: This policy establishes an overall framework for guiding OCFA's use and management of grant resources.

Capital Projects Fund Policy: This policy defines the types of allowable activities that may be accounted for in OCFA's capital projects funds, as defined by Governmental Accounting Standards Board (GASB) Statement No. 54.

Major Initiatives Expected to Affect Future Financial Position

Highlights of select initiatives that potentially impact OCFA's future financial position are described below.

Labor Negotiations for Expiring Memorandums of Understanding (MOU): OCFA has negotiated and implemented successor MOU's with all four of its labor groups that focus on OCFA's mission and the sustainability of services. MOU's with the Orange County Professional Firefighters Association and the Orange County Employees' Association were approved in March 2023 and April 2023, respectively. MOU's with the Chief Officers Association and Orange County Fire Authority Managers Association were both approved in June 2023.

OCFA Aircraft Replacement Review Process and Implementation: In March 2022, the Board of Directors approved OCFA's Aircraft Replacement Review and Work Plan (Review and Work Plan) with the intent to educate and inform policymakers on needs, options, costs, financing solutions, and recommendations pertaining to the disposition of obsolete aircraft and acquisition of replacement aircraft. The review process was completed in July 2022, with the Board directing staff to return two Federal Excess Property Program (FEPP) UH-1H Super Huey helicopters to the federal government and initiate the administrative actions to facilitate the purchase of two Sikorsky S-170 Type 1 helicopters. Approval to award a purchasing contract, approval of lease financing terms, and authorization of necessary budget adjustments was obtained in September 2022.

The \$57.9 million lease-purchase financing was completed in Fiscal Year 2022/23, and we anticipate delivery of the new helicopters by the end of calendar year 2023. Before the new aircraft are delivered to OCFA, they are being transformed from Blackhawk to Firehawk helicopters. This transformation results in a true multi-mission airframe with enhanced capabilities and safety, including digital cockpit upgrades, increased power margins, and the ability to deliver 1,000 gallons of water. The Firehawk helicopters also have a reconfigurable cabin that can accommodate up to twelve firefighting crew members and their equipment during emergency operations. The new aircraft will join OCFA's two Bell 412 helicopters, providing OCFA with four operational helicopters for the first time since 2020. With their advanced technology and increased carrying capacity, OCFA's investment in the new Firehawk helicopters will elevate OCFA's operational effectiveness.

Accelerated Pay-Down of Pension Liability with the Orange County Employees Retirement System: OCFA continues its policy efforts and Board actions to reduce its unfunded liabilities, thereby improving the sustainability of services. In September 2013, the Board approved several strategies to accelerate funding OCFA's Unfunded Actuarial Accrued Liability (UAAL) with the Orange County Employees Retirement System (OCERS). Those strategies, referred to as the "Snowball Plan," currently include the following:

- (A) Use unencumbered fund balance available at the close of each fiscal year to make annual lump sum payments, estimated at an average amount of \$3 million annually;
- (B) Include savings from reduced retirement rates resulting from the implementation of the Public Employees' Pension Reform Act;
- (C) Budget an additional \$1 million beginning in Fiscal Year 2016/17, and increase by \$2 million each subsequent fiscal year until reaching an annual amount of \$15 million;
- (D) Contribute \$1 million annually for five years, beginning in Fiscal Year 2016/17, from surplus fund balance available from the General Fund's fund balance assignment for workers' compensation;
- (E) Contribute 50% of General Fund surplus, if any, annually beginning in Fiscal Year 2017/18 in accordance with the Financial Stability Budget Policy; and
- (F) Contribute \$500,000 annually beginning in Fiscal Year 2020/21 until the liability is 85% funded in accordance with the Irvine Settlement Agreement.

In November 2016, the Board of Directors also authorized modifications of the "Snowball Plan" to (1) alter the funding target from 100% to 85%; and (2) to redirect expedited payments from the UAAL to the OCFA's unfunded liability for the Retiree Medical Plan after achieving that 85% target. In August 2019, OCFA formalized its commitment to its "Snowball Plan" with the 4th Amendment to the Joint Powers Authority Agreement, which requires the Board to appropriate funds to its budget annually consistent with, or greater than, the budgetary payments called for in the "Snowball Plan," except for instances of fiscal hardship defined as a substantial reduction in OCFA's anticipated revenues and/or a significant increase in anticipated expenses that are beyond the reasonable control of the Board. As of December 2020, OCFA achieved 87.7% funding of its UAAL. Thus, starting in Fiscal Year 2021/22, OCFA began redirecting its cash "Snowball Plan" payments to the Retiree Medical Plan.

OCFA has been making additional payments toward its UAAL annually since Fiscal Year 2013/14, with additional payments made during Fiscal Year 2022/23 totaling \$30.5 million, with \$12.7 million directed to the pension plan UAAL and \$17.8 million directed to the Retiree Medical Plan. The Board of Directors is updated annually on the status of the pay-down plan. As of September 2023, estimates from the OCERS actuary indicated that making accelerated payments has saved OCFA \$76.7 million in interest, and OCFA is expected to achieve 100% funding of its UAAL by December 31, 2031. Below is a summary of additional payments made under the “Snowball Plan” since Fiscal Year 2013/14 toward the UAAL and the Retiree Medical Plan.

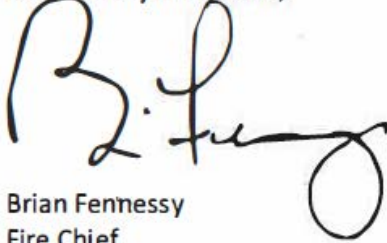
	Part A	Part B	Part C	Part D	Part E	Part F			
Fiscal Year Ended June 30	Available Fund Balance	Annual IPEPRA Savings	Annual Budget Increases	Budget Increases from Workers Comp Assignment	50% of General Fund Surplus	Irvine Settlement Agreement	Total Snowball Plan Payments	Other UAAL Rate Savings Payments	Total Additional Payments
2014	\$ 3,000,000	\$ 2,235,753	\$ -	\$ -	\$ -	\$ -	\$ 5,235,753	\$ -	\$ 5,235,753
2015	21,290,238	86,061	-	-	-	-	21,376,299	-	21,376,299
2016	12,609,380	2,802,122	-	-	-	-	15,411,502	-	15,411,502
2017	9,814,477	1,653,114	1,000,000	1,000,000	-	-	13,467,591	3,128,369	16,595,960
2018	13,174,516	1,886,420	3,000,000	1,000,000	870,041	-	19,930,977	3,164,819	23,095,796
2019	10,000,000	3,167,397	5,000,000	1,000,000	-	-	19,167,397	3,665,549	22,832,946
2020	4,030,172	1,648,658	7,000,000	1,000,000	-	-	13,678,830	7,324,607	21,003,437
2021	3,000,000	2,368,859	9,000,000	1,000,000	-	500,000	15,868,859	11,092,090	26,960,949
2022	-	-	-	-	-	-	-	10,941,312	10,941,312
2023	-	-	-	-	-	-	-	12,758,836	12,758,836
UAAL (Pension)	76,918,783	15,848,384	25,000,000	5,000,000	870,041	500,000	124,137,208	52,075,582	176,212,790
2022	-	3,279,280	11,000,000	-	-	-	14,279,280	-	14,279,280
2023	-	4,787,217	13,000,000	-	-	-	17,787,217	-	17,787,217
Retiree Medical	-	8,066,497	24,000,000	-	-	-	32,066,497	-	32,066,497
Total	\$76,918,783	\$23,914,881	\$49,000,000	\$5,000,000	\$870,041	\$500,000	\$156,203,705	\$52,075,582	\$208,279,287

Awards and Acknowledgments

The Government Finance Officers Association (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the OCFA for its Fiscal Year 2021/22 Annual Comprehensive Financial Report (ACFR), marking the 25th consecutive year OCFA has received this prestigious award. In order to be awarded this certificate, a government must publish an easily readable and efficiently organized ACFR that satisfies both GAAP and applicable legal requirements. The certificate is valid for a period of one year. We believe our Fiscal Year 2022/23 ACFR continues to meet the program’s requirements, and we are submitting it to the GFOA to determine its eligibility for this year’s award.

The timely preparation of the Annual Comprehensive Financial Report was made possible by the dedicated efforts of the management and staff of the Finance Division. We acknowledge the support and direction provided to OCFA staff by the accounting firm of Lance, Soll & Lunghard, LLP. We would also like to express our appreciation to the Board of Directors and Budget and Finance Committee for their leadership and support in planning and conducting the financial operations of the OCFA responsibly and progressively.

Respectfully submitted,

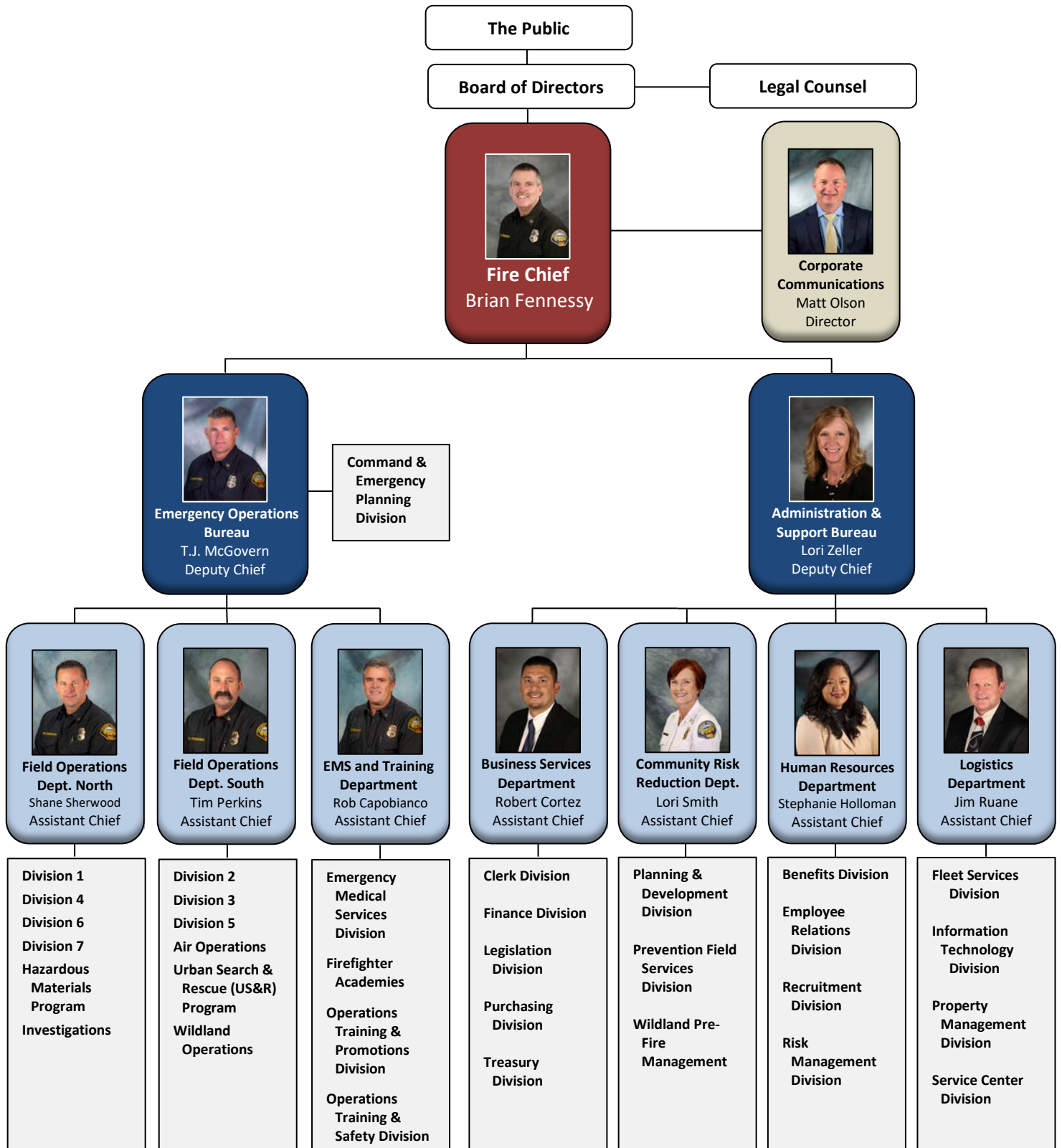


Brian Fennessy
Fire Chief



Robert Cortez
Assistant Chief, Business Services Department

ORANGE COUNTY FIRE AUTHORITY
Organization Chart
As of June 30, 2023



ORANGE COUNTY FIRE AUTHORITY
Management Staff and Appointed Officials
As of June 30, 2023

Executive Management

Fire Chief

Brian Fennessy

Deputy Chiefs

T.J. McGovern	Emergency Operations
Lori Zeller	Administration & Support

Assistant Chiefs

Shane Sherwood	Field Operations North
Tim Perkins	Field Operations South
Rob Capobianco	EMS and Training
Robert Cortez	Business Services
Lori Smith	Community Risk Reduction
Stephanie Holloman	Human Resources
Jim Ruane	Logistics

Directors

Matt Olson	Corporate Communications
------------	--------------------------

Appointed Officials

Patricia Jakubiak	Treasurer
Robert Cortez	Auditor (Interim)
Maria D. Huizar	Clerk of the Authority

Legal Counsel

Woodruff & Smart	General Counsel
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**ORANGE COUNTY FIRE AUTHORITY
Organization of Board of Directors
As of June 30, 2023**

Orange County Fire Authority's Board of Directors has twenty-five members as of June 30, 2023. Twenty-three of the members represent member cities and two members represent the county unincorporated area. The Board of Directors meets monthly. Following are descriptions of each standing committee that has been established by the Board of Directors:

The **Executive Committee** conducts all business of the OCFA, with the exception of policy issues, including labor relations, budget issues, and other matters specifically retained by the Board. The Executive Committee consists of no more than nine members of the Board and includes the following designated positions: the Chair and Vice Chair of the Board, the immediate past Chair of the Board, and the Chair of the Budget and Finance Committee. In addition, the Chair appoints five at-large members, subject to the approval of the Board. At least one member of the County Board of Supervisors serves on this committee. In addition, the ratio of committee members representing cash contract cities to the total committee membership is as close as reasonably possible to the ratio of the number of cash contract cities to total member agencies. The Chair of the City Managers Technical Advisory Committee serves as an ex-officio, non-voting member of the Executive Committee.

The **Budget and Finance Committee** advises staff and makes recommendations to the Board on matters related to financial and budget policies, development of budgets for the General Fund and capital expenditures, assignment of fund balances, budget balancing measures, evaluation and development of plans to meet long-term financing needs, investment oversight, and purchasing policies. The Budget and Finance Committee is also designated to serve as OCFA's audit oversight committee. The Board Chair makes appointments to the committee on an annual or as-needed basis and in such a manner as to achieve, as close as reasonably possible, a balance between the number of members representing structural fire fund and cash contract cities. The Board, through the Board Chair, appoints one City Manager to serve as an ex-officio, non-voting member of the committee.

The **Human Resources Committee** advises OCFA staff and makes recommendations to the Board on matters regarding human resources policies; job class specifications; compensation programs; benefit changes and renewals; labor negotiations; staff training, development and recognition programs; succession planning; risk management and workers' compensation policies; and development of management/performance evaluation and information systems. The committee consists of no more than seven members of the Board, all of which are appointed by the Board Chair. Appointments to the committee are made in such a manner as to achieve, as close as reasonably possible, a balance between the number of members representing structural fire fund and cash contract cities.

The **Legislative and Public Affairs Committee** advises the Executive Committee and Board on matters related to public outreach and legislative affairs at the local, state, and federal levels; reviews and provides recommendations on legislative and regulatory matters that may impact OCFA; receives status reports from OCFA's legislative advocates and staff; reviews and provides recommendations pertaining to OCFA's public outreach, branding, and communications activities; and evaluates opportunities to enhance OCFA public relations. The committee consists of no more than seven members of the Board, all of which are appointed by the Board Chair. Appointments to the committee are made in such a manner as to achieve, as close as reasonably possible, a balance between the number of members representing structural fire fund and cash contract cities.

The **Operations Committee** advises the Executive Committee and Board on high level policy decisions related to the operations of the OCFA. The committee reviews plans for future needs of the OCFA, explores alternatives to services, and makes recommendations to support operations. The committee is not intended to get into the day-to-day operations of OCFA, which is the responsibility of the Fire Chief and Executive Management. The committee consists of no more than seven members of the Board, all of which are appointed by the Board Chair. Appointments to the committee are made in such a manner as to achieve, as close as reasonably possible, a balance between the number of members representing structural fire fund and cash contract cities.



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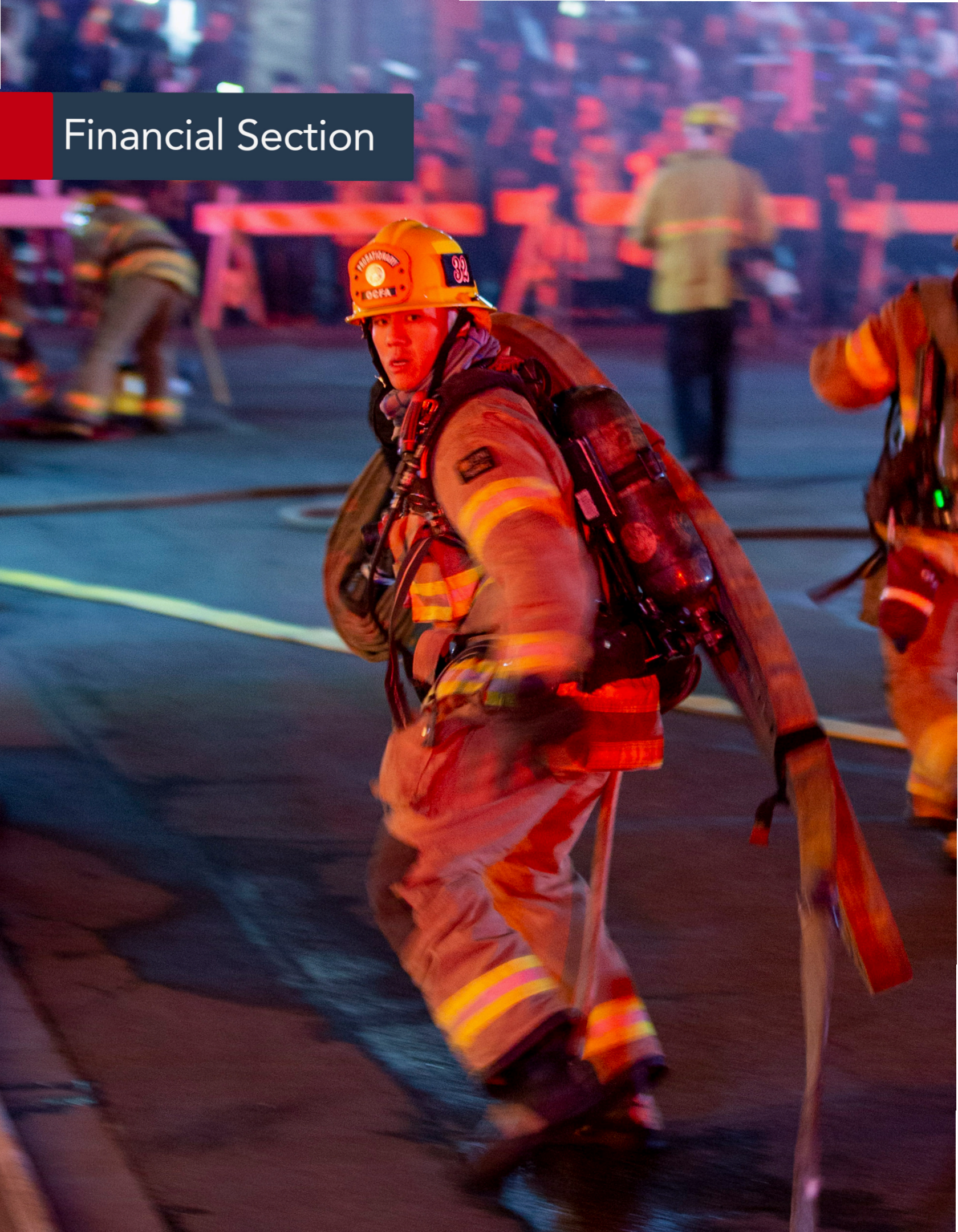
For its Annual Comprehensive
Financial Report
For the Fiscal Year Ended

June 30, 2022

Christopher P. Morill

Executive Director/CEO

Financial Section





INDEPENDENT AUDITOR'S REPORT

To the Board of Directors
Orange County Fire Authority
Irvine, California

Report on the Audit of the Financial Statements

Opinions

We have audited the accompanying financial statements of the governmental activities, the discretely presented component unit, each major fund, the aggregate remaining fund information, and the budgetary comparison statement for the general fund of Orange County Fire Authority, (the "Authority"), as of and for the year ended June 30, 2023, and the related notes to the financial statements, which collectively comprise the Authority's basic financial statements as listed in the table of contents.

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the governmental activities, the discretely presented component unit, each major fund, the aggregate remaining fund information, and the budgetary comparison statement for the general fund of the Authority, as of June 30, 2023, and the respective changes in financial position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinions

We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the Authority and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Responsibilities of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America, and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the Authority's ability to continue as a going concern for twelve months beyond the financial statement date, including any currently known information that may raise substantial doubt shortly thereafter.



To the Board of Directors
Orange County Fire Authority
Irvine, California

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinions. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with generally accepted auditing standards and *Government Auditing Standards* will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with generally accepted auditing standards and *Government Auditing Standards*, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Authority's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the Authority's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that we identified during the audit.

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and the required pension and other postemployment benefits schedules, as listed on the table of contents, presented to supplement the basic financial statements. Such information is the responsibility of management and, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.



To the Board of Directors
Orange County Fire Authority
Irvine, California

Supplementary Information

Our audit was conducted for the purpose of forming opinions on the combining and individual fund statements and schedules (supplementary information) that collectively comprise the Authority's basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the supplementary information is fairly stated, in all material respects, in relation to the basic financial statements as a whole.

Other Information

Management is responsible for the other information included in the annual report. The other information comprises the introductory and statistical sections but does not include the basic financial statements and our auditor's report thereon. Our opinions on the basic financial statements do not cover the other information, and we do not express an opinion or any form of assurance thereon.

In connection with our audit of the basic financial statements, our responsibility is to read the other information and consider whether a material inconsistency exists between the other information and the basic financial statements, or the other information otherwise appears to be materially misstated. If, based on the work performed, we conclude that an uncorrected material misstatement of the other information exists, we are required to describe it in our report.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated October 9, 2023, on our consideration of the Authority's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Authority's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering Authority's internal control over financial reporting and compliance.

A handwritten signature in cursive script that reads "Lance, Soll & Lughard, LLP".

Brea, California
October 9, 2023

Orange County Fire Authority



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Management's Discussion and Analysis



Hand Crew Graduation
November 2, 2022

ORANGE COUNTY FIRE AUTHORITY
Management’s Discussion and Analysis
Year ended June 30, 2023

As management of the Orange County Fire Authority (OCFA), we offer readers of the financial statements this overview and analysis of OCFA’s financial activities for the fiscal year ended June 30, 2023.

Financial Highlights

Governmental Activities: OCFA’s assets and deferred outflows of resources exceeded liabilities and deferred inflows of resources by \$62,396,905 at June 30, 2023. Net position consisted of net investment in capital assets totaling \$209,059,816; amounts restricted for capital and other projects totaling \$42,216,444; and an unrestricted deficit totaling \$188,879,355. Net position increased by \$109,203,330 as the result of current year operations.

Governmental Funds: OCFA’s governmental fund balances totaled \$309,953,173 at June 30, 2023, an increase of \$65,958,817 over the prior fiscal year as a result of current year operations. Approximately 8.6% was available for funding future operational needs.

General Fund: Fund balance in the General Fund was categorized as follows at June 30, 2023:

➤	Nonspendable	\$ 32,542,882
➤	Restricted	12,044,728
➤	Committed	3,519,541
➤	Assigned	154,226,631
➤	Unassigned	<u>26,725,234</u>
	Fund balance of the General Fund as of June 30, 2023	<u>\$229,059,016</u>

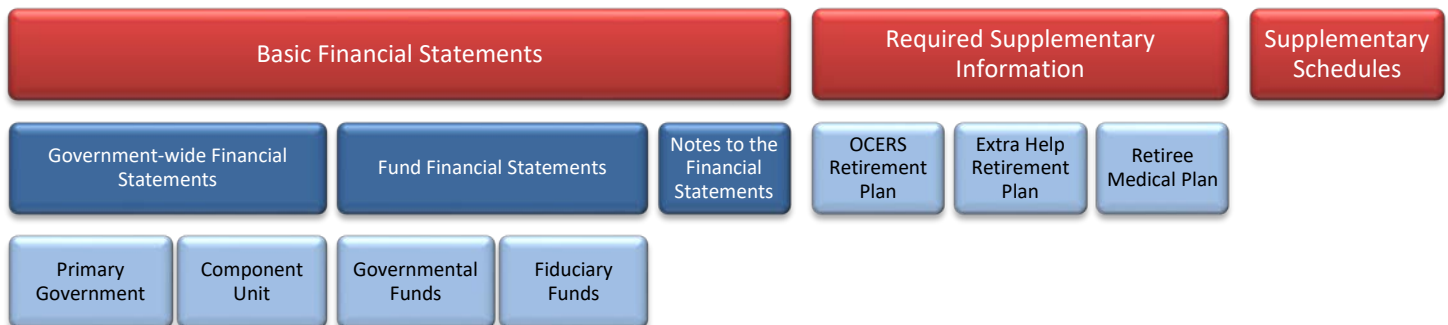
Events with Significant Financial Impact:

Funding the Retiree Medical Plan: As of December 2020, OCFA achieved 87.7% funding of its Unfunded Actuarial Accrued Liability (UAAL) with the Orange County Employees Retirement System (OCERS). Thus, during Fiscal Year 2022/23, OCFA redirected \$17,787,217 in cash “Snowball Plan” payments to the Retiree Medical Plan in accordance with the 4th Amendment to the Joint Powers Authority Agreement.

Debt Issuance: During Fiscal Year 2022/23, OCFA entered into a Master Equipment Lease/Purchase Agreement in the amount of \$57,882,120 for the purpose of acquiring and installing two Sikorsky S-70M Type 1 Firehawk helicopters and related equipment, as well as for related training. The helicopters were in the process of being constructed as of June 30, 2023.

Overview of the Financial Statements

This discussion and analysis serves as an introduction to OCFA’s basic financial statements. The basic financial statements include: (1) government-wide financial statements, (2) fund financial statements, and (3) notes to the financial statements. In addition, the financial section of this report contains required supplementary information and supplementary schedules.



Government-wide Financial Statements: The government-wide financial statements provide a broad overview of OCFA’s and the OCFA Foundation’s finances in a manner like private-sector business. Public safety activities are reported as governmental activities, because they are principally supported by taxes and intergovernmental revenues. The government-wide financial statements can be found on pages 25-26.

Statement of Net Position: The statement of net position presents information on assets, deferred outflows of resources, liabilities, and deferred inflows of resources. The differences between these items are reported as “net position.” Over time, increases or decreases in net position serve as an indicator of whether the financial position is improving or deteriorating.

Statement of Activities: The statement of activities shows how net position changed during the most recent fiscal year. All changes in net position are reported as soon as the underlying event giving rise to the change occurs, regardless of the timing of related cash flows.

Fund Financial Statements: A fund is a grouping of related accounts used to maintain control over resources that have been segregated for specific activities. Like other state and local governments, OCFA uses fund accounting to ensure and demonstrate compliance with finance-related legal requirements. OCFA’s funds can be divided into two categories – governmental and fiduciary.

Governmental Funds: Governmental funds account for essentially the same functions as those reported in the government-wide financial statements as “governmental activities.” However, governmental fund financial statements focus on near-term inflows and outflows of spendable resources, as well as on balances of spendable resources available at the end of the fiscal year. This information is useful in evaluating a government’s near-term financing requirements. Because the focus of government funds is narrower than that of the government-wide financial statements, it is useful to compare the information presented for governmental funds with similar information presented for governmental activities in the government-wide financial statements. By doing so, readers may better understand the long-term impact of near-term financial decisions. Reconciliations are provided to facilitate this comparison for the governmental funds balance sheet and the governmental funds statement of revenues, expenditures and changes in fund balances.

OCFA reports four governmental funds. Information for each governmental fund is presented separately in the fund financial statements, because OCFA has elected to classify all governmental funds as major funds. OCFA adopts an annual appropriated budget for each governmental fund. Budgetary comparison statements or schedules are provided for the governmental funds to demonstrate compliance with this budget. The basic governmental fund financial statements can be found on pages 27-32.

Fiduciary Funds: Fiduciary funds account for resources held for the benefit of parties outside the government. Fiduciary funds are not reflected in the government-wide financial statements because the resources of those funds are not available to support OCFA’s own programs. Combined basic fiduciary fund financial statements can be found on pages 33-34.

Notes to the Financial Statements and Required Supplementary Information (RSI): The notes to the financial statements and RSI provide additional information that is essential to fully understanding the data provided in the government-wide and fund financial statements, including information about OCFA’s retirement and other postemployment benefit plans. RSI, while not a part of the basic financial statements, is considered to be an essential part of the financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. The notes to the financial statements can be found on pages 35-87 and RSI can be found on pages 89-102.

Supplementary Schedules: The budgetary schedules referred to earlier in connection with governmental funds are presented in the supplementary schedules section. Combining and individual fund schedules can be found on pages 103-117.

Government-wide Financial Analysis

Net Position: As noted earlier, the change in net position over time serves as a useful indicator of a government’s financial position. In the case of OCFA, net position totaled \$62,396,905 at the end of the most recent fiscal year, a 233.3% change from the prior fiscal year. Following is a summary of OCFA’s net position as of June 30, 2023 and 2022:

ORANGE COUNTY FIRE AUTHORITY's Net Position				
<u>Governmental Activities</u>	<u>June 30, 2023</u>	<u>June 30, 2022</u>	<u>Increase (Decrease)</u>	
			<u>Amount</u>	<u>%</u>
Assets:				
Current and other assets	\$ 311,355,707	\$ 251,101,071	\$ 60,254,636	24.0%
Restricted assets	19,896,244	5,221,012	14,675,232	281.1%
Proportionate share net pension asset	-	104,907,413	(104,907,413)	-100.0%
Capital assets, net	<u>265,329,787</u>	<u>218,977,442</u>	<u>46,352,345</u>	21.2%
Total assets	<u>596,581,738</u>	<u>580,206,938</u>	<u>16,374,800</u>	2.8%
Deferred outflows of resources:				
Related to pensions/OPEB	<u>268,112,178</u>	<u>131,162,798</u>	<u>136,949,380</u>	104.4%
Total deferred outflows of resources	<u>268,112,178</u>	<u>131,162,798</u>	<u>136,949,380</u>	104.4%
Liabilities:				
Long-term liabilities	619,934,017	255,021,486	364,912,531	143.1%
Other liabilities	<u>35,046,192</u>	<u>26,083,569</u>	<u>8,962,623</u>	34.4%
Total liabilities	<u>654,980,209</u>	<u>281,105,055</u>	<u>373,875,154</u>	133.0%
Deferred inflows of resources:				
Related to leases	839,179	800,802	38,377	4.8%
Related to pensions/OPEB	<u>146,477,623</u>	<u>476,270,304</u>	<u>(329,792,681)</u>	-69.2%
Total deferred inflows of resources	<u>147,316,802</u>	<u>477,071,106</u>	<u>(329,754,304)</u>	-69.1%
Net position:				
Net investment in capital assets	209,059,816	214,082,791	(5,022,975)	-2.3%
Restricted for capital projects	30,194,753	634,157	29,560,596	4661.4%
Restricted for augmentation and upstaffing activities	1,581,979	1,683,073	(101,094)	-6.0%
Restricted for greenhouse gas reduction activities	3,123,572	2,557,259	566,313	22.1%
Restricted for Section 115 pension trust	7,316,140	5,224,229	2,091,911	40.0%
Unrestricted	<u>(188,879,355)</u>	<u>(270,987,934)</u>	<u>82,108,579</u>	30.3%
Total net position (deficit)	<u>\$ 62,396,905</u>	<u>\$ (46,806,425)</u>	<u>\$ 109,203,330</u>	233.3%

Net Investment in Capital Assets: At June 30, 2023, the largest portion of OCFA's net position is its net investment in capital assets. OCFA uses capital assets to provide services to citizens; consequently, these assets are not available for future spending. Repayment of any debt issued to acquire capital assets must be from other sources. OCFA cannot sell the assets to obtain funding.

Net Position Restricted for Capital Projects and Other Purposes: An additional portion of OCFA's net position includes resources that are subject to external restrictions on how they may be used. As of June 30, 2023, restricted net position relates to California Department of Forestry (CALFIRE) contract revenues that are legally restricted for fire station development; state funding restricted for augmentation, upstaffing, and greenhouse gas reduction activities; amounts set aside in a Section 115 pension trust per contractual requirements; and unspent debt proceeds from the 2022 helicopter lease purchase agreement.

Unrestricted Net Position: The remaining balance of net position is considered unrestricted. A positive unrestricted balance would represent amounts that may be used to meet OCFA's ongoing obligations to citizens and creditors. A deficit unrestricted balance, as reported on June 30, 2023, and June 30, 2022, indicates that OCFA's obligations currently exceed its resources. As of June 30, 2023, this deficit is due to the implementation of Governmental Accounting Standards Board (GASB) Statements No. 68 and No. 75 during Fiscal Year 2014/15 and Fiscal Year 2017/18, respectively. These statements required OCFA to begin reporting its net pension liabilities and the full amount of its net other postemployment benefit liabilities (OPEB) on the Statement of Net Position.

Changes in Net Position: Net position of OCFA's governmental activities increased by \$109,203,330 during the most recent fiscal year, an indication that OCFA's financial position has improved.

Governmental activities are divided into two categories – program and general. Program revenues are those derived directly from a government program itself, or from parties outside the government's taxpayers, and thus reduce the net cost of providing that program. Any program expenses that are not offset by program revenues must essentially be financed by general revenues, such as taxes and investment earnings. Following is a summary of the changes in OCFA's net position for Fiscal Year 2022/23 and Fiscal Year 2021/22, followed by explanations for the increases or decreases in revenues and expenses between fiscal years.

ORANGE COUNTY FIRE AUTHORITY's Changes in Net Position

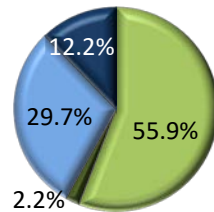
Governmental Activities	June 30, 2023	June 30, 2022	Increase (Decrease)	
			Amount	%
Program revenues:				
Charges for services	\$ 173,110,122	\$ 174,072,175	\$ (962,053)	-0.6%
Operating grants and contributions	52,867,337	38,289,243	14,578,094	38.1%
Capital grants and contributions	18,386,450	401,221	17,985,229	4482.6%
Total program revenues	244,363,909	212,762,639	31,601,270	14.9%
General revenues:				
Property taxes	326,138,528	302,861,759	23,276,769	7.7%
Investment income	5,388,518	(4,799,952)	10,188,470	212.3%
Gain on disposal of capital assets	-	17,777	(17,777)	-100.0%
Miscellaneous	7,623,310	4,020,895	3,602,415	89.6%
Total general revenues	339,150,356	302,100,479	37,049,877	12.3%
Total revenues	583,514,265	514,863,118	68,651,147	13.3%
Public safety expenses:				
Salaries and benefits	346,185,496	249,802,878	96,382,618	38.6%
Services and supplies	101,221,979	93,296,815	7,925,164	8.5%
Depreciation and amortization	25,712,134	13,232,063	12,480,071	94.3%
Total program expenses	473,119,609	356,331,756	116,787,853	32.8%
Interest on long-term debt	1,191,326	-	1,191,326	n/a
Total expenses	474,310,935	356,331,756	117,979,179	33.1%
Change in net position	109,203,330	158,531,362	(49,328,032)	
Net position (deficit), beginning of year	(46,806,425)	(207,511,949)	160,705,524	
Prior period adjustment	-	2,174,162	(2,174,162)	
Net position (deficit), end of year	\$ 62,396,905	\$ (46,806,425)	\$109,203,330	233.3%

Revenues of Governmental Activities - By Source

Fiscal Year 2022/23

Program Revenues, 41.9%

General Revenues, 58.1%



- Property Taxes
- Other General Revenues
- Charges for Services
- Operating and Capital Grants and Contributions

Program Revenues: Program revenues, which totaled \$244,363,909 for Fiscal Year 2022/23 and accounted for 41.9% of total revenues, increased by \$31,601,270 over the prior fiscal year.

Charges for Services include amounts received from those who purchase, use, or directly benefit from or are affected by a program. These revenues decreased by \$962,053 from the prior fiscal year.

Amount (Rounded)	Reason for Increase / Decrease
-\$8,820,000	Reimbursements for state and federal "assistance by hire" incidents vary depending on emergency response activity. State reimbursements decreased in Fiscal Year 2022/23 by \$7,970,000. OCFA responded to forty-six state incidents in the current fiscal year as compared to fifty-nine in the prior fiscal year. Significant fire incidents in Fiscal Year 2021/22 included the out-of-county Dixie and Caldor fires. Federal responses to national emergency incidents and for the Fire Management Assistance Grant (FMAG) program decreased in Fiscal Year 2022/23 by \$850,000. Activity was higher in the prior fiscal year due to the in-county Coastal fire and the out-of-county Jim fire.

(Continued)

(Continued)

Amount (Rounded)	Reason for Increase / Decrease
+\$6,345,000	OCFA contracts to provide emergency response services to its cash contract cities and other government agencies. Revenues from cash contract cities increased by \$2,955,000 during Fiscal Year 2022/23 based on contractual terms of the Joint Powers Agreement. Other changes in Fiscal Year 2022/23 included contracts with CALFIRE for protection of State Responsibility Area (SRA) lands (+\$3,420,000) and with John Wayne Airport for Airport Rescue Firefighting (ARFF) Services (-\$30,000).
+\$1,290,000	Fee-based fire prevention revenues for inspections, planning and development, and related late fees increased in Fiscal Year 2022/23 primarily due implementation of a new base fee for inspections.
+\$290,000	Ambulance transport reimbursements increased in Fiscal Year 2022/23 due to an increase in transport activities as compared to the prior fiscal year.
-\$70,000	Funding for OCFA's response to the COVID-19 pandemic decreased in Fiscal Year 2022/23. During the prior fiscal year, OCFA recognized a public assistance reimbursement claim totaling \$310,000 from the Federal Emergency Management Agency (FEMA) and \$60,000 for the Operation Independence vaccine distribution initiative funded through the County of Orange. During the current fiscal year, \$300,000 in FEMA revenue was recognized.
-\$965,000	Program Revenues: Charges for Services – Net Decrease

Operating Grants and Contributions include grants, contributions, donations, and similar items that are restricted to one or more specific program. These revenues increased by \$14,578,094 over the prior fiscal year.

Amount (Rounded)	Reason for Increase / Decrease
+\$7,625,000	In both the current and prior fiscal years, OCFA received donations from Southern California Edison (SCE) to support the Quick Reaction Force (QRF), a seasonal wildland air operations program. Current fiscal year revenues are higher because the program operated for the entire fiscal year (365 days), as compared to only 171 combined days in the prior fiscal year.
+\$6,990,000	During Fiscal Year 2022/23, OCFA received \$16.0 million in state revenue to fund the Fire Integrated Real-Time Intelligence System (FIRIS) program in support of the wildfire season. This was an increase over the \$9.0 million in state funding received for the same program in the prior fiscal year. The increase in revenue reimbursements correlated with OCFA's rising costs to operate the program, including increases to lease fixed wing aircraft (+\$4.6 million) and for air tactical ground support (+\$1.9 million).
+\$520,000	Federal and state operating grants increased in Fiscal Year 2022/23 since OCFA incurred more reimbursable costs for certain grants, including the ongoing Urban Search & Rescue program.
-\$555,000	Net changes in other operating grants and contributions decreased primarily due to state funding used for greenhouse gas reduction activities (-\$460,000); state funding for a Western Region Multi-Task Force exercise (MOBEX Drill) (-\$320,000); state grant funding for vegetation management (+\$175,000); and projects eligible for reimbursement from the California Firefighter Joint Apprenticeship Committee (+\$50,000).
+\$14,580,000	Program Revenues: Operating Grants and Contributions – Net Increase

Capital Grants and Contributions include grants, contributions, donations, and similar items that are restricted to one or more specific capital-related programs. These revenues increased by \$17,985,229 over the prior fiscal year.

Amount (Rounded)	Reason for Increase / Decrease
+\$17,335,000	Federal and state grants and other funding sources received for capital-related activities increased in Fiscal Year 2022/23. OCFA received \$16,950,000 in state funding for the construction of a new hand crew fire station. In addition, cost-reimbursement based grants were higher in Fiscal Year 2022/23 for fuel reduction equipment (+\$230,000), an education trailer (+\$150,000), and a mobile helicopter dip tank (+\$5,000).
+\$650,000	Revenues from developers increased per the terms of various Secured Fire Protection Agreements. Contributions varied between the prior and current year because of construction projects in the cities of Cypress, Lake Forest, and Irvine. In addition, during Fiscal Year 2022/23, OCFA received a developer fee reimbursement relating to a new type 1 engine assigned to Fire Station No. 67 (Rancho Mission Viejo).
+\$17,985,000	Program Revenues: Capital Grants and Contributions – Net Increase

General Revenues: General revenues, which totaled \$339,150,356 for Fiscal Year 2022/23 and accounted for 58.1% of total revenues, increased by \$37,049,877 over the prior fiscal year.

Amount (Rounded)	Reason for Increase / Decrease																												
+\$23,275,000	Property taxes increased by \$23,275,000 over the prior fiscal year primarily due to increases in secured property taxes. Secured property taxes increased by 5.9%, which is consistent with a corresponding 5.8% increase in the assessed property values for jurisdictions within OCFA’s structural fire fund.																												
+\$10,185,000	Investment income increased by \$10,185,000. OCFA’s year-to-date effective rate of return on its investment portfolio was 2.27% at June 30, 2023, as compared to 0.46% at June 30, 2022, generating an increase to overall portfolio earnings. OCFA adjusts its investments to market value as of June 30 each year. This resulted in an overall investment loss in Fiscal Year 2022/23, but generated an increase in investment income as compared to the prior fiscal year’s larger market value loss. The market value adjustment is a “paper only” transaction since OCFA typically holds its investments to maturity. These and other components of investment income are summarized below: <table border="1" style="margin-left: 40px;"> <thead> <tr> <th></th> <th>FY 2022/23</th> <th>FY 2021/22</th> <th>Increase (Decrease)</th> </tr> </thead> <tbody> <tr> <td>Portfolio earnings</td> <td>\$4,607,735</td> <td>\$ 745,631</td> <td>\$ 3,862,104</td> </tr> <tr> <td>Market value gain (loss)</td> <td>(179,777)</td> <td>(5,775,499)</td> <td>5,595,722</td> </tr> <tr> <td>Interest on property taxes</td> <td>403,825</td> <td>78,953</td> <td>324,872</td> </tr> <tr> <td>Section 115 pension trust</td> <td>154,802</td> <td>77,794</td> <td>77,008</td> </tr> <tr> <td>Helicopter debt escrow account</td> <td>324,428</td> <td>-</td> <td>324,428</td> </tr> <tr> <td>Total investment income</td> <td>\$5,311,013</td> <td>\$(4,873,121)</td> <td>\$10,184,134</td> </tr> </tbody> </table>		FY 2022/23	FY 2021/22	Increase (Decrease)	Portfolio earnings	\$4,607,735	\$ 745,631	\$ 3,862,104	Market value gain (loss)	(179,777)	(5,775,499)	5,595,722	Interest on property taxes	403,825	78,953	324,872	Section 115 pension trust	154,802	77,794	77,008	Helicopter debt escrow account	324,428	-	324,428	Total investment income	\$5,311,013	\$(4,873,121)	\$10,184,134
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Total investment income	\$5,311,013	\$(4,873,121)	\$10,184,134																										
+\$3,590,000	Miscellaneous and other revenues increased primarily due to amounts received from the Orange County Professional Firefighters Association IAFF Local 3631 in connection with the contract governing OCFA’s contributions to the firefighter medical trust.																												
+\$37,050,000	General Revenues – Net Increase																												



Public Safety Expenses: Total public safety expenses increased by \$116,787,853 from the prior fiscal year.

Amount (Rounded)	Reason for Increase / Decrease
+\$1,590,000	Reasons for increases and decreases to the following categories of salaries and benefits are further explained in the Major Governmental Funds – General Fund portion of this Management’s Discussion and Analysis (see page 14): regular pay (+\$3,525,000); overtime (-\$3,045,000); health insurance (+\$900,000); other pay (+\$755,000); and vacation and sick leave payouts (-\$545,000).
+\$96,350,000	Retirement contributions remitted to the Orange County Employees Retirement System (OCERS) decreased by \$9,350,000. Reasons for the decrease in actual plan contributions are further explained in the Major Governmental Funds – General Fund portion of this Management’s Discussion and Analysis (see page 14). In addition, under the requirements of GASB Statement No. 68, the amount of pension expense recognized during Fiscal Year 2022/23 to fully capture OCFA’s share of the net pension liability in its governmental activities was \$105,700,000 more than the prior fiscal year.
-\$3,050,000	Employer contributions to the Retiree Medical Plan increased by \$8,550,000. Reasons for the increase in actual plan contributions are further explained in the Major Governmental Funds – General Fund portion of this Management’s Discussion and Analysis (see page 14). In addition, under the requirements of GASB Statement No. 75, the amount of OPEB expense recognized during Fiscal Year 2022/23 in order to fully capture OCFA’s net OPEB liability in its governmental activities was \$11,600,000 less than the prior fiscal year.

(Continued)

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Amount (Rounded)	Reason for Increase / Decrease																
+\$1,495,000	The net change in long-term liabilities for various employee leave balances increased by \$1,495,000 as compared to the prior fiscal year and is recognized as an expense (credit) in the governmental activities.																
+\$96,385,000	Subtotal for Public Safety Salaries and Benefits – Net Increase																
+\$13,655,000	Reasons for increases and decreases to the following categories of services and supplies are further explained in the Major Governmental Funds portion of this Management’s Discussion and Analysis (see pages 15-18): <table style="width: 100%; margin-left: 20px;"> <tr> <td style="width: 80%;">➤ FIRIS program</td> <td style="text-align: right;">+\$6,630,000</td> </tr> <tr> <td>➤ VHF radios</td> <td style="text-align: right;">-\$1,540,000</td> </tr> <tr> <td>➤ Insurance premiums</td> <td style="text-align: right;">+\$715,000</td> </tr> <tr> <td>➤ Other services and supplies (various funds)</td> <td style="text-align: right;">+\$7,850,000</td> </tr> <tr> <td style="padding-left: 20px;">Total – net increase in expenses</td> <td style="text-align: right; border-top: 1px solid black; border-bottom: 3px double black;">+\$13,655,000</td> </tr> </table>	➤ FIRIS program	+\$6,630,000	➤ VHF radios	-\$1,540,000	➤ Insurance premiums	+\$715,000	➤ Other services and supplies (various funds)	+\$7,850,000	Total – net increase in expenses	+\$13,655,000						
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-\$6,640,000	<p>OCFA has partnered with Southern California Edison (SCE) in both the current and prior fiscal years to fund the Quick Reaction Force (QRF) air operations program, which is designed to enhance OCFA’s regional aerial wildland fire response and benefit the residents and businesses within Southern California Edison’s service territory. Payments made to vendors to operate the program (excluding flight time) are \$6,210,000 higher in Fiscal Year 2022/23 because the program operated for entire fiscal year (365 days), as compared to only 171 combined days in the prior fiscal year. However, during Fiscal Year 2022/23, OCFA amended its long-term lease agreement with Coulson Aviation (USA) Inc. and thus reported a right-to-use lease liability for aircraft used in the QRF program. Lease payments are considered a reduction to the outstanding principal balance of the lease, rather than an expense. The net impact was an overall \$6,640,000 decline in QRF program expenses as shown in the table below.</p> <table style="width: 100%; margin-left: 20px; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;"></th> <th style="text-align: center; border-bottom: 1px solid black;">FY 2022/23</th> <th style="text-align: center; border-bottom: 1px solid black;">FY 2021/22</th> <th style="text-align: center; border-bottom: 1px solid black;">Increase (Decrease)</th> </tr> </thead> <tbody> <tr> <td>QRF program vendor payments (excluding flight time)</td> <td style="text-align: right;">\$ 16,305,000</td> <td style="text-align: right;">\$10,095,000</td> <td style="text-align: right;">\$ 6,210,000</td> </tr> <tr> <td>Less: Coulson aircraft lease principal payments</td> <td style="text-align: right;">(12,850,000)</td> <td style="text-align: center;">-</td> <td style="text-align: right;">(12,850,000)</td> </tr> <tr> <td style="padding-left: 20px;">Total QRF program expenses</td> <td style="text-align: right; border-top: 1px solid black; border-bottom: 3px double black;">\$ 3,455,000</td> <td style="text-align: right; border-top: 1px solid black; border-bottom: 3px double black;">\$10,095,000</td> <td style="text-align: right; border-top: 1px solid black; border-bottom: 3px double black;">\$(6,640,000)</td> </tr> </tbody> </table>		FY 2022/23	FY 2021/22	Increase (Decrease)	QRF program vendor payments (excluding flight time)	\$ 16,305,000	\$10,095,000	\$ 6,210,000	Less: Coulson aircraft lease principal payments	(12,850,000)	-	(12,850,000)	Total QRF program expenses	\$ 3,455,000	\$10,095,000	\$(6,640,000)
	FY 2022/23	FY 2021/22	Increase (Decrease)														
QRF program vendor payments (excluding flight time)	\$ 16,305,000	\$10,095,000	\$ 6,210,000														
Less: Coulson aircraft lease principal payments	(12,850,000)	-	(12,850,000)														
Total QRF program expenses	\$ 3,455,000	\$10,095,000	\$(6,640,000)														
+\$910,000	<p>OCFA’s long-term liability for workers’ compensation reflects the present value of estimated outstanding losses, as determined by an actuarial valuation and the “confidence level” set by the Board of Directors. The change in the actuarial liability estimate, plus actual cash claims paid, is recognized as an expense.</p> <table style="width: 100%; margin-left: 20px; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;"></th> <th style="text-align: center; border-bottom: 1px solid black;">FY 2022/23</th> <th style="text-align: center; border-bottom: 1px solid black;">FY 2021/22</th> <th style="text-align: center; border-bottom: 1px solid black;">Increase (Decrease)</th> </tr> </thead> <tbody> <tr> <td>Actual claims paid</td> <td style="text-align: right;">\$15,125,000</td> <td style="text-align: right;">\$13,750,000</td> <td style="text-align: right;">\$1,375,000</td> </tr> <tr> <td>Change in actuarial estimate</td> <td style="text-align: right;">12,065,000</td> <td style="text-align: right;">12,530,000</td> <td style="text-align: right;">(465,000)</td> </tr> <tr> <td style="padding-left: 20px;">Total expenses</td> <td style="text-align: right; border-top: 1px solid black; border-bottom: 3px double black;">\$27,190,000</td> <td style="text-align: right; border-top: 1px solid black; border-bottom: 3px double black;">\$26,280,000</td> <td style="text-align: right; border-top: 1px solid black; border-bottom: 3px double black;">\$ 910,000</td> </tr> </tbody> </table>		FY 2022/23	FY 2021/22	Increase (Decrease)	Actual claims paid	\$15,125,000	\$13,750,000	\$1,375,000	Change in actuarial estimate	12,065,000	12,530,000	(465,000)	Total expenses	\$27,190,000	\$26,280,000	\$ 910,000
	FY 2022/23	FY 2021/22	Increase (Decrease)														
Actual claims paid	\$15,125,000	\$13,750,000	\$1,375,000														
Change in actuarial estimate	12,065,000	12,530,000	(465,000)														
Total expenses	\$27,190,000	\$26,280,000	\$ 910,000														
+\$7,925,000	Subtotal for Public Safety Services and Supplies – Net Increase																
+\$12,480,000	Public Safety Depreciation and Amortization Expense , which had no impact on OCFA’s cash balances, increased by \$12,480,000, and pertained primarily to depreciation on right-to-use lease aircraft and vehicles. Fiscal Year 2022/23 was the first partial year of depreciation on the aircraft leased from Coulson Aviation (USA) Inc., as well as the first full year of depreciation on eight type one engines that were placed into service during the prior fiscal year.																
+\$116,790,000	Total Public Safety Expenses – Net Decrease																

OCFA Foundation: OCFA reports the financial activities of the OCFA Foundation as a discretely presented component unit in its government-wide financial statements. The OCFA Foundation also issues separate, component-unit financial statements that may be obtained through written request from OCFA Executive Management at 1 Fire Authority Road, Irvine, California, 92602. The net position of the OCFA Foundation totaled \$302,944 at June 30, 2023, an 11.8% decrease from the prior fiscal year. Following is a summary of the OCFA Foundation’s net position as of and for the changes thereof for the fiscal years ending June 30, 2023 and 2022:

OCFA FOUNDATION's Condensed Financial Activity				
<u>Component Unit</u>	<u>June 30, 2023</u>	<u>June 30, 2022</u>	<u>Increase (Decrease)</u>	
			<u>Amount</u>	<u>%</u>
Assets:				
Current and other assets	\$328,218	\$356,106	\$(27,888)	-7.8%
Capital assets, net	<u>11,118</u>	<u>11,917</u>	<u>(799)</u>	-6.7%
Total assets	<u>339,336</u>	<u>368,023</u>	<u>\$(28,687)</u>	-7.8%
Liabilities:				
Other liabilities	<u>36,392</u>	<u>24,569</u>	<u>11,823</u>	48.1%
Total liabilities	<u>36,392</u>	<u>24,569</u>	<u>11,823</u>	48.1%
Net position:				
Investment in capital assets	11,118	11,917	(799)	-6.7%
Restricted for grants, donations, and other programs	92,629	83,077	9,552	11.5%
Unrestricted	<u>199,197</u>	<u>248,460</u>	<u>(49,263)</u>	-19.8%
Total net position	<u>\$302,944</u>	<u>\$343,454</u>	<u>\$(40,510)</u>	-11.8%
Program revenues:				
Operating grants and contributions	<u>\$189,805</u>	<u>\$109,139</u>	<u>\$ 80,666</u>	73.9%
Total revenues	<u>189,805</u>	<u>109,139</u>	<u>80,666</u>	73.9%
Public safety expenses:				
Services and supplies	229,516	122,619	106,897	87.2%
Depreciation and amortization	<u>799</u>	<u>799</u>	<u>-</u>	n/a
Total expenses	<u>230,315</u>	<u>123,418</u>	<u>106,897</u>	86.6%
Change in net position	(40,510)	(14,279)	(26,231)	
Net position, beginning of year	<u>343,454</u>	<u>357,733</u>	<u>(14,279)</u>	
Net position, end of year	<u>\$302,944</u>	<u>\$343,454</u>	<u>\$(40,510)</u>	-11.8%

Net Position: At June 30, 2023, a portion of OCFA Foundation's net position reflects its investment in capital assets, which are not available for future spending. An additional portion of net position represents resources subject to external, donor-imposed restrictions that will be met through the actions of the Foundation or the passage of time. As of June 30, 2023, restricted net position included unspent amounts received for the Smoke Alarm Outreach Program, Drowning Prevention, the Fire Cadet Academy, the September 11th Memorial Project, the Girls Empowerment Camp, and projects at fire stations in Irvine, Laguna Hills, and Laguna Niguel. The remaining balance of the OCFA Foundation's net position is considered unrestricted and may be used to meet ongoing obligations.

Changes in Net Position: During Fiscal Year 2022/23, operating grants and contributions included \$59,976 in general contributions and \$129,829 in donations and other revenues restricted for various OCFA Foundation programs. Services and supplies expenses included \$10,935 for administrative costs such as bookkeeping services, credit card website services and convenience fees, gifts, and food. Other services and supplies expenses totaling \$218,581 related to various programs.

Financial Analysis of OCFA's Governmental Funds

Governmental Funds: OCFA uses fund accounting to ensure and demonstrate compliance with finance-related legal requirements. The focus of OCFA's governmental funds is on near-term inflows, outflows, and balances of spendable resources. Such information is useful in assessing the OCFA's financing requirements. Fund balance is divided into the following five categories:

- **Nonspendable:** Not in a spendable form, or legally or contractually required to remain intact
- **Restricted:** Subject to externally enforceable legal restrictions
- **Committed:** Use is constrained by specific limitations that the Board of Directors imposes upon itself by a formal action
- **Assigned:** Intended to be used by the government for specific purposes, subject to change, as established by the governing body itself or by management officials who have been delegated authority by the governing body
- **Unassigned:** Residual amounts in the General Fund available for any purpose (may serve as a useful measure of a government's net resources available for funding future operational needs)

Major Governmental Funds: If the assets, liabilities, revenues, or expenditures of a governmental fund exceed 10% of the total of all governmental funds, that fund is reported as major in the fund financial statements. OCFA has elected to classify all its governmental funds as major, regardless of the calculation. Following is a description of the changes in each fund’s revenues, expenditures, and other financing sources and uses from the prior to the current fiscal year, and how those changes impacted net fund balance. **Increases to revenues and other financing sources impact fund balance positively, while increases to expenditures and other financing uses impact fund balance negatively.**



The **General Fund** is the chief operating fund of OCFA. At the end of Fiscal Year 2022/23, the General Fund’s fund balance totaled \$229,059,016. Unassigned fund balance totaling \$26,725,234 (11.7%) is available for future spending. The remaining \$202,333,782 (88.3%) is not available for spending on any new purpose, because it has already been restricted, committed or assigned for specific purposes, or is in a nonspendable form. Total fund balance of OCFA’s General Fund increased by \$28,576,415 during the current fiscal year. The prior fiscal year’s fund balance increased by \$8,027,985, a difference of \$20,548,430. The significant reason(s) for that net difference are summarized in the following tables.

	Impact on Fund Balance (Rounded)
Revenues – net increase	+\$49,560,000
Expenditures – net increase	-\$40,585,000
Other financing sources and uses – net increase	+\$11,575,000
Impact on fund balance – net increase	+\$20,550,000

Impact on Fund Balance (Rounded)	Description
+\$23,275,000	Taxes. Revenue from property taxes increased primarily due to secured property taxes, which were 5.9% higher than the prior fiscal year. The increase in secured property taxes is related to a rise in assessed property values for jurisdictions within OCFA’s structural fire fund.
+\$12,545,000	Miscellaneous. The increase in miscellaneous revenue primarily relates to donations from Southern California Edison (SCE) in conjunction with the Quick Reaction Force (QRF) seasonal wildland air operations program. Current fiscal year revenues are higher by approximately \$7,625,000, because the program operated for the entire fiscal year (365 days), as compared to only 171 combined days in the prior fiscal year. In addition, the increase in Fiscal Year 2022/23 miscellaneous revenue was attributed in part to a \$5,045,000 increase in amounts received from the Orange County Professional Firefighters Association IAFF Local 3631 in connection with OCFA’s contract governing contributions to the firefighter medical trust, which pays monthly health care premiums for employees in the firefighter unit.
+\$7,560,000	Use of Money and Property. The portion of investment portfolio earnings allocated to the fund, net of a market value loss, increased by \$7,150,000. Other increases included interest related to property taxes (+\$325,000), interest from the Section 115 pension trust (+75,000), and lease revenue earned from the Regional Fire Operations Training Center (RFOTC) cell phone tower (+\$10,000).
+\$4,415,000	Charges for Services. The most significant increase in charges for services was over \$2.8 million for operating and facilities charges to cash contract cities per terms of the Joint Powers Agreement. In addition, inspection fees increased by \$1 million, which is attributed in part to a new base fee charged to customers.
+\$1,765,000	Intergovernmental. The net increase in intergovernmental revenue primarily related to a \$3.4 million increase in operating contract revenue with CALFIRE for protection of State Responsibility Area (SRA) lands. This was offset by an overall \$1.8 million decline in state and federal “assistance by hire” for emergency response activity and federal reimbursements for responses to tropical cyclones and other disasters. OCFA responded to forty-six state incidents in the current fiscal year as compared to fifty-nine in the prior fiscal year. Federal responses to national emergency incidents and for the Fire Management Assistance Grant (FMAG) program was also higher in the prior fiscal year due to the in-county Coastal fire and the out-of-county Jim fire.
+\$49,560,000	Subtotal – Impact of Revenues

(Continued)

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(Continued)

Impact on Fund Balance (Rounded)	Description																		
+\$9,350,000	Retirement. Actuarially required pension contributions based on employee compensation, net of savings achieved by pre-paying a portion of the subsequent fiscal year’s contribution to the Orange County Employees Retirement System (OCERS), decreased by \$11.3 million. That decrease is due in part to a decrease in the required employer retirement rates with OCERS for Fiscal Year 2022/23. The decrease to normal retirement costs was offset by increases for \$1.8 million in one-time rate saving payments made in accordance with OCFA’s “Snowball Plan” and \$165,000 in employer interest paid for employee reciprocity calculations.																		
-\$8,550,000	Employer Retiree Medical Contributions. OCFA contributed over \$24.7 million to the Retiree Medical Trust in Fiscal Year 2022/23, as compared to over \$16.2 million in contributions made in the prior fiscal year. With OCFA’s pension plan at OCERS achieving 85% funding, “Snowball Plan” contributions are being redirected to the Retiree Medical Plan in accordance with the 4th Amendment to the Joint Powers Authority Agreement. In addition, OCFA receives any excess funds from a medical trust managed by Orange County Professional Firefighters Associations IAFF Local 3631 and, in turn, contributes those funds to the Retiree Medical Trust per terms of the Health Plan Agreement.																		
-\$3,525,000	Regular Pay. Regular pay and related costs such as Medicare taxes increased by over \$3.5 million in Fiscal Year 2022/23. Scheduled pay increases went into effect per negotiated labor contracts, including the firefighter unit (4.0% effective March 2023) and general and supervisory units (4.5% effective May 2023).																		
+\$3,045,000	Overtime. Overtime costs decreased by over \$3 million, including overtime for emergencies and backfill for suppression personnel utilizing leave balances or on workers’ compensation. There were fewer in-county and out-of-county emergency events generating overtime in Fiscal Year 2022/23.																		
-\$900,000	Health Insurance. Employee health insurance and other benefits increased primarily due to firefighter health insurance premiums. OCFA contributes toward the cost of firefighter health insurance premiums at a contractual rate per month, per employee. The monthly rate was \$2,199 per month for both the current and prior fiscal years; however, more firefighter personnel had healthcare coverage for all twelve months during Fiscal Year 2022/23. This generally occurs when the number of new firefighters hired outpaces retirements. In addition, twenty new positions created for a state-funded hand crew were filled during Fiscal Year 2022/23.																		
-\$755,000	<p>Other Pay. Other pay – which includes pay to employees on workers’ compensation, educational incentives, paramedic/EMT bonuses, bilingual pay, longevity pay, and other specialty pay – increased or decreased as follows:</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding-left: 20px;">➤ Emergency medical technician (EMT) pay</td> <td style="text-align: right;">+\$620,000</td> </tr> <tr> <td style="padding-left: 20px;">➤ Paramedic specialty pay</td> <td style="text-align: right;">+\$155,000</td> </tr> <tr> <td style="padding-left: 20px;">➤ Longevity incentive pay (new)</td> <td style="text-align: right;">+\$155,000</td> </tr> <tr> <td style="padding-left: 20px;">➤ Special assignment pay for other safety specialties</td> <td style="text-align: right;">+\$350,000</td> </tr> <tr> <td style="padding-left: 40px;">Subtotal – increase in specialty pay for safety employees</td> <td style="text-align: right; border-top: 1px solid black;">+\$1,280,000</td> </tr> <tr> <td style="padding-left: 20px;">➤ Workers’ compensation pay</td> <td style="text-align: right;">-\$725,000</td> </tr> <tr> <td style="padding-left: 20px;">➤ Education incentive pay (safety and non-safety)</td> <td style="text-align: right;">+\$235,000</td> </tr> <tr> <td style="padding-left: 20px;">➤ Other miscellaneous taxable and nontaxable pay</td> <td style="text-align: right;">-\$35,000</td> </tr> <tr> <td style="padding-left: 40px;">Total – net increase in expenditures</td> <td style="text-align: right; border-top: 1px solid black; border-bottom: 3px double black;">+\$755,000</td> </tr> </table> <p>Specialty pay for safety employees was the most significant contributor to the increase in other pay. Memorandums of Understanding (MOU) between OCFA and its safety labor groups (Orange County Professional Firefighters Association and Orange County Fire Authority Chief Officers Association) include certain specialty pay provisions, which are typically calculated as a percentage of regular pay. A 4.0% regular pay increase for the firefighter unit that went into effect March 2023 generated increases in most related specialty pays such as EMT pay, paramedic specialty pay, special assignment pay, and education incentive pay. In addition, two specialty pay items for chief officers increased or went into effect for the first time during Fiscal Year 2022/23. EMT pay for chief officers with a current EMT or paramedic certification increased by 0.25% (from 6.25% to 6.5%). A new 3.0% longevity incentive pay also went into effect for all chief officers at the commencement of their third year in a bargaining unit position.</p>	➤ Emergency medical technician (EMT) pay	+\$620,000	➤ Paramedic specialty pay	+\$155,000	➤ Longevity incentive pay (new)	+\$155,000	➤ Special assignment pay for other safety specialties	+\$350,000	Subtotal – increase in specialty pay for safety employees	+\$1,280,000	➤ Workers’ compensation pay	-\$725,000	➤ Education incentive pay (safety and non-safety)	+\$235,000	➤ Other miscellaneous taxable and nontaxable pay	-\$35,000	Total – net increase in expenditures	+\$755,000
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➤ Longevity incentive pay (new)	+\$155,000																		
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Subtotal – increase in specialty pay for safety employees	+\$1,280,000																		
➤ Workers’ compensation pay	-\$725,000																		
➤ Education incentive pay (safety and non-safety)	+\$235,000																		
➤ Other miscellaneous taxable and nontaxable pay	-\$35,000																		
Total – net increase in expenditures	+\$755,000																		
+\$545,000	Vacation and Sick Leave Payouts. Vacation and sick leave payouts decreased primarily due to the retirement of three long-term employees with significant balances during Fiscal Year 2021/22.																		
-\$790,000	Subtotal – Impact of Salaries and Benefits																		

(Continued)

(Continued)

Impact on Fund Balance (Rounded)	Description																												
-\$6,630,000	Fire Integrated Real-Time Intelligence System Program (FIRIS). FIRIS is a state-funded program providing enhanced, state-wide wildfire and all-hazard situational awareness for first responders. Program services and supplies (excluding salaries and benefits) increased from \$9.1 million in Fiscal Year 2021/22 to \$15.7 million in Fiscal Year 2022/23. Rising program costs included increases to lease fixed wing aircraft and for air tactical ground support.																												
-\$6,210,000	Quick Reaction Force (QRF) Program. OCFA has partnered with Southern California Edison (SCE) in both the current and prior fiscal years to fund the QRF air operations program designed to enhance OCFA's regional aerial wildland fire response and benefit the residents and businesses within SCE's service territory. Services and supplies expenditures for the program's fixed costs (excluding flight time) are higher in Fiscal Year 2022/23 because the program operated for entire fiscal year (365 days), as compared to only 171 combined days in the prior fiscal year.																												
+\$1,540,000	VHF Radios. During Fiscal Year 2021/22, OCFA purchased 1,200 portable VHF radios and related accessories such as microphones, belt clips, antennas, and ports at a cost of \$1,540,000.																												
-\$1,375,000	Workers' Compensation Payments. OCFA's self-insurance program covers workers' compensation claims up to \$50 million, subject to a \$2 million retention per incident. Claims paid were higher during Fiscal Year 2022/23 as compared to the prior fiscal year. Amounts paid vary each year.																												
-\$715,000	Insurance Premiums. Insurance costs increased during Fiscal Year 2022/23, due primarily to rising premiums for general liability (+\$540,000) and excess workers' compensation (+\$175,000) coverage. The general liability premium increase was due to the Fire Agencies Insurance Risk Authority (FAIRA) pool experiencing above-average losses in employment liability claims; the general hardening of the current insurance market; the COVID-19 pandemic; and the increase in the number of OCFA vehicles, fire stations, and employees. The workers' compensation premium increase was due to several factors, including a serious OCFA burn over incident in 2020; the COVID-19 pandemic and general market impact; fewer carriers willing to offer insurance to the public safety sector; and the provider creating a new public safety rating group with increased rates that are being phased in over a three-year period.																												
-\$7,360,000	<p>Other Services and Supplies. Other services and supply costs experienced a net increase in Fiscal Year 2022/23 as follows:</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding-left: 20px;">➤ RFOTC uninterruptible power system replacement project</td> <td style="text-align: right;">+\$670,000</td> </tr> <tr> <td style="padding-left: 20px;">➤ Use of CALFIRE contract augmentation funding, including QRF flight time</td> <td style="text-align: right;">+\$630,000</td> </tr> <tr> <td style="padding-left: 20px;">➤ Purchase of new portable 800 MHz radios</td> <td style="text-align: right;">+\$620,000</td> </tr> <tr> <td style="padding-left: 20px;">➤ All RFOTC and fire station utilities (electricity, gas, water, and trash)</td> <td style="text-align: right;">+\$580,000</td> </tr> <tr> <td style="padding-left: 20px;">➤ Multi-year fire station first-in alerting system replacement project</td> <td style="text-align: right;">+\$545,000</td> </tr> <tr> <td style="padding-left: 20px;">➤ Vehicle repairs and automotive stock</td> <td style="text-align: right;">+\$545,000</td> </tr> <tr> <td style="padding-left: 20px;">➤ Out-of-county employee travel for training and meetings</td> <td style="text-align: right;">+\$395,000</td> </tr> <tr> <td style="padding-left: 20px;">➤ County-wide 800 MHz radio backbone maintenance</td> <td style="text-align: right;">+\$365,000</td> </tr> <tr> <td style="padding-left: 20px;">➤ Fire station bathroom remodel and gender compliance projects</td> <td style="text-align: right;">+\$265,000</td> </tr> <tr> <td style="padding-left: 20px;">➤ Fire station remodeling projects</td> <td style="text-align: right;">+\$205,000</td> </tr> <tr> <td style="padding-left: 20px;">➤ Diesel fuel, regular fuel, and employee mileage reimbursements</td> <td style="text-align: right;">+\$195,000</td> </tr> <tr> <td style="padding-left: 20px;">➤ Helicopter jet fuel</td> <td style="text-align: right;">+\$100,000</td> </tr> <tr> <td style="padding-left: 20px;">➤ Other services and supplies, net (combined)</td> <td style="text-align: right;">+\$2,245,000</td> </tr> <tr> <td style="padding-left: 40px;">Total – net increase in other services and supplies expenditures</td> <td style="text-align: right; border-top: 1px solid black;">+\$7,360,000</td> </tr> </table>	➤ RFOTC uninterruptible power system replacement project	+\$670,000	➤ Use of CALFIRE contract augmentation funding, including QRF flight time	+\$630,000	➤ Purchase of new portable 800 MHz radios	+\$620,000	➤ All RFOTC and fire station utilities (electricity, gas, water, and trash)	+\$580,000	➤ Multi-year fire station first-in alerting system replacement project	+\$545,000	➤ Vehicle repairs and automotive stock	+\$545,000	➤ Out-of-county employee travel for training and meetings	+\$395,000	➤ County-wide 800 MHz radio backbone maintenance	+\$365,000	➤ Fire station bathroom remodel and gender compliance projects	+\$265,000	➤ Fire station remodeling projects	+\$205,000	➤ Diesel fuel, regular fuel, and employee mileage reimbursements	+\$195,000	➤ Helicopter jet fuel	+\$100,000	➤ Other services and supplies, net (combined)	+\$2,245,000	Total – net increase in other services and supplies expenditures	+\$7,360,000
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-\$20,750,000	Subtotal – Impact of Services and Supplies																												

(Continued)

(Continued)

Impact on Fund Balance (Rounded)	Description
-\$18,700,000	Capital Outlay – Right-to-Use Lease Assets. During Fiscal Year 2022/23, OCFA amended its aircraft lease with Coulson Aviation (USA) Inc. for use of three aircraft in the QRF program. Because the lease is long-term in nature, capital outlay expenditures totaling over \$18.7 million are recognized for the right-to-use lease aircraft acquired under the provisions of GASB Statement No. 87. The capital outlay expended is offset by an equal amount of lease proceeds received.
-\$345,000	Capital Outlay – Other Assets. Capital outlay varies each year based on organizational needs for new and replacement equipment and vehicles. The most significant purchases in Fiscal Year 2022/23 included two box trucks and one caterpillar track loader funded via a federal grant and other state funding sources. The most significant purchase in Fiscal year 2021/22 was for four portable restroom and shower trailers.
-\$19,045,000	Subtotal – Impact of Capital Outlay
-\$40,585,000	Subtotal – Impact of Expenditures
+\$18,700,000	Proceeds from Issuance of Lease. During Fiscal Year 2022/23, OCFA amended its aircraft lease with Coulson Aviation (USA) Inc. for use of three aircraft in the QRF program. Because the lease is long-term in nature, the present value of all future lease payments is reported in the General Fund as proceeds from the issuance of lease-related debt under the provisions of GASB Statement No. 87. The lease proceeds received are offset by an equal amount of capital outlay expended for the right-to-use lease aircraft.
-\$5,695,000	Interfund Transfers. Transfers made from the General Fund to the capital projects funds for projects in the Capital Improvement Program increased by \$4,430,000 in Fiscal Year 2022/23. In addition, transfers into the General Fund to fund the 10% Operating Contingency decreased by \$1,265,000 in Fiscal Year 2022/23.
-\$1,400,000	Insurance Recoveries. Insurance recoveries were higher in Fiscal Year 2021/22 due primarily to amounts received from OCFA’s excess workers’ compensation policy for a case relating to the October 2020 Silverado Fire.
-\$30,000	Proceeds from Sale of Capital Assets. There was a decrease in proceeds from sale of capital assets, with nine capital assets sold in Fiscal Year 2021/22 as compared to only three capital assets in Fiscal Year 2022/23. Various vehicles and two pairs of night vision goggles were sold in the prior fiscal year.
+\$11,575,000	Subtotal – Impact of Other Financing Sources and Uses
+\$20,550,000	General Fund – Net Impact on Fund Balance



The **Communications and Information Systems Fund** had total fund balance of \$6,037,384 at the end of Fiscal Year 2022/23. Fund balance was assigned to the Capital Improvement Program (\$5,597,631) and communications and information technologies projects (\$422,872). The remaining \$16,881 is not available for spending on any new purpose, because it is in a nonspendable form. Total fund balance increased by \$404,045 during the current fiscal year. The prior fiscal year’s fund balance increased by \$409,604, a difference of \$5,559. The significant reason(s) for that net difference are identified in the following table.

Impact on Fund Balance (Rounded)	Description
-\$300,000	Interfund Transfers. Transfers in from the General Fund for projects in the Capital Improvement Program totaled \$1.7 million during Fiscal Year 2021/22, as compared to \$4.5 million during Fiscal Year 2022/23. In addition, transfers out to the General Fund to fund the 10% Operating Contingency totaled \$3,100,000 during Fiscal Year 2022/23. No transfers out from this fund were made in the prior fiscal year.
+\$295,000	Use of Money and Property. The portion of investment portfolio earnings allocated to the fund, net of a market value loss, increased by \$295,000.
-\$5,000	Communications and Information Systems Fund – Net Impact on Fund Balance



The **Fire Apparatus Fund** had total fund balance of \$37,730,153 at the end of Fiscal Year 2022/23. Amounts pertaining to debt proceeds received for acquisition of two helicopters (\$12,530,156) were classified as restricted. Fund balance was assigned to the Capital Improvement Program (\$5,012,707) and purchase of fire apparatus and vehicles (\$20,178,582). The remaining \$8,708 is not available for spending on any new purpose, because it is in a nonspendable form. Total fund balance increased by \$21,160,193 during the current fiscal year. The prior fiscal year’s fund balance decreased by \$9,461,952, a difference of \$30,622,145. The significant reason(s) for that net difference are identified in the following table.

Impact on Fund Balance (Rounded)	Description																					
+\$11,890,000	<p>Issuance of Debt and Acquisition of New Helicopters. During Fiscal Year 2022/23, OCFA issued debt in order to fund the acquisition of two Sikorsky S-70M Type 1 Firehawk helicopters and related equipment, as well as for related training. The helicopters were in the process of being constructed as of June 30, 2023. Financial activities reported in the Fire Apparatus Fund pertaining to the debt issuance and related costs included the following:</p> <table style="width: 100%; margin-left: 40px;"> <thead> <tr> <th></th> <th style="text-align: right;">Other Financing Sources (Rounded)</th> <th style="text-align: right;">Expenditures (Rounded)</th> </tr> </thead> <tbody> <tr> <td>➤ Proceeds from issuance of debt</td> <td style="text-align: right;">\$57,880,000</td> <td style="text-align: right;">\$ -</td> </tr> <tr> <td>➤ Capital outlay for helicopters (debt-funded)</td> <td style="text-align: right;">-</td> <td style="text-align: right;">45,535,000</td> </tr> <tr> <td>➤ Capital outlay for helicopters – cockpit radios, rescue hoist cameras, and SkyCam module (not debt-funded)</td> <td style="text-align: right;">-</td> <td style="text-align: right;">310,000</td> </tr> <tr> <td>➤ Mechanic training costs (services and supplies)</td> <td style="text-align: right;">-</td> <td style="text-align: right;">100,000</td> </tr> <tr> <td>➤ Debt service issuance costs</td> <td style="text-align: right;">-</td> <td style="text-align: right;">45,000</td> </tr> <tr> <td style="text-align: right;">Total</td> <td style="text-align: right; border-top: 1px solid black; border-bottom: 3px double black;">\$57,880,000</td> <td style="text-align: right; border-top: 1px solid black; border-bottom: 3px double black;">\$45,990,000</td> </tr> </tbody> </table>		Other Financing Sources (Rounded)	Expenditures (Rounded)	➤ Proceeds from issuance of debt	\$57,880,000	\$ -	➤ Capital outlay for helicopters (debt-funded)	-	45,535,000	➤ Capital outlay for helicopters – cockpit radios, rescue hoist cameras, and SkyCam module (not debt-funded)	-	310,000	➤ Mechanic training costs (services and supplies)	-	100,000	➤ Debt service issuance costs	-	45,000	Total	\$57,880,000	\$45,990,000
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Total	\$57,880,000	\$45,990,000																				
+\$9,445,000	<p>Interfund Transfers. Transfers in from the General Fund for projects in the Capital Improvement Program increased by \$6,080,000 as compared to the amount transferred in during the prior fiscal year. In addition, transfers out to the General Fund to fund the 10% Operating Contingency totaled \$3,365,000 during Fiscal Year 2021/22. No transfers out from this fund were made in the current fiscal year.</p>																					
+\$7,020,000	<p>Apparatus and Vehicles. Expenditures to purchase and outfit vehicles vary each year based on organizational needs for new and replacement vehicles. Expenditures were higher in the prior fiscal year primarily due to the purchase of thirteen type one engines, as compared to the purchase and outfitting of 44 pickup trucks in the current fiscal year.</p>																					
+\$1,340,000	<p>Use of Money and Property. The portion of investment portfolio earnings allocated to the fund, net of a market value loss, increased by \$1,015,000. In addition, interest earned on unspent debt proceeds totaled \$325,000 during Fiscal Year 2022/23.</p>																					
+\$830,000	<p>Developer Contributions. During Fiscal Year 2022/23, OCFA received a developer fee reimbursement relating to a new type 1 engine assigned to Fire Station No. 67 (Rancho Mission Viejo).</p>																					
+\$95,000	<p>Charges for Services. Cash contract city vehicle charges increased in accordance with the terms of the Joint Powers Agreement. The annual charge is based on several factors, including the price of recent vehicle purchases and inflation, both of which increased.</p>																					
+\$30,620,000	<p>Fire Apparatus Fund – Net Impact on Fund Balance</p>																					



The **Fire Stations and Facilities Fund** had total fund balance of \$37,126,620 at the end of Fiscal Year 2022/23. Amounts pertaining to state revenues received for future fire station construction (\$17,641,560) were classified as restricted. Other amounts were assigned to the Capital Improvement Program (\$5,106,148) and construction projects (\$14,378,912). Total fund balance increased by \$15,818,164 during the current fiscal year. The prior fiscal year’s fund balance increased by \$2,819,974, a difference of \$12,998,190. The significant reason(s) for that net difference are identified in the following table.

Impact on Fund Balance (Rounded)	Description
+\$16,995,000	Intergovernmental. The increase in intergovernmental revenue related to annual contract revenues funds for the protection of the State Responsibility Area. In addition, OCFA received \$16,950,000 in state funding for the construction of a new hand crew fire station.
-\$3,450,000	Interfund Transfers. Transfers in from the General Fund for projects in the Capital Improvement Program totaled \$4,450,000 million during Fiscal Year 2021/22. No transfers in were received by this fund in the current fiscal year. In addition, transfers out to the General Fund to fund the 10% Operating Contingency totaled \$1,000,000 during Fiscal Year 2021/22. No transfers out from this fund were made in the current fiscal year.
-\$1,365,000	Capital Projects. Expenditures increased by \$1,365,000 due to multi-year capital improvement projects, which included the following most significant projects: <ul style="list-style-type: none"> ➤ Fire Station No. Station 24 (Mission Viejo) Replacement. Expenditures for the replacement of Fire Station No. Station 24 (Mission Viejo) increased by \$1,485,000. During Fiscal Year 2022/23, costs were incurred for pre-construction and design fees, construction administration, a temporary fire station modular, and a temporary garage. This project is expected to continue through Fiscal Year 2023/24. ➤ Fire Station No. 49 (Laguna Niguel). During Fiscal Year 2019/20, OCFA began a project to repair and reconstruct the apparatus bay floor at Fire Station No. 49 (Laguna Niguel), which was cracking and deteriorating due to possible settling of the ground. Non-capitalized project costs include geotechnical and structural engineering services, remediation, equipment rental, and concrete inspection tests, with most work completed during Fiscal Year 2021/22 (-\$590,000). Final inspection for the project was approved by the city in July 2022. ➤ Infrastructure Security Enhancement Project. This project is part of a larger security upgrade effort for the Regional Fire Operations Training Center (RFOTC) and other facilities, including separation and security in the board room. During Fiscal Year 2021/22, costs totaling \$35,000 were incurred for system design and engineering. During Fiscal Year 2022/23, costs totaling \$430,000 were incurred for additional system design and engineering; upgrades to gates, locks, and cameras; and a security camera system for the Urban Search & Rescue warehouse.
+\$1,000,000	Use of Money and Property. The portion of investment portfolio earnings allocated to the fund, net of a market value loss, increased by \$1 million.
-\$180,000	Developer Contributions. Contributions generated by Secured Fire Protection Agreements with developers vary each fiscal year based on housing development projects being completed throughout the county. Decreases in developer activity primarily related to projects in the cities of Cypress and Irvine that were completed in Fiscal Year 2021/22.
+\$13,000,000	Fire Stations and Facilities Fund – Net Impact on Fund Balance

General Fund Budgetary Highlights

The following table summarizes the changes in General Fund appropriations, as well as the variance between the final budget and actual amounts for Fiscal Year 2022/23.

	Original Budget	Increase (Decrease)	Final Budget	Variance Positive (Negative)	Actual Amounts
Salaries and benefits	\$395,372,500	\$ 25,206,939	\$420,579,439	\$ 401,196	\$420,178,243
Services and supplies	69,239,645	72,585,334	141,824,979	41,223,019	100,601,960
Capital outlay	1,485,886	4,609,893	6,095,779	(14,310,221)	20,406,000
Transfers out	13,942,226	-	13,942,226	-	13,942,226
	<u>\$480,040,257</u>	<u>\$102,402,166</u>	<u>\$582,442,423</u>	<u>\$27,313,994</u>	<u>\$555,128,429</u>

Adjustments to Appropriations: Budgeted General Fund appropriations increased by \$102,402,166 from the time the original budget was adopted until the end of the fiscal year. Adjustments typically pertained to activities that occurred throughout the year but were either unknown or for which reliable estimates could not be determined at the time of the original budget adoption. Significant adjustments are listed below:

Reason for Adjustment to Original Budget	Increase (Decrease) (Rounded)
Quick Reaction Force (QRF) program	\$ 25,350,000
Fire Integrated Real-Time Intelligence System (FIRIS) program	25,110,000
Overtime and backfill for response to out-of-county and other incidents	10,520,000
Grant activities	9,420,000
Employer contributions toward unfunded retiree medical liability	7,000,000
Staffing changes, reconfigurations, and service enhancements	4,800,000
Structural Fire Entitlement projects	4,300,000
Various Capital Improvement Program projects	4,020,000
Various equipment and vehicles	3,780,000
Employee Memorandum of Understanding changes	3,360,000
Various professional services	1,070,000
Various information technology projects and maintenance	470,000
COVID-19 pandemic services and supplies	340,000
Insurance	250,000
Helicopter program	(200,000)
Fuel	(140,000)
Equipment maintenance	40,000
Various other appropriations	2,910,000
Total adjustments	\$102,400,000

Variance Between Final Budget and Actual Amounts: Final, budgeted General Fund expenditures exceeded actual amounts, resulting in a positive budget variance totaling \$27,313,994. Over \$41.2 million of this positive variance related to operating costs, projects, and other purchases for services and supplies that were budgeted but not completed during Fiscal Year 2022/23. This is offset by a \$14.3 million negative variance for capital outlay expenditures that exceeded budgeted amounts during Fiscal Year 2022/23.

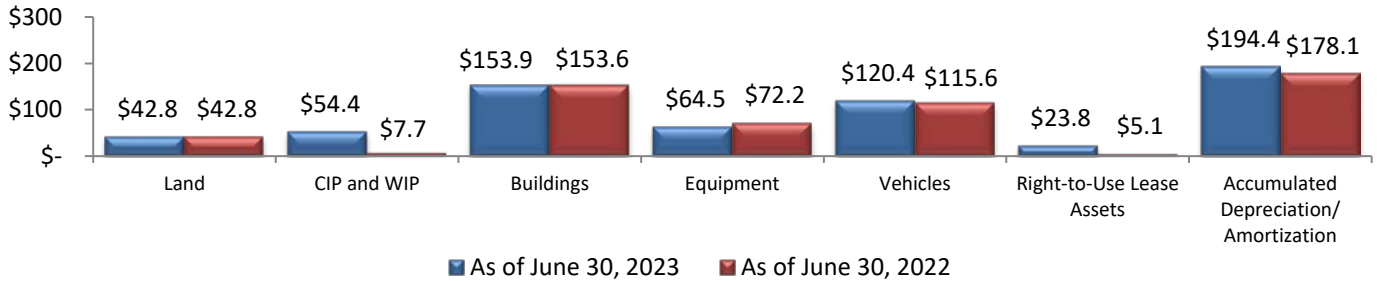
In some cases, uncompleted projects were delayed due to project complexity or time requirements and will be re-budgeted, if needed, to Fiscal Year 2023/24. Individually significant variances are summarized below:

Description of Budget/Actual Variance	Variance Positive (Negative)	
	Services and Supplies (Rounded)	Capital Outlay (Rounded)
Quick Reaction Force (QRF) Program. During Fiscal Year 2022/23, a \$25.2 million budget was adopted for the 555-day QRF program. Services and supplies expenditures totaling \$16.3 million were incurred through June 30, 2023, leaving a balance of \$8.9 million as of June 30, 2023. It is anticipated that these remaining funds will be used during Fiscal Year 2023/24 through the end of the program's December 31, 2023, operational period. In addition, during Fiscal Year 2022/23, OCFA amended its aircraft lease with Coulson Aviation (USA) Inc. Because the lease was long-term in nature, capital outlay expenditures totaling over \$18.7 million were recognized for the right-to-use lease aircraft acquired under the provisions of GASB Statement No. 87. OCFA did not budget for the \$18.7 million capital outlay expenditure.	\$ 8,900,000	\$(18,710,000)
Fire Integrated Real-Time Intelligence System (FIRIS) Program. The FIRIS program commenced August 1, 2021, and was subsequently extended through June 30, 2023. During Fiscal Year 2022/23, OCFA budgeted \$25.1 million for the program. Services and supplies expenditures totaling \$15.7 million were incurred through June 30, 2023, leaving a budget surplus of \$9.4 million.	9,410,000	-
Invasive Tree Pest Mitigation Grant. In October 2018, OCFA was awarded a \$5.4 million state grant passed through CALFIRE for invasive tree pest mitigation. The grant award's performance period is December 2018 through March 2025. A budget balance of over \$3.8 million remains unspent on services and supplies as of June 30, 2023. Contracts have been awarded for \$65,000 of the unspent balance. It is anticipated that the remaining funds will be used during Fiscal Year 2023/24 and through the end of the grant's award period.	3,840,000	-
Structural Fire Fund Projects. The entire balance of funds committed for Structural Fire Fund projects was budgeted during Fiscal Year 2022/23; however, member agencies submitted reimbursement requests only for those projects completed.	3,430,000	-
Workers' Compensation Claims Paid. The amount budgeted for workers' compensation is based on an actuarially-determined estimate. Actual case activity typically occurs over multiple years, which attributes to a difference between budgeted costs and actual expenditures during any given fiscal year. During Fiscal Year 2022/23, claims paid from the General Fund were less than the actuarial estimate, creating a positive budget variance.	2,080,000	-
Bathroom Gender Accommodation Project. During Fiscal Year 2019/20, OCFA began a multi-year bathroom gender accommodation project at various fire stations. Of the \$3.7 million budgeted in Fiscal Year 2022/23, a balance of \$1.8 million remains unspent as of June 30, 2023. Contracts have been awarded for \$69,000 of the unspent balance. The project is ongoing and it is anticipated that the remaining funds will be used during Fiscal Year 2023/24.	1,760,000	-
Phone/Public Address System Upgrade. OCFA is replacing its telephone system with a new Voice over Internet Protocol (VoIP) system. The multi-year project began in late Fiscal Year 2022/23. Capital outlay expenditures totaled \$13,000 for a phone system at Fire Station No. 67 (Rancho Mission Viejo). Nearly the entire \$1.7 million budgeted amount in Fiscal Year 2022/23 remained unspent as of June 30, 2023. It is anticipated that remaining funds will be used as the project continues during Fiscal Year 2023/24.	-	1,680,000
Irvine Settlement Agreement. OCFA and the City of Irvine entered into a Settlement Agreement with provisions that enhance services throughout OCFA's jurisdiction. All projects identified in the agreement were budgeted during Fiscal Year 2022/23 at the maximum potential amount per the agreement. However, the city did not submit any reimbursement requests for the Joint Police-Fire Training Facility or bi-directional amplifiers.	1,540,000	-
800 MHz Radios. During FY 2022/23, OCFA budgeted \$2.1 million for all-band mobile and portable radios, including 800 MHz and VHF frequencies to be installed in new OCFA apparatus, and for use in training, academies, and supplying equipment caches. OCFA purchased 87 portable 800 MHz radios during Fiscal Year 2022/23 at a cost of \$600,000, leaving a budgeted balance of \$1.5 million unspent as of June 30, 2023. Contracts have been awarded for \$1 million of the unspent balance.	1,510,000	-
Other variances combined	8,750,000	2,720,000
Total	\$41,220,000	\$(14,310,000)

Capital Assets and Debt Administration

Capital Assets: OCFA’s net investment in capital assets for its government activities at the end of Fiscal Year 2022/23 totaled \$209,059,816 (net of accumulated depreciation, amortization, and related outstanding debt). Capital assets, net of accumulated depreciation, increased from the prior fiscal year by \$46,352,345 (21.2%). Following is a summary of capital assets by type for the current and prior fiscal years.

**Capital Assets and Accumulated Depreciation/Amortization
As of June 30, 2023 and 2022
(In Millions)**



Construction in Progress (CIP) and Work in Progress (WIP): Construction projects completed over the span of multiple fiscal years are classified as CIP at year-end if they are not yet completed and placed into service. Fire engines, trucks, and other vehicles are classified as WIP at year-end if they are in the process of being outfitted for operation and will be completed over the span of multiple fiscal years. WIP also includes multi-year communications and information systems projects.

- CIP additions totaling \$1.6 million primarily related to the design and construction of new Fire Station No. 24 (Mission Viejo). Other significant CIP projects included the expansion of the RFOTC training ground and “North 40” area and audio-visual upgrades at the Urban Search & Rescue warehouse. The audio-visual upgrade project was placed into service during Fiscal Year 2022/23, while all other CIP projects remained in progress at fiscal year-end.
- WIP additions totaling \$49.7 million during Fiscal Year 2022/23 primarily related to the construction of two new Sikorsky Firehawk helicopters, which were approximately 80% complete as of June 30, 2023. Other significant WIP projects included an incident reporting system, the CAD2CAD next generation software system, EMS data analytics software, an apparatus bay addition at Fire Station No. 18 (Trabuco Canyon), a wildfire detection and monitoring system, a disaster recovery co-location project, and various fire apparatus, trailers, and pickup trucks in the process of being outfitted for operation. As of June 30, 2023, fifteen individual WIP projects were placed into service and fifty-four were still in progress.

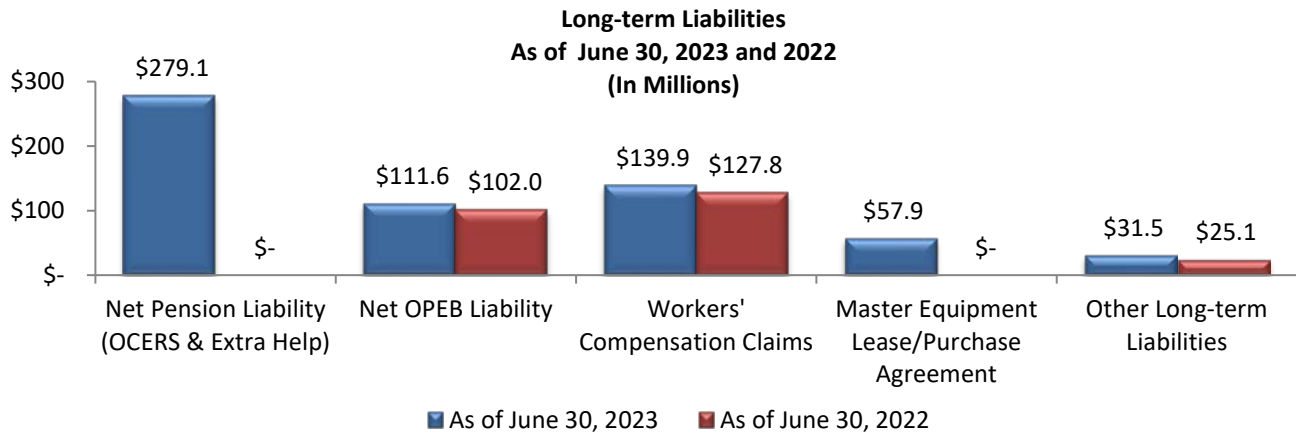
Equipment: Equipment additions totaled \$1.8 million for 126 items placed into service during Fiscal Year 2022/23. The most individually significant additions included 70 mobile data computers (\$455,000); nine trailers (\$390,000); and the CAD2CAD next generation software system (\$345,000). Equipment deletions totaled \$9.5 million and included two Bell Super Huey helicopters and related improvements that were donated to the Kern County Fire Department (\$7.8 million).

Vehicles: Vehicle additions totaled \$5.0 million for 13 items placed into service during Fiscal Year 2022/23. The most individually significant additions included five type one engines (\$3.5 million); one hazardous materials support vehicle (\$450,000); and two box trucks (\$430,000). One foam tender was removed from OCFA’s fleet during Fiscal Year 2022/23 and donated to CALFIRE.

Right-to-Use Lease Assets: Right-to-Use Lease equipment additions totaling \$18.7 million pertained to a long-term lease agreement with Coulson Aviation (USA) Inc. for the right to use various aircraft in the Quick Reaction Force Program.

Additional information pertaining to OCFA’s capital assets can be found in Note 9 of the accompanying Notes to the Financial Statements.

Long-term Debt: Total long-term liabilities increased by net \$364,912,531 (143.1%) during Fiscal Year 2022/23.



The most significant change to long-term liabilities pertained to the net pension liability for the Orange County Employees Retirement System (OCERS) pension plan. As of June 30, 2022, OCFA's share of the plan's net pension liability at OCERS, as determined by an actuarial valuation for the plan as a whole, was reported as an *asset* in the amount of \$104,907,413. As of June 30, 2023, OCFA's share of the OCERS net pension liability was reported as a *liability* in the amount of \$279,060,590, which was a net \$384.0 million increase from the prior fiscal year.

The increases and decreases reported for the long-term pension liability are reported using an "accounting-based approach" to fully capture OCFA's net liability and related pension expense incurred during each fiscal year. This differs from the "funding-based approach" used to calculate annual retirement rates and the amount of required employer and employee contributions due from OCFA to OCERS. The net pension liability (asset) represents the amount of the total pension liability greater than (less than) the market value of assets as of June 30. The following table summarizes the changes in the components of the OCERS net pension liability from June 30, 2023 to June 30, 2022.

Component of OCERS	As of June 30, 2023	As of June 30, 2022	Increase (Decrease) Amount	%
Net Pension Liability (Asset)				
Safety:				
Total pension liability	\$2,203,048,540	\$2,059,654,727	\$ 143,393,813	7.0%
Market value of assets	<u>1,961,543,596</u>	<u>2,151,633,812</u>	<u>(190,090,216)</u>	-8.8%
Net pension liability - safety	\$ 241,504,944	n/a	\$ 241,504,944	n/a
Net pension (asset) - safety	n/a	\$ (91,979,085)	\$ (91,979,085)	-100.0%
General:				
Total pension liability	\$ 315,901,347	\$ 296,685,689	\$ 19,215,658	6.5%
Market value of assets	<u>278,345,701</u>	<u>309,614,017</u>	<u>(31,268,316)</u>	-10.1%
Net pension liability - general	\$ 37,555,646	n/a	\$ 37,555,646	n/a
Net pension (asset) - general	n/a	\$ (12,928,328)	\$ (12,928,328)	-100.0%
Total:				
Total pension liability	\$ 2,518,949,887	\$ 2,356,340,416	\$ 162,609,471	6.9%
Market value of assets	<u>2,239,889,297</u>	<u>2,461,247,829</u>	<u>(221,358,532)</u>	-9.0%
Net pension liability - total	\$ 279,060,590	n/a	\$ 279,060,590	n/a
Net pension (asset) - total	n/a	\$(104,907,413)	\$(104,907,413)	-100.0%

Additional information on the OCFA's long-term liabilities can be found in Note 18 of the accompanying Notes to the Financial Statements.

Next Year's Budget

The Fiscal Year 2023/24 General Operating Fund adopted expenditure budget is \$473.3 million, which is a net increase of \$24.9 million (5.5%) over the adopted Fiscal Year 2022/23 General Operating Fund expenditure budget totaling \$448.4 million. Highlights of the Fiscal Year 2023/24 General Operating Fund Budget are as follow:

- Budgeted salaries increased by \$18.9 million. The budget includes funding for seven new positions and reflects annual salary increases in accordance with the approved Memorandum of Understanding (MOU) with the Orange County Professional Firefighters Association (OCPFA). No MOU salary increases were scheduled or included for the Orange County Fire Authority Managers Association (OCFAMA), the Orange County Employees Association (OCEA), or the Chief Officers Association (COA), pending ongoing negotiations at the time of the budget's adoption. The budget also reflects increases for overtime usage, which has been trending higher in recent years, and decreases for salary savings in the firefighter rank due to projected vacancies.
- Budgeted retirement and other benefits decreased by \$1.0 million. The retirement budget for Fiscal Year 2023/24 is based on rates provided by the Orange County Employees Retirement System (OCERS), which were approximately 4.12% and 1.81% lower for safety and general personnel, respectively, as compared to the prior fiscal year.
- Budgeted services and supplies and capital outlay increased by \$7.0 million. Overall, budgets are held flat as compared to the prior fiscal year, unless a new fire station is built or specific increases have been identified by OCFA management on a case-by-case basis.

Requests for Information

This financial report is designed to provide a general overview of OCFA's and the OCFA Foundation's finances for all those with an interest in the government's finances. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to the Finance Division Manager, Orange County Fire Authority, 1 Fire Authority Road, Irvine, California 92602.

Orange County Fire Authority



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Government-wide Financial Statements



Fire Station 67 Ribbon Cutting
December 8, 2022

ORANGE COUNTY FIRE AUTHORITY
Statement of Net Position
June 30, 2023
(With Comparative Data for Prior Year)

	Primary Government		Component Unit	
	Governmental Activities		OCFA Foundation	
	2023	2022	2023	2022
Assets:				
Cash and investments (Note 4)	\$ 251,752,836	\$ 195,486,189	\$ 328,218	\$ 356,106
Accounts receivable, net (Note 5)	2,539,433	2,554,706	-	-
Accrued interest receivable	565,817	224,398	-	-
Prepaid costs and other assets (Note 6)	18,521,015	20,095,181	-	-
Due from other governments (Note 7)	37,081,429	31,902,420	-	-
Restricted cash and investments (Note 4)	19,896,244	5,221,012	-	-
Lease receivables (Note 8)	895,177	838,177	-	-
Proportionate share net pension asset	-	104,907,413	-	-
Capital assets (Note 9):				
Land	42,757,850	42,757,850	-	-
Construction in progress	2,277,371	977,546	-	-
Work in progress	52,080,439	6,766,409	-	-
Capital assets, net of accumulated depreciation/amortization	<u>168,214,127</u>	<u>168,475,637</u>	<u>11,118</u>	<u>11,917</u>
Total assets	<u>596,581,738</u>	<u>580,206,938</u>	<u>339,336</u>	<u>368,023</u>
Deferred outflows of resources:				
Related to pensions/OPEB (Note 23)	<u>268,112,178</u>	<u>131,162,798</u>	-	-
Total deferred outflows of resources	<u>268,112,178</u>	<u>131,162,798</u>	-	-
Liabilities:				
Accounts payable	9,089,074	11,819,377	21,542	23,219
Accrued liabilities	15,382,108	14,236,694	-	-
Accrued interest payable	1,191,326	-	-	-
Unearned revenue (Note 10)	9,378,655	17,414	14,850	1,350
Due to other governments (Note 11)	5,029	10,084	-	-
Long-term debt obligations due within one year (Note 18)	2,770,492	-	-	-
Compensated absences due within one year (Note 18)	4,730,160	4,713,845	-	-
Claims and judgments due within one year (Note 18)	16,558,042	15,249,792	-	-
Lease liabilities due within one year (Note 18)	5,886,589	21,827	-	-
Noncurrent liabilities due in more than one year:				
Long-term debt obligations due in more than one year (Note 18)	55,111,628	-	-	-
Compensated absences due in more than one year (Note 18)	16,019,187	15,527,755	-	-
Claims and judgments due in more than one year (Note 18)	123,349,172	112,583,568	-	-
Lease liabilities due in more than one year (Note 18)	4,847,718	4,872,824	-	-
Net OPEB liability (Notes 18)	111,599,764	102,002,299	-	-
Net pension liability (Notes 18)	<u>279,061,265</u>	<u>49,576</u>	-	-
Total liabilities	<u>654,980,209</u>	<u>281,105,055</u>	<u>36,392</u>	<u>24,569</u>
Deferred inflows of resources:				
Related to leases (Note 8)	839,179	800,802	-	-
Related to pensions/OPEB (Note 23)	<u>146,477,623</u>	<u>476,270,304</u>	-	-
Total deferred inflows of resources	<u>147,316,802</u>	<u>477,071,106</u>	-	-
Net position:				
Net investment in capital assets (Note 9b)	209,059,816	214,082,791	11,118	11,917
Restricted for capital projects	30,194,753	634,157	-	-
Restricted for augmentation and upstaffing activities	1,581,979	1,683,073	-	-
Restricted for greenhouse gas reduction activities	3,123,572	2,557,259	-	-
Restricted for Section 115 pension trust	7,316,140	5,224,229	-	-
Restricted for grants, donations, and other programs	-	-	92,629	83,077
Unrestricted	<u>(188,879,355)</u>	<u>(270,987,934)</u>	<u>199,197</u>	<u>248,460</u>
Total net position	<u>\$ 62,396,905</u>	<u>\$ (46,806,425)</u>	<u>\$ 302,944</u>	<u>\$ 343,454</u>

ORANGE COUNTY FIRE AUTHORITY
Statement of Activities
Year ended June 30, 2023
(With Comparative Data for Prior Year)

	Primary Government		Component Unit	
	Governmental Activities		OCFA Foundation	
	2023	2022	2023	2022
Expenses:				
Public safety:				
Salaries and benefits	\$ 346,185,496	\$ 249,802,878	\$ -	\$ -
Services and supplies	101,221,979	93,296,815	229,516	122,619
Depreciation and amortization (Note 9c)	25,712,134	13,232,063	799	799
Interest on long-term debt	1,191,326	-	-	-
Total program expenses	474,310,935	356,331,756	230,315	123,418
Program revenues:				
Public safety:				
Charges for services	173,110,122	174,072,175	-	-
Operating grants and contributions	52,867,337	38,289,243	189,805	109,139
Capital grants and contributions	18,386,450	401,221	-	-
Total program revenues	244,363,909	212,762,639	189,805	109,139
Net program (expenses) revenues	(229,947,026)	(143,569,117)	(40,510)	(14,279)
General revenues:				
Property taxes	326,138,528	302,861,759	-	-
Investment income (loss)	5,388,518	(4,799,952)	-	-
Gain on disposal of capital assets	-	17,777	-	-
Miscellaneous	7,623,310	4,020,895	-	-
Total general revenues	339,150,356	302,100,479	-	-
Change in net position	109,203,330	158,531,362	(40,510)	(14,279)
Net position at beginning of year	(46,806,425)	(205,337,787)	343,454	357,733
Net position at end of year	\$ 62,396,905	\$ (46,806,425)	\$ 302,944	\$ 343,454

Fund Financial Statements



Urban Search & Rescue Canine Training
February 13, 2023

ORANGE COUNTY FIRE AUTHORITY
Governmental Funds
Balance Sheet
June 30, 2023
(With Comparative Data for Prior Year)

	Capital Projects Funds				Total Governmental Funds		
	General Fund	Communications and Information Systems		Fire Stations and Facilities		2023	2022
		Fire Apparatus					
Assets:							
Cash and investments	\$183,299,640	\$ 6,072,740	\$ 25,341,453	\$ 37,039,003	\$251,752,836	\$195,486,189	
Accounts receivable, net (Note 5)	2,382,931	156,502	-	-	2,539,433	2,554,706	
Accrued interest receivable	373,017	20,962	85,685	86,153	565,817	224,398	
Prepaid costs and other assets (Note 6)	32,572,426	16,881	8,708	-	32,598,015	35,447,181	
Due from other governments (Note 7)	36,987,615	-	-	93,814	37,081,429	31,902,420	
Restricted cash and investments	7,316,894	-	12,579,350	-	19,896,244	5,221,012	
Lease receivables (Note 8)	895,177	-	-	-	895,177	838,177	
Total assets	<u>\$263,827,700</u>	<u>\$ 6,267,085</u>	<u>\$ 38,015,196</u>	<u>\$ 37,218,970</u>	<u>\$345,328,951</u>	<u>\$271,674,083</u>	
Liabilities:							
Accounts payable	\$ 8,481,980	\$ 229,701	\$ 285,043	\$ 92,350	\$ 9,089,074	\$ 11,819,377	
Accrued liabilities	15,382,108	-	-	-	15,382,108	14,236,694	
Unearned revenue (Note 10)	9,378,655	-	-	-	9,378,655	17,414	
Due to other governments (Note 11)	5,029	-	-	-	5,029	10,084	
Total liabilities	<u>33,247,772</u>	<u>229,701</u>	<u>285,043</u>	<u>92,350</u>	<u>33,854,866</u>	<u>26,083,569</u>	
Deferred inflows of resources:							
Unavailable revenue (Note 10)	681,733	-	-	-	681,733	795,356	
Related to leases (Note 8)	839,179	-	-	-	839,179	800,802	
Total deferred inflows of resources	<u>1,520,912</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>1,520,912</u>	<u>1,596,158</u>	
Fund balances:							
Nonspendable prepaid costs (Note 6)	32,542,882	16,881	8,708	-	32,568,471	35,429,872	
Restricted (Note 12):							
Capital improvement program	-	-	12,530,156	17,641,560	30,171,716	611,120	
Various departments	4,728,588	-	-	-	4,728,588	4,263,369	
Section 115 pension trust	7,316,140	-	-	-	7,316,140	5,224,229	
Committed to SFF cities (Note 13)	3,519,541	-	-	-	3,519,541	4,301,785	
Assigned (Note 14):							
Capital improvement program	6,545,843	5,597,631	5,012,707	5,106,148	22,262,329	30,281,002	
Workers' compensation	143,334,044	-	-	-	143,334,044	125,039,963	
Various departments	1,849,756	-	-	-	1,849,756	1,354,029	
Facilities projects	232,727	-	-	-	232,727	106,235	
Communications/IT projects	2,116,855	422,872	-	-	2,539,727	1,583,401	
Fire apparatus and vehicles	-	-	20,178,582	-	20,178,582	15,016,508	
Construction projects	147,406	-	-	14,378,912	14,526,318	2,025,996	
Unassigned (Note 15)	26,725,234	-	-	-	26,725,234	18,756,847	
Total fund balances	<u>229,059,016</u>	<u>6,037,384</u>	<u>37,730,153</u>	<u>37,126,620</u>	<u>309,953,173</u>	<u>243,994,356</u>	
Total liabilities, deferred inflows of resources, and fund balances	<u>\$263,827,700</u>	<u>\$ 6,267,085</u>	<u>\$ 38,015,196</u>	<u>\$ 37,218,970</u>	<u>\$345,328,951</u>	<u>\$271,674,083</u>	

ORANGE COUNTY FIRE AUTHORITY
Reconciliation of the Balance Sheet of Governmental Funds to the Statement of Net Position
June 30, 2023
(With Comparative Data for Prior Year)

	2023	2022
Fund balances of governmental funds	\$309,953,173	\$243,994,356
<u>Capital Assets</u>		
The cost of capital assets used in governmental activities are recorded as expenditures in governmental funds when purchased, constructed, or leased. The Statement of Net Position includes those capital assets among the assets of OCFA as a whole, net of accumulated depreciation/amortization.		
Land, construction in progress, work in progress, buildings, equipment, and vehicles:		
Capital assets	435,913,896	391,983,043
Accumulated depreciation/amortization	(181,373,749)	(177,684,903)
Right-to-use lease assets:		
Capital assets	23,816,990	5,105,872
Accumulated amortization	(13,027,350)	(426,570)
<u>Long-term Liabilities and Assets</u>		
Long-term liabilities applicable to governmental activities are not due and payable in the current period and are not reported as governmental fund liabilities. All liabilities, both current and long-term, are reported in the Statement of Net Position. In addition, any long-term assets relating to pension obligations are not reported as governmental fund assets, but are reported in the Statement of Net Position.		
OCERS pension plan:		
Net pension asset	-	104,907,413
Net pension liability	(279,060,590)	-
Pension contributions	(14,077,000)	(15,352,000)
Deferred outflows of resources	228,140,263	105,015,352
Deferred inflows of resources	(51,603,321)	(335,209,026)
Extra Help pension plan:		
Net pension liability	(675)	(49,576)
Deferred outflows of resources	1,051	1,480
Other postemployment benefits (OPEB):		
Net OPEB liability	(111,599,764)	(102,002,299)
Deferred outflows of resources	39,970,864	26,145,966
Deferred inflows of resources	(94,874,302)	(141,061,278)
Capital lease purchase agreements	(57,882,120)	-
Accrued claims and judgments	(139,907,214)	(127,833,360)
Compensated absences	(20,749,347)	(20,241,600)
Lease liabilities	(10,734,307)	(4,894,651)
<u>Accrued Interest</u>		
Accrued interest for the current portion due on long-term liabilities has not been reported in the governmental funds, but has been calculated and reported in the Statement of Net Position.	(1,191,326)	-
<u>Unavailable Revenues</u>		
Unavailable revenues are reported in the governmental funds if not collected or expected to be collected within OCFA's availability period. Amounts relating to unavailable revenues are not reported in the Statement of Net Position since revenue recognition is not based upon measurable and available criteria.		
Due from other governments - Garden Grove start-up costs	681,733	795,356
Net position of governmental activities	\$ 62,396,905	\$ (46,806,425)

ORANGE COUNTY FIRE AUTHORITY
Governmental Funds
Statement of Revenues, Expenditures and Changes in Fund Balances
Year ended June 30, 2023
(With Comparative Data for Prior Year)

	Capital Projects Funds				Total Governmental Funds	
	General Fund	Communications and Information		Fire Stations and Facilities	2023	2022
		Systems	Fire Apparatus			
Revenues:						
Taxes	\$326,138,528	\$ -	\$ -	\$ -	\$326,138,528	\$302,861,759
Intergovernmental	59,312,256	-	-	17,170,143	76,482,399	57,726,610
Charges for services	148,770,572	-	1,749,288	-	150,519,860	146,007,793
Use of money and property	3,767,140	174,245	868,386	578,747	5,388,518	(4,799,952)
Miscellaneous	23,670,734	156,502	-	-	23,827,236	11,128,699
Developer contributions	-	-	831,983	219,600	1,051,583	401,221
Total revenues	<u>561,659,230</u>	<u>330,747</u>	<u>3,449,657</u>	<u>17,968,490</u>	<u>583,408,124</u>	<u>513,326,130</u>
Expenditures:						
Current - public safety:						
Salaries and benefits	420,178,243	-	-	-	420,178,243	419,386,430
Services and supplies	100,601,960	406,976	98,429	620,023	101,727,388	80,857,120
Capital outlay	20,406,000	922,123	49,472,289	1,530,303	72,330,715	12,963,172
Debt service:						
Issuance costs	-	-	43,092	-	43,092	-
Total expenditures	<u>541,186,203</u>	<u>1,329,099</u>	<u>49,613,810</u>	<u>2,150,326</u>	<u>594,279,438</u>	<u>513,206,722</u>
Excess (deficiency) of revenues over (under) expenditures	<u>20,473,027</u>	<u>(998,352)</u>	<u>(46,164,153)</u>	<u>15,818,164</u>	<u>(10,871,314)</u>	<u>119,408</u>
Other financing sources (uses):						
Transfers in (Note 17)	3,097,603	4,500,000	9,442,226	-	17,039,829	13,877,532
Transfers out (Note 17)	(13,942,226)	(3,097,603)	-	-	(17,039,829)	(13,877,532)
Issuance of lease (Notes 21 and 22)	18,711,118	-	57,882,120	-	76,593,238	12,690
Sale of capital assets	2,730	-	-	-	2,730	30,679
Insurance recoveries	234,163	-	-	-	234,163	1,632,834
Total other financing sources (uses)	<u>8,103,388</u>	<u>1,402,397</u>	<u>67,324,346</u>	<u>-</u>	<u>76,830,131</u>	<u>1,676,203</u>
Net change in fund balances	<u>28,576,415</u>	<u>404,045</u>	<u>21,160,193</u>	<u>15,818,164</u>	<u>65,958,817</u>	<u>1,795,611</u>
Fund balances, beginning of year	<u>200,482,601</u>	<u>5,633,339</u>	<u>16,569,960</u>	<u>21,308,456</u>	<u>243,994,356</u>	<u>242,198,745</u>
Fund balances, end of year	<u>\$229,059,016</u>	<u>\$ 6,037,384</u>	<u>\$ 37,730,153</u>	<u>\$ 37,126,620</u>	<u>\$309,953,173</u>	<u>\$243,994,356</u>

ORANGE COUNTY FIRE AUTHORITY
Reconciliation of the Statement of Revenues, Expenditures and Changes in
Fund Balances of Governmental Funds to the Statement of Activities
Year ended June 30, 2023
(With Comparative Data for Prior Year)

	2023	2022
Net change in fund balances - total governmental funds	\$ 65,958,817	\$ 1,795,611
 <u>Capital Assets</u>		
Governmental funds report capital outlays as expenditures. The cost of those assets is allocated over their estimated useful lives as depreciation/amortization expense in the Statement of Activities.		
Capital outlay	72,330,715	12,963,172
Depreciation/amortization expense	(25,712,134)	(13,232,063)
 Governmental funds report proceeds from disposal of capital assets as other financing sources. In the Statement of Activities, those proceeds are offset by the net book value of the assets, resulting in a gain or loss on the disposal.		
Proceeds from disposal of capital assets	(17,129)	(30,679)
Gain (loss) on disposal of capital assets	(249,107)	17,777
 <u>Long-term Liabilities</u>		
Proceeds from issuing long-term debt or entering into new lease agreements are recorded as other financing sources in the governmental funds. In the government-wide financial statements, these amounts increase the outstanding balance of long-term liabilities.		
Issuance of debt - lease purchase agreement	(57,882,120)	-
New lease agreements	(18,711,118)	(12,690)
 Repayment of principal on long-term debt and lease agreements is reported as an expenditure in governmental funds. Principal payments reduce long-term liabilities in the Statement of Net Position.		
Principal payments - helicopter tower lease agreement	20,546	19,521
Principal payments - copier lease agreement	-	78,869
Principal payments - Fullerton Airport land lease agreement	1,281	-
Principal payments - Coulson aircraft lease agreement	12,849,635	-
 Other long-term liabilities are reported in the Statement of Net Position. The net annual change in the liability is recognized as an expense in the Statement of Activities. Long-term liabilities do not require the use of current financial resources and are not reported as expenditures in the governmental funds.		
OCERS pension plan	24,037,613	129,750,011
Extra Help pension plan	48,472	35,172
Other postemployment benefits (OPEB)	50,414,409	38,811,505
Accrued claims and judgments - workers' compensation	(12,073,854)	(12,538,085)
Compensated absences - other leave balances	(507,747)	986,864
	(Continued on next page)	

ORANGE COUNTY FIRE AUTHORITY
Reconciliation of the Statement of Revenues, Expenditures and Changes in
Fund Balances of Governmental Funds to the Statement of Activities
Year ended June 30, 2023
(With Comparative Data for Prior Year)

	2023	2022
<i>(Continued)</i>		
<u>Accrued Interest</u>		
Interest expenditures are reported when paid in the governmental funds, while the net change in accrued interest incurred for the period is recognized as interest expense in the Statement of Activities.	(1,191,326)	-
<u>Unavailable Revenues</u>		
Certain receivables that have been accrued but not collected are reflected as unavailable revenue in the governmental funds. All earned revenue is recognized in the Statement of Activities regardless of when collected.		
Charges for services - Garden Grove start-up costs	(113,623)	(113,623)
<u>Interfund Transactions</u>		
Transactions between governmental funds are eliminated for presentation in the government-wide financial statements.		
Transfers in	(17,039,829)	(13,877,532)
Transfers out	17,039,829	13,877,532
Change in net position of governmental activities	\$109,203,330	\$158,531,362

ORANGE COUNTY FIRE AUTHORITY
General Fund
Budgetary Comparison Statement
Year ended June 30, 2023
(With Comparative Data for Prior Year)

	2023			Variance with Final Budget Positive (Negative)	2022
	Budget Amounts		Actual Amounts		Actual Amounts
	Original	Final			
Budgetary fund balance, July 1	\$ 200,482,601	\$ 200,482,601	\$ 200,482,601	\$ -	\$ 192,454,616
Resources (inflows):					
Taxes	315,735,745	325,727,253	326,138,528	411,275	302,861,759
Intergovernmental	29,289,912	80,122,924	59,312,256	(20,810,668)	57,550,253
Charges for services	146,631,335	146,558,695	148,770,572	2,211,877	144,354,836
Use of money and property	1,881,564	2,404,019	3,767,140	1,363,121	(3,790,520)
Miscellaneous	1,232,800	33,467,277	23,670,734	(9,796,543)	11,128,699
Transfers in	-	3,097,603	3,097,603	-	4,363,014
Issuance of lease	-	-	18,711,118	18,711,118	12,690
Sale of capital assets	75,000	5,000	2,730	(2,270)	30,679
Insurance recoveries	-	175,254	234,163	58,909	1,632,834
Total resources (inflows)	<u>494,846,356</u>	<u>591,558,025</u>	<u>583,704,844</u>	<u>(7,853,181)</u>	<u>518,144,244</u>
Amounts available for appropriations	<u>695,328,957</u>	<u>792,040,626</u>	<u>784,187,445</u>	<u>(7,853,181)</u>	<u>710,598,860</u>
Charges to appropriation (outflows):					
Salaries and benefits	395,372,500	420,579,439	420,178,243	401,196	419,386,430
Services and supplies	69,239,645	141,824,979	100,601,960	41,223,019	79,854,490
Capital outlay	1,485,886	6,095,779	20,406,000	(14,310,221)	1,360,821
Transfers out	13,942,226	13,942,226	13,942,226	-	9,514,518
Total charges to appropriations	<u>480,040,257</u>	<u>582,442,423</u>	<u>555,128,429</u>	<u>27,313,994</u>	<u>510,116,259</u>
Budgetary fund balance, June 30	<u>\$ 215,288,700</u>	<u>\$ 209,598,203</u>	<u>\$ 229,059,016</u>	<u>\$ 19,460,813</u>	<u>\$ 200,482,601</u>

ORANGE COUNTY FIRE AUTHORITY
Fiduciary Funds
Statement of Fiduciary Net Position
June 30, 2023
(With Comparative Data for Prior Year)

	Pension and Other Employee Benefit Trust Funds	
	2023	2022
Assets:		
Cash and investments (Note 4):		
Local Agency Investment Fund:		
Domestic fixed income	\$ 18,558	\$ 50,154
Pooled amounts held in trust with OCERS	52,013,173	60,362,996
Total cash and investments	52,031,731	60,413,150
Receivables:		
Other receivables	19,889	18,254
Total assets	52,051,620	60,431,404
Liabilities:		
Accrued liabilities	1,019,027	934,984
Total liabilities	1,019,027	934,984
Net position restricted for:		
Pensions	18,558	50,154
Postemployment benefits other than pensions	51,014,035	59,446,266
Total net position	\$ 51,032,593	\$ 59,496,420

ORANGE COUNTY FIRE AUTHORITY
Fiduciary Funds
Statement of Changes in Fiduciary Net Position
Year ended June 30, 2023
(With Comparative Data for Prior Year)

	Pension and Other Employee Benefit Trust Funds	
	2023	2022
	Additions:	
Contributions:		
Employer	\$ 3,239,308	\$ 17,372,300
Plan members	1,628,619	1,842,066
Total contributions	4,867,927	19,214,366
Net investment income:		
Total investment income	(4,303,560)	7,090,184
Investment fees and expenses	(378,398)	(348,148)
Total net investment income	(4,681,958)	6,742,036
Total additions	185,969	25,956,402
Deductions:		
Benefits and refunds paid to plan members and beneficiaries	8,626,156	8,440,288
Administrative expenses	23,640	23,640
Total deductions	8,649,796	8,463,928
Change in net position	(8,463,827)	17,492,474
Net position, beginning of year	59,496,420	42,003,946
Net position, end of year	\$ 51,032,593	\$ 59,496,420

Notes to the Financial Statements



Open House
March 4, 2023

ORANGE COUNTY FIRE AUTHORITY
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Year ended June 30, 2023

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Orange County Fire Authority



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**ORANGE COUNTY FIRE AUTHORITY
Notes to the Financial Statements
Year ended June 30, 2023**

(1) Summary of Significant Accounting Policies

(a) Description of the Reporting Entity

Effective March 1, 1995, the County of Orange (County) and the cities of Buena Park, Cypress, Dana Point, Irvine, Laguna Hills, Laguna Niguel, Lake Forest, La Palma, Los Alamitos, Mission Viejo, Placentia, San Clemente, San Juan Capistrano, Seal Beach, Stanton, Tustin, Villa Park, and Yorba Linda entered into a Joint Powers Agreement (JPA) to create the Orange County Fire Authority (OCFA). Since the creation of the OCFA, the cities of Aliso Viejo, Garden Grove, Laguna Woods, Rancho Santa Margarita, Santa Ana, and Westminster have also joined as members. The City of Placentia withdrew its membership from OCFA effective July 1, 2020. The purpose of OCFA is to provide fire protection, prevention, suppression, and related and incidental services including, but not limited to, emergency medical and transport services and hazardous materials regulation, as well as providing facilities and personnel for such services. OCFA's governing board consists of one representative from each member city and two from the County.

OCFA's operations are funded with a portion of property taxes collected by the County (Structural Fire Fund) for the unincorporated area and on behalf of all member cities except for the cities of Buena Park, Garden Grove, San Clemente, Santa Ana, Seal Beach, Stanton, Tustin, and Westminster, which are considered cash contract cities. The County pays all Structural Fire Fund taxes it collects to OCFA. Cash contract cities make cash contributions based on OCFA's annual budget. Upon dissolution, all surplus money and property of OCFA will be conveyed or distributed to each member in proportion to all funds provided to OCFA by that member or by the County on behalf of that member during its membership. Each member must execute any instruments of conveyance necessary to effectuate such distribution or transfer.

As required by generally accepted accounting principles, these financial statements present OCFA as the primary government, as well as any of its component units. A component unit is an entity for which a primary government entity is considered financially accountable.

- The primary government is considered financially accountable for an organization if it appoints a voting majority of that organization's governing body, and (1) if the primary government is able to impose its will on that organization or (2) there is a potential for that organization to provide specific financial benefits to or impose specific financial burdens on the primary government.
- The primary government may also be considered financially accountable for an organization if that organization is fiscally dependent on the primary government (i.e., the organization is unable to approve or modify its budget, levy taxes or set rates/charges, or issue bonded debt without approval from the primary government).
- In certain cases, other organizations are included as component units if the nature and significance of their relationship with the primary government are such that their exclusion would cause the primary government's financial statements to be misleading or incomplete, even though the primary government is not considered financially accountable for that organization under the criteria previously described. A legally separate, tax exempt organization is reported as a component unit if (1) the economic resources received or held by the organization are entirely or almost entirely for the direct benefit of the primary government or its constituents; (2) the primary government is entitled to or has the ability otherwise access a majority of the economic resources received or held by the organization; and (3) the economic resources received or held by the organization are significant to the primary government.

Component units must be classified as either “blended” or “discrete” in the primary government’s financial statements. A component unit is “blended” if the governing boards of the two organizations are substantially the same, or if the component unit provides services entirely or almost entirely to the primary government. Because of the closeness of its relationship with the primary government, a “blended” component unit is presented as though it is part of the primary government and, therefore, is included in both the government-wide and fund financial statements. Component units that do not meet either of these two criteria are considered “discrete” and are reported only in the government-wide financial statements.

A brief description of OCFA’s discretely presented component unit is as follows:

- The **OCFA Foundation** (“Foundation”) was established by the OCFA Board of Directors in July 2010, and qualifies as a nonprofit corporation under Section 501(c)(3) of the Internal Revenue Code and Section 23701(d) of the California Revenue and Taxation Code. The purpose of the Foundation is to support OCFA with the additional resources needed to provide an enhanced level of fire prevention, suppression, and emergency medical services to the citizens of Orange County. The Foundation assists OCFA by conducting fundraising activities and securing non-government grant funds, services, materials, and contributions that support OCFA’s mission. OCFA provided \$50,000 from the General Fund as start-up funding for the Foundation, which was subsequently repaid to OCFA on April 28, 2021. The tax-exempt status of the Foundation was approved by the Internal Revenue Service on February 23, 2011, and the inaugural meeting of the Foundation Board was April 28, 2011.

The Foundation’s Board of Directors consists of no less than three and no more than seven members, the exact number determined by resolution of the Foundation Board. Foundation Board members must have been active in or had significant prior experience in governmental or community organizations, or the fire service. The Foundation Board may consist of any combination of members of the public, OCFA employees, and/or past or current OCFA Board members. Initially, the Chair of OCFA’s Board appointed the first three Foundation Directors. As of June 30, 2023, there were five non-OCFA Board members on the Foundation’s Board. Additional members may be appointed by the Foundation Board at a future date via a simple majority vote.

The Foundation is considered a component unit of OCFA, because the nature and significance of its relationship with OCFA is such that its exclusion would cause OCFA’s financial statements to be misleading or incomplete. Within these financial statements, the Foundation is reported as a discrete component unit in the government-wide financial statements. The Foundation also issues separate, component unit financial statements that may be obtained through written request from OCFA Executive Management at 1 Fire Authority Road, Irvine, California 92602.

OCFA reports the Extra Help Retirement Plan and the Retiree Medical Plan, single-employer pension and other post-employment benefits plans, respectively, as fiduciary component units in the Pension and Other Post-Employment Benefits Trust Funds. These plans are administered by OCFA, with the OCFA Board serving as the governing body of the plans and approving plan provisions. Plan assets are held in trust in a fiduciary capacity for the purpose of providing pension and other post-employment benefits to OCFA’s retirees. As such, these component units are not reported as part of the OCFA’s reporting entity, but rather as fiduciary activities in accordance with GASB Statement No. 84.

(b) Measurement Focus and Basis of Accounting

Government-wide Financial Statements

The government-wide financial statements (i.e., the Statement of Net Position and the Statement of Activities), report information about OCFA as a whole, excluding its fiduciary activities. As a general rule, the effect of interfund activity has been eliminated from the government-wide financial statements. During the course of operations, OCFA has activity between its governmental funds for various purposes. Residual balances at the end of the fiscal year, interfund transfers, and other transactions between governmental funds, if any, are eliminated in the preparation of the government-wide financial statements.

The Statement of Activities demonstrates the degree to which the direct expenses of the given function are offset by program revenues. Direct expenses are those that are clearly identifiable with a specific function. Program revenues include (1) charges to customers or applicants who purchase, use, or directly benefit from goods, services, or privileges provided by a given function and (2) grants and contributions that are restricted to meeting the operational or capital requirements of a particular function. Taxes and other items not properly included among program revenues are reported instead as general revenues.

The government-wide financial statements are reported using the *economic resources measurement focus* and the *accrual basis of accounting*. Revenues are recorded when earned and expenses are recorded when a liability is incurred, regardless of the timing of related cash flows. Property taxes are recognized as revenues in the year for which they are levied. Grants and similar items are recognized as revenue as soon as all eligibility requirements imposed by the provider have been met.

Fund Financial Statements

Separate financial statements are provided for governmental funds and fiduciary funds, even though the latter are excluded from the government-wide financial statements. Major individual governmental funds are reported as separate columns in the fund financial statements.

Governmental fund financial statements are reported using the *current financial resources measurement focus* and the *modified accrual basis of accounting*. Revenues are recognized when they are both measurable and available. Revenues are considered available when they are collectible within the current period or soon enough thereafter to pay liabilities of the current period. OCFA considers revenues to be available if they are typically collected within 180 days of the end of the current fiscal period, with the exception of property taxes, which are considered available if they are typically collected within 60 days of the end of the current fiscal period. Expenditures generally are recorded when a liability is incurred under the accrual basis of accounting. However, debt service expenditures, as well as expenditures related to compensated absences, claims and judgments, and leases, are recorded only when payment is due.

Property taxes, charges for services, and interest associated with the current fiscal period are all considered to be susceptible to accrual and so have been recognized as revenues of the current fiscal period. All other revenue items are considered to be measurable and available only when cash is received by OCFA.

Fiduciary fund financial statements are reported using the same *economic resources measurement focus* and the *accrual basis of accounting* described for the government-wide financial statements.

(c) Major Funds and Other Fund Types

Major Governmental Funds

Major funds are those whose revenues, expenditures, assets, or liabilities are at least 10% of corresponding totals for all governmental funds. The General Fund is always a major fund. OCFA has elected to report all of its governmental funds as major funds.

- The **General Fund** is the primary operating fund of OCFA and is used to account for all financial resources not accounted for and reported in another fund. The General Fund accounts for the financial activities of providing fire suppression, protection, prevention, and related services to OCFA's member cities and unincorporated areas. The primary sources of revenue are property taxes for fire protection (Structural Fire Fund), cash contracts, intergovernmental reimbursements, and various user fees.
- The **Communications and Information Systems Fund** is a capital projects fund used to account for the significant acquisition, improvement, or replacement of specialized communications and information technology systems and/or equipment.

- The **Fire Apparatus Fund** is a capital projects fund used to account for the significant acquisition, improvement, or replacement of fire apparatus, including vehicles, trailers, and helicopters.
- The **Fire Stations and Facilities Fund** is a capital projects fund used to account for the significant acquisition, improvement, replacement, or construction of fire stations and facilities.

Fiduciary Fund Types

- **Pension and Other Employee Benefit Trust Funds** are used to report resources that are required to be held in trust for the members and beneficiaries of defined benefit pension plans, defined contribution plans, other postemployment benefit plans, or other employee benefit plans. OCFA’s pension and other employee benefit trust funds account for the extra help postemployment defined benefit retirement plan, and a postemployment health care plan trust established under Internal Revenue Code section 401(h) to pay health allowances to eligible retired members of the OCFA. The postemployment healthcare plan is presented in accordance with the plan year-end of December 31.

(d) Cash and Investments

OCFA's cash and cash equivalents are considered to be cash on hand, demand deposits, and short-term investments with original maturities of three months or less from the date of acquisition. For financial statement presentation purposes, cash and cash equivalents are shown as both restricted and unrestricted cash and investments.

Investments are stated at fair value (the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants), in accordance with GASB Statement No. 72. OCFA's policy is generally to hold investments until maturity. The State Treasurer's Investment Pool operates in accordance with appropriate state laws and regulations. The reported value of the pool is the same as the fair value of the pool shares.

(e) Receivables

All accounts receivable are shown net of an allowance for uncollectible amounts.

Under California law, counties assess and collect property taxes up to 1% of assessed value and can increase the property tax rate no more than 2% per year. The property taxes go into a pool and are then allocated to the cities and local government entities based on complex formulas. The County bills and collects the property taxes and distributes them to OCFA in installments during the year. Accordingly, OCFA accrues only those taxes which are received from the County within 60 days after year-end. A summary of the property tax calendar is as follows:

Lien date	January 1
Levy date	Fourth Monday of September
Due dates	November 1 and February 1
Delinquent dates	December 10 and April 10

(f) Inventories and Prepaid Costs

OCFA accounts for all supplies inventories (i.e., office supplies, automotive parts, vehicle and jet fuel, etc.) under the “purchase method,” whereby expenditures are recognized at the time they are purchased, rather than when they are consumed or used. Thus, supplies inventories are recognized at cost using the specific identification method at the time of purchase.

Certain payments to vendors reflect costs applicable to future accounting periods and are recorded as prepaid costs in both the government-wide and fund financial statements. OCFA accounts for prepaid items (i.e., warranties, annual maintenance fees, and professional memberships) under the “consumption method,” whereby expenditures are recognized proportionately over the period that the services are provided. Nonspendable fund balance in an amount equal to prepaid costs is reported in the governmental fund types, since these amounts are not in a spendable form.

OCFA has established a dollar threshold for the review and establishment of prepaid items. Individual invoices and charges greater than or equal to \$5,000 are evaluated for reporting under the consumption method. Individual invoices and charges less than \$5,000 are reported under the “purchase method.” At the discretion of OCFA Finance Division management, exceptions to the \$5,000 threshold may include travel-related items or situations where failing to report a prepaid item under the consumption method may cause an individual division or section to materially exceed its appropriated budget for a given fiscal year.

(g) Capital Assets, Right-to-Use Lease Assets, and Right-to-Use Subscription Assets

Capital assets of governmental activities are reported in the government-wide financial statements, including land, construction in progress, work in progress, buildings, equipment, and vehicles. Capital assets are defined by OCFA as assets with an estimated useful life in excess of one year and with an initial, individual cost of \$5,000 or more. Such assets are recorded at historical cost or estimated historical cost if purchased or constructed. Donated or developer-contributed capital assets are recorded at estimated acquisition value at the date of donation. The costs of normal maintenance and repairs that do not materially add to the value of the asset or materially extend the asset’s useful life are not capitalized. Major outlays for capital assets and improvements are capitalized as projects are constructed. Capital assets received in a service concession arrangement, if any, are reported at acquisition value.

Right-to-use lease assets are reported in the applicable governmental activities column in the government-wide financial statements. These capital assets are defined by OCFA as assets with an estimated useful life in excess of one year and with an initial, individual cost of \$50,000 or more. Such capital assets are recorded at the present value of the lease liability, including expenses to place the asset into service. In accordance with GASB Statement No. 87, OCFA has reported right-to-use lease assets for buildings, equipment, vehicles, and land.

Right-to-use subscription assets (intangible assets), if any, are reported in the governmental activities column in the government-wide financial statements. These capital assets are defined by OCFA as assets with an estimated useful life in excess of one year and with an initial, fixed and fixed in-substance future payment stream over the subscription term estimated at \$50,000 or more. As of June 30, 2023, all Subscription-Based Information Technology Arrangement (SBITA) assets meeting the criteria of GASB Statement No. 96 were below OCFA’s materiality threshold.

OCFA’s capital assets are depreciated or amortized using the straight-line method over the following estimated useful lives:

Buildings and Improvements	45 years
Equipment	3 – 40 years
Vehicles	4 – 20 years
Right-to-use lease assets	Shorter of the lease asset’s useful life or the lease term (currently >1 – 45 years)

(h) Deferred Outflows and Inflows of Resources

In addition to assets, the Statement of Net Position of governmental activities and the Balance Sheet of governmental funds may report a separate section for deferred outflows of resources. Deferred outflows of resources represent a consumption of net assets that applies to future periods and so will not be recognized as outflows of resources (expenses or expenditures) during the current fiscal year. OCFA currently reports deferred outflows pertaining to pensions and other postemployment benefits on the Statement of Net Position of governmental activities.

In addition to liabilities, the Statement of Net Position of governmental activities and the Balance Sheet of governmental funds may report a separate section for deferred inflows of resources. Deferred inflows of resources represent an acquisition of net assets that applies to future periods and so will not be recognized as inflows of resources (revenues) during the current fiscal year. Items that qualify for reporting as a deferred inflow in the governmental funds, which arise under the modified accrual basis of accounting, include unavailable revenue and deferred inflows pertaining to leases. These amounts will be recognized as an inflow of resources in the period that the amounts become available. OCFA also currently reports deferred inflows pertaining to pensions, other postemployment benefits, and leases on the Statement of Net Position of governmental activities.

(i) Compensated Absences

OCFA's policy permits employees to accumulate earned but unused vacation and sick pay benefits. All vacation pay and unpaid sick leave to which employees are entitled under their respective Memorandums of Understanding (MOU's) have been accrued when incurred in the government-wide financial statements. A liability for these amounts is reported in governmental funds only if it has matured (for example, as a result of employee resignations or retirements).

(j) Pensions

For purposes of measuring the net pension liability and deferred outflows/inflows of resources related to pensions and pension expense, information about the fiduciary net position of the Orange County Employees Retirement System (OCERS) plan and additions to/deductions from the plan's fiduciary net position have been determined on the same basis as they are reported by OCERS. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

(k) Postemployment Benefits Other Than Pensions (OPEB)

For purposes of measuring the net OPEB liability, deferred outflows of resources and deferred inflows of resources related to OPEB, and OPEB expense, information about the fiduciary net position of the Retiree Medical Plan and additions to/deductions from OCFA's fiduciary net position have been determined on the same basis. For this purpose, OCFA recognizes benefit payments when due and payable in accordance with the benefit terms. Investments are reported at fair value.

(l) Fund Equity

The components of the fund balances of governmental funds reflect the component classifications described below.

- **Nonspendable** fund balance includes amounts that are not in a spendable form, such as prepaid items or supplies inventories, or that are legally or contractually required to remain intact, such as principal endowments.
- **Restricted** fund balance includes amounts that are subject to externally enforceable legal restrictions imposed by outside parties (i.e., creditors, grantors, contributors) or that are imposed by law through constitutional provisions or enabling legislation.
- **Committed** fund balance includes amounts whose use is constrained by specific limitations that the government imposes upon itself, as determined by a formal action of the highest level of decision-making authority. The Board of Directors serves as OCFA's highest level of decision-making authority and has the authority to establish, modify, or rescind a fund balance commitment via a minutes order, which may or may not be documented by a written Board resolution.
- **Assigned** fund balance includes amounts intended to be used by OCFA for specific purposes, subject to change, as established either directly by the Board of Directors or by management officials to whom assignment authority has been delegated by the Board of Directors. OCFA's Board of Directors has established a *Fund Balance Assignment Policy* which establishes the authority by which OCFA may set aside cumulative resources in fund balance for an intended future use. The Board of Directors has the authority to assign fund balance, and has delegated its authority to assign amounts for workers' compensation and the capital improvement program to the Deputy Chief of the Administration & Support Bureau, or his/her designee, in accordance with the parameters outlined in the policy and subject to annual review and concurrence by the Budget and Finance Committee.
- **Unassigned** fund balance is the residual classification that includes spendable amounts in the General Fund that are available for any purpose. The General Fund should be the only fund that reports a positive unassigned fund balance. In other governmental funds, it is not appropriate to report a positive unassigned fund balance amount. However, in governmental funds other than the General Fund, if expenditures incurred for specific

purposes exceeded the amounts restricted, committed, or assigned to those purposes, it may be necessary to report a negative unassigned fund balance in that fund.

When expenditures are incurred for purposes for which both restricted and unrestricted (committed, assigned or unassigned) fund balances are available, OCFA's *Flow Assumptions Policy* specifies that restricted revenues will be applied first. When expenditures are incurred for purposes for which committed, assigned, or unassigned fund balances are available, OCFA's policy is to apply committed fund balance first, then assigned fund balance, and finally unassigned fund balance.

(m) Operating Contingency

In June 1998, OCFA established a General Fund Contingency Reserve ("operating contingency"), which was subsequently revised to 10% of budgeted non-grant operating expenditures. OCFA's policy states that the operating contingency be used only for operating contingencies, emergencies caused by calamitous events, and economic uncertainty. The operating contingency's balance is included within the unassigned fund balance category of the General Fund.

(n) Prior Year Data

The information included in the accompanying financial statements for the prior year has been presented for comparison purposes only and does not represent a complete presentation in accordance with generally accepted accounting principles. Certain minor reclassifications of prior year data have been made in order to enhance their comparability with current year figures.

(o) Use of Estimates

The financial statements are prepared in conformity with accounting principles generally accepted in the United States of America and, accordingly, include amounts that are based on management's best estimates and judgments. Actual results could differ from those estimates.

(2) Compliance and Accountability

(a) Budgetary Information

OCFA establishes accounting control through formal adoption of an annual operating budget for its governmental funds. The operating budgets are prepared on a basis consistent with generally accepted accounting principles. Annual appropriated budgets are adopted for all of OCFA's governmental funds.

Perspective differences occur when the framework used for budgeting differs from the fund structure used for financial reporting. OCFA's General Fund consists of five separately budgeted sub-funds that have been combined and consolidated for financial statement presentation. The table below reconciles fund balance for the General Fund as reported on the budgetary basis to the presentation in the financial statements. The Supplementary Schedules section of this report includes additional General Fund combining schedules for balance sheet, budgetary data, and actual operating data for the year ended June 30, 2023.

	Fund Balance as of June 30, 2023
Budgetary basis:	
General Operating Fund	\$ 44,421,509
General Fund Capital Improvement Program (CIP)	8,855,094
Structural Fire Entitlement	3,519,541
Self Insurance	143,334,044
Settlement Agreement	<u>28,928,828</u>
General Fund for financial statement presentation	<u>\$229,059,016</u>

The adopted budget can be amended by the Board to change both appropriations and estimated revenues as unforeseen circumstances come to management's attention. Increases and decreases in revenue and appropriations and transfers between funds require the Board's approval; however, division and section managers, Assistant Chiefs, Directors, and Deputy Chiefs may authorize changes within funds and/or their respective authorized budgets. Expenditures may not exceed total appropriations at the individual fund level. It is the practice of OCFA to review the budgets mid-year and, if necessary, recommend changes to the Board.

(b) Emergency Appropriations Policy

In September 2008, the Board adopted the Emergency Appropriations Policy to provide a means of increasing budgeted appropriations in the event that extraordinary fire or emergency incident activity occurs after the last Board meeting of the fiscal year, which may cause expenditures to exceed the authorized General Fund budget. The contingency appropriation, which may not exceed \$3,000,000 each fiscal year, is established for unforeseen requirements, primarily salary and employee benefits for extraordinary fire or emergency response. No expenditures may be made directly against the contingency appropriations; however, OCFA management may recommend a transfer from the contingency appropriations to a specific purpose appropriation. The Chair of the Board of Directors or the Vice Chair, in the absence of the Chair, must pre-approve any such transfers. Upon approval by the Chair or Vice Chair, notice of this transfer must be provided immediately to the full Board in writing.

(c) Encumbrance Accounting

Encumbrance accounting is employed in governmental funds. Encumbrances represent commitments related to unperformed contracts for goods or services. Encumbrance accounting, under which purchase orders, contracts, and other commitments for the expenditure of resources are recorded to reserve that portion of the applicable appropriation, is utilized in OCFA's governmental funds. Encumbrances outstanding at year-end are reported as restricted, committed, or assigned fund balance, depending on the type of revenue source associated with the encumbrance, and do not constitute expenditures or liabilities because the commitments will be honored during the subsequent fiscal year. All appropriations lapse at year-end with the exception of encumbered appropriations, which are effectually re-appropriated in the ensuing year's budget.

(3) Implementation of New Accounting Standards

During the year ended June 30, 2023, OCFA implemented the following new accounting standard issued by the Governmental Accounting Standards Board (GASB):

- **GASB Statement No. 96 *Subscription-Based Information Technology Arrangements*** provides guidance on the accounting and financial reporting for subscription-based information technology arrangements (SBITAs) for government end users (governments). A SBITA is defined as a contract that conveys control of the right to use another party's (a SBITA vendor's) information technology (IT) software, alone or in combination with tangible capital assets (the underlying IT assets), as specified in the contract for a period of time in an exchange or exchange-like transaction. Under the statement, a government generally should recognize a right-to-use subscription asset – an intangible asset – and a corresponding subscription liability. As of June 30, 2023, all SBITA assets meeting the criteria of GASB Statement No. 96 were below OCFA's \$50,000 materiality threshold.

(4) Cash and Investments

(a) Financial Statement Presentation

OCFA maintains a cash and investment pool that is available for use for all funds. Each fund's position in the pool is reported on the balance sheet as cash and investments. Pooled investments held in trust with OCERS (presented within the Fiduciary Funds of these financial statements) are reported as of the December 31, 2022 plan year-end date. Additional investment information is provided within these notes as Note 23.

Cash and investments as of June 30, 2023, are reported in the financial statements as follows:

	Statement of Net Position		Statement of Fiduciary Net Position	Total
	Governmental Activities	Discretely Presented Component Unit (OCFA Foundation)	Fiduciary Funds	
Cash and investments	\$251,752,836	\$328,218	\$52,031,731	\$304,112,785
Restricted cash and investments	<u>19,896,244</u>	-	-	<u>19,896,244</u>
Total	<u>\$271,649,080</u>	<u>\$328,218</u>	<u>\$52,031,731</u>	<u>\$324,009,029</u>

Cash and investments consist of the following as of June 30, 2023:

Petty cash / cash on hand	\$ 19,990
Demand deposits	931,474
Investments	<u>323,057,565</u>
Total	<u>\$324,009,029</u>

(b) Demand Deposits

At June 30, 2023, the carrying amount of OCFA's demand deposits was \$931,474 and the bank balance was \$1,435,806. The \$504,332 difference represents outstanding checks and other reconciling items.

California Government Code requires California banks and savings and loan associations to secure an entity's deposits by pledging government securities with a value of 110% of an entity's deposits. California law also allows financial institutions to secure entity deposits by pledging first trust deed mortgage notes having a value of 150% of an entity's total deposits. The entity's Treasurer may waive the collateral requirement for deposits which are fully insured by the FDIC. The collateral for deposits in federal and state-chartered banks is held in safekeeping by an authorized agent of depository recognized by the State of California Department of Banking. The collateral for deposits with savings and loan associations is generally held in safekeeping by the Federal Home Loan Bank in San Francisco, California as an agent of depository. These securities are physically held in an undivided pool for all California public agency depositors. Under Government Code Section 53655, the placement of securities by a bank or savings and loan association with an "agent of depository" has the effect of perfecting the security interest in the name of the local governmental agency. Accordingly, all collateral held by California agents of depository are considered to be held for, and in the name of, the local government. The OCFA Treasurer may waive the collateral requirement for deposits that are fully insured up to \$250,000 by the FDIC.

(c) Investments Authorized by Government Code and OCFA Investment Policy

The table below identifies investment types that are authorized by OCFA's investment policy and by California Government Code Section 53600 et seq. and Section 5922(d). The table also identifies provisions of the California Government Code (or OCFA's investment policy, if more restrictive) that address interest rate risk, credit risk, and concentration of credit risk. The table, however, does not cover investments of debt proceeds, if any, held by fiscal agent, which are governed by the provisions of debt agreements of OCFA rather than the general provisions of OCFA's investment policy. In addition, this table does not include other investment types that are allowable under the California Government Code but are not specifically authorized by OCFA's investment policy.

Investment Types	Maximum Maturity	Maximum % of Portfolio in Investment Type	Maximum % of Portfolio in Single Issuer
U.S. Treasury obligations	5 years	100%	100%
Federal agency securities	5 years	75% ⁽¹⁾	75% ⁽¹⁾
Bankers' acceptances	180 days	25% ⁽¹⁾	25% ⁽¹⁾
Commercial paper	270 days	15% ⁽¹⁾	15% ⁽¹⁾
Negotiable certificates of deposit	5 years	25% ⁽¹⁾	25% ⁽¹⁾
Repurchase agreements	14 days	15% ⁽¹⁾	15% ⁽¹⁾
Money market mutual funds	n/a	15% ^(1,2)	15% ^(1,2)
Local Agency Investment Fund	n/a	75% ⁽¹⁾	75% ⁽¹⁾

(1) Based on OCFA investment policy requirement, which is more restrictive than state law

(2) No limit on automatic overnight sweep

(d) Local Agency Investment Fund

OCFA is a voluntary participant in the Local Agency Investment Fund (LAIF), which is regulated by California Government Code Section 16429 under the oversight of the Treasurer of the State of California and the Pooled Money Investment Board. The State Treasurer's Office pools these funds with those of other governmental agencies in the State and invests the cash. The fair value of OCFA's investment in this pool, which approximates cost, is reported in the accompanying financial statements based on OCFA's pro-rata share of the fair value provided by LAIF for the entire LAIF portfolio (in relation to the amortized cost of that portfolio). The balance available for withdrawal is based on the accounting records maintained by LAIF, which are recorded on an amortized cost basis and reported as cash equivalents in the Statement of Net Position. Included in LAIF's investment portfolio are collateralized mortgage obligations, mortgage-backed securities, other asset backed securities, and floating rate securities issued by federal agencies, government-sponsored enterprises, and corporations. Deposits and withdrawals to and from LAIF are made on the basis of \$1 and not at fair value. Accordingly, under the fair value hierarchy, the investment with LAIF is uncategorized.

The Pooled Money Investment Board has established policies, goals, and objectives to make certain that their goal of safety, liquidity, and yield are not jeopardized. The value of OCFA's LAIF deposits as of June 30, 2023, was \$39,789,797 and had a weighted average maturity of 260 days. LAIF is not rated as to credit risk by a nationally recognized statistical rating organization. LAIF is administered by the State Treasurer's Office and audited annually by the Pooled Money Investment Board and the State Controller's Office. Copies of this audit may be obtained from the State Treasurer's Office, 915 Capitol Mall, Sacramento, California 95814.

(e) Internal Revenue Code Section 115 Trust

On May 23, 2019, OCFA's Board of Directors approved the adoption of the Public Agencies Post-Employment Benefits Trust, an Internal Revenue Service (IRS) Section 115 irrevocable trust (115 Trust) as required under the terms of a Settlement Agreement with the City of Irvine. The 115 Trust is administered by Public Agency Retirement Services (PARS) per the terms of an Agreement for Administrative Services (AAS) between OCFA and PARS for the initial term May 23, 2019, through May 23, 2022. Unless a thirty-day written notice to terminate is given by either party, the AAS will continue unchanged for successive twelve-month periods following the initial term. Under the terms of the AAS, PARS holds a private letter ruling from the IRS that assures the tax-exempt status of the investment. OCFA maintains control over the assets in the 115 Trust, which are not commingled with other agencies. PARS has entered into a Public Agencies Post-Employment Benefits Trust Arrangement with U.S. Bank National Association (U.S. Bank) effective November 5, 2014, whereby PARS serves as the Trust Administrator and U.S. Bank serves as the Trustee for a public agency that executes a 115 Trust agreement with PARS. Additional 115 Trust information, including the funding timeline required per OCFA's Settlement Agreement with the City of Irvine, is provided within these notes as Note 16.

(f) GASB Statement No. 72

GASB Statement No. 72, *Fair Value Measurement and Application*, establishes general principles for measuring fair value and standards of accounting and financial reporting for assets and liabilities measured at fair value. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants

at the measurement date. OCFA categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on valuation inputs used to measure the fair value of the asset. Level 1 inputs are quoted prices in active markets for identical assets. Level 2 inputs are significant other observable inputs. For Level 2 inputs, OCFA's custodian US Bank uses the services of ICE Data Services (IDS) to obtain the pricing information. Level 3 inputs are significant unobservable inputs. OCFA has the following fair value measurements as of June 30, 2023:

	Fair Value Hierarchy Level			Total
	Level 1	Level 2	Level 3	
U.S. Treasury obligations	\$ 88,031,790	\$ -	\$ -	\$ 88,031,790
Federal agency securities	-	104,343,708	-	104,343,708
Money market mutual funds	<u>31,562,203</u>	-	-	<u>31,562,203</u>
	<u>\$119,593,993</u>	<u>\$104,343,708</u>	<u>\$ -</u>	223,937,701
Uncategorized investments:				
LAIF				39,789,797
Pooled amounts held in trust with OCERS				52,013,173
Section 115 pension trust				<u>7,316,894</u>
Total				<u>\$323,057,565</u>

U.S. Treasury obligations and federal agency securities are valued using institutional bond quotes. Money market investments that have a remaining maturity at the time of purchase of one year or less and are held by governments other than external investment pools, and investments held by 2a7-like external investment pools, are measured at amortized cost as provided in GASB Statement No. 31, *Accounting and Financial Reporting for Certain Investments and for External Investment Pools*.

(g) Credit Risk

Generally, credit risk is the risk that an issuer of an investment will not fulfill its obligation to the holder of the investment. This is measured by the assignment of a rating by a nationally recognized statistical rating organization. Presented below is the minimum rating required (where applicable) by the California Government Code, OCFA's investment policy, or debt agreements, as well as the actual rating as of year-end for each investment type as of June 30, 2023.

	Minimum Rating Required	Rating at Year-End			
		AAA	Unrated	Exempt	Total
U.S. Treasury obligations	N/A	\$ -	\$ -	\$ 88,031,790	\$ 88,031,790
Federal agency securities	N/A	-	-	104,343,708	104,343,708
Money market mutual funds	Aaa/AA+/ AAA	31,562,203	-	-	31,562,203
LAIF	N/A	-	39,789,797	-	39,789,797
Pooled amounts held in trust with OCERS	N/A	-	52,013,173	-	52,013,173
Section 115 pension trust	N/A	-	<u>7,316,894</u>	-	<u>7,316,894</u>
Total		<u>\$31,562,203</u>	<u>\$99,119,864</u>	<u>\$192,375,498</u>	<u>\$323,057,565</u>

(h) Custodial Credit Risk

The custodial credit risk for *deposits* is the risk that in the event of the failure of a depository financial institution, a government will not be able to recover deposits or will not be able to recover collateral securities that are in the possession of an outside party. OCFA's investment policy requires that collateral be held by an independent third party with whom OCFA has a current custodial agreement. The custodial credit risk for *investments* is the risk that in the event of the failure of the counterparty to a transaction, a government will not be able to recover the value of investment or collateral securities that are in the possession of an outside party. OCFA's investment policy requires that all security

transactions are conducted on a delivery-versus-payment (DVP) method and that all securities are held by a qualified, third-party custodian, as evidenced by safekeeping receipts. The trust department of OCFA's bank may act as third-party custodian, provided that the custodian agreement is separate from the banking agreement. As of June 30, 2023, none of the OCFA's deposits or investments was exposed to disclosable custodial credit risk.

(i) Concentration of Credit Risk

OCFA's investment policy imposes restrictions for certain types of investments with any one issuer to 15% of the total investment pool with the following exceptions: U.S. Treasury obligations (100%), LAIF (75%), federal agency securities (75%), bankers' acceptances (25%), and negotiable certificates of deposit (25%). With respect to concentration risk as of June 30, 2023, OCFA is in compliance with the investment policy's restrictions. In addition, GASB Statement No. 40 requires a separate disclosure if any single issuer comprises more than 5% of the total investment value (exclusive of amounts held by fiscal agent and OCERS). Investments guaranteed by the U.S. government, mutual funds, and external investment pools are excluded from this requirement. Investments with issuers exceeding 5% of the total investment portfolio at June 30, 2023, are summarized below.

Issuer	Fair Value	% of Portfolio
Federal Home Loan Bank (FHLB)	\$76,717,928	30.5%
Federal Farm Credit Bank (FFCB)	\$27,625,780	11.0%

(j) Interest Rate Risk

Interest rate risk is the risk that changes in market interest rates will adversely affect the fair value of an investment. Generally, the fair values of investments with longer maturities have greater sensitivity to changes in market interest rates. OCFA's investment policy limits investment maturities as a means of managing its exposure to fair value losses arising from increasing interest rates. OCFA's investment policy states that at least 50% of the portfolio must mature in one year or less, and unless matched to a specific requirement and approved by the Executive Committee and the Board of Directors, no portion of the portfolio may exceed five years. OCFA has elected to use the segmented time distribution method of disclosure for its interest rate risk. As of June 30, 2023, the OCFA had the following investments and maturities:

	Investment Maturities in Months				Total
	6 or Less	7 to 12	13 to 60	N/A	
U.S. Treasury obligations	\$ 88,031,790	\$ -	\$ -	\$ -	\$ 88,031,790
Federal agency securities	41,605,900	9,064,676	53,673,132	-	104,343,708
Money market mutual funds	31,562,203	-	-	-	31,562,203
LAIF	-	39,789,797	-	-	39,789,797
Pooled amounts held in trust with OCERS	-	-	-	52,013,173	52,013,173
Section 115 pension trust	-	-	-	7,316,894	7,316,894
Total	<u>\$161,199,893</u>	<u>\$48,854,473</u>	<u>\$53,673,132</u>	<u>\$59,330,067</u>	<u>\$323,057,565</u>

As of June 30, 2023, OCFA's investments included the following callable investments exposed to interest rate risk:

Issuer	Call Date(s)	Yield to Call	Maturity Date	Fair Value
Federal Farm Credit Bank (FFCB)	7/1/2023	0.19%	9/22/2023	\$13,829,620
Federal Farm Credit Bank (FFCB)	7/1/2023	0.72%	4/28/2025	\$11,024,160
Federal Farm Credit Bank (FFCB)	7/21/2023	0.71%	4/21/2025	\$2,772,000
Federal Home Loan Bank (FHLB)	6/30/2023	0.55%	9/30/2024	\$7,502,560
Federal Home Loan Bank (FHLB)	7/8/2023	0.38%	4/8/2024	\$9,064,676
Federal Home Loan Bank (FHLB)	7/23/2023	0.52%	10/23/2024	\$10,296,932
Federal Home Loan Bank (FHLB)	7/29/2023	1.00%	4/29/2026	\$10,805,160
Federal Home Loan Bank (FHLB)	8/11/2023	0.55%	10/11/2024	\$11,272,320

(5) Accounts Receivable, Net

Accounts receivable, net of allowance for doubtful accounts, consists of the following as of June 30, 2023:

	Governmental Funds		Primary Government
	General Fund	Communications And Information Systems	Governmental Activities
Ambulance and other reimbursements	\$3,678,143	\$156,502	\$3,834,645
Fire prevention and late fees	655,917	-	655,917
Other/miscellaneous	<u>187,389</u>	-	<u>187,389</u>
Accounts receivable	4,521,449	156,502	4,677,951
Allowance for doubtful accounts	<u>(2,138,518)</u>	-	<u>(2,138,518)</u>
Accounts receivable, net	<u>\$2,382,931</u>	<u>\$156,502</u>	<u>\$2,539,433</u>

(6) Prepaid Costs, Other Assets, and Nonspendable Fund Balance of Governmental Funds

In January 2022, OCFA prepaid a portion of its Fiscal Year 2022/23 retirement contributions to the Orange County Employees Retirement System (OCERS) totaling \$33,262,203. In January 2023, OCFA prepaid a portion of its Fiscal Year 2023/24 retirement contributions to OCERS totaling \$30,499,241. In the governmental funds, the unamortized balance of the January 2022 prepayment totaled \$1,279,316 as of June 30, 2023, due to the timing of the pay period calendar. The entire amount of the January 2023 prepayment was unamortized as of June 30, 2023. In the governmental activities, a portion of Fiscal Year 2023/24 prepaid retirement contributions totaling \$14,077,000 is reported as a deferred outflow of resources related to pensions, since the contributions will reduce (increase) the net pension liability (asset) with OCERS prior to the Plan's next measurement date.

Other prepaid costs and assets as of June 30, 2023, included annual maintenance and support fees, subscriptions, professional memberships, warranties, insurance premiums, and deposits with the third-party administrator of an employee benefit flexible health spending program. Prepaid costs and other assets consist of the following as of June 30, 2023:

	Governmental Funds			Primary Government
	General Fund	Communications and Information Systems	Fire Apparatus	Governmental Activities
Prepaid costs:				
Retirement contributions:				
Fiscal Year 2023/24	\$30,499,241	\$ -	\$ -	\$16,422,241
Fiscal Year 2022/23	1,279,316	-	-	1,279,316
Maintenance and support	628,479	16,881	-	645,360
Subscriptions and memberships	37,838	-	-	37,838
Insurance	32,169	-	-	32,169
Warranties	-	-	8,708	8,708
Other	<u>65,839</u>	-	-	<u>65,839</u>
Total prepaid costs	32,542,882	16,881	8,708	18,491,471
Other assets:				
Health spending deposits	<u>29,544</u>	-	-	<u>29,544</u>
Total	<u>\$32,572,426</u>	<u>\$16,881</u>	<u>\$8,708</u>	<u>\$18,521,015</u>

Prepaid costs are reported as an asset until the expenditures are recognized proportionately over the future period in which the services are to be provided. An amount equal to the asset is reported as nonspendable fund balance in the governmental funds, since these amounts are not in a spendable form. As of June 30, 2023, nonspendable fund balance totaled \$32,568,471 and is reported in the General Fund (\$32,542,882), the Communications and Information Systems Fund (\$16,881), and the Fire Apparatus Fund (\$8,708).

(7) Due from Other Governments

Amounts due from other governments consist of the following as of June 30, 2023:

	Governmental Funds		Primary Government
	General Fund	Fire Stations and Facilities	Governmental Activities
FIRIS program	\$ 9,808,207	\$ -	\$ 9,808,207
Property tax and tax increment	7,336,559	-	7,336,559
State responsibility area	6,328,565	93,814	6,422,379
COVID-19 pandemic response	4,984,053	-	4,984,053
Assistance by hire (ABH) and activation claims	4,535,026	-	4,535,026
Grants	1,753,944	-	1,753,944
Cash contract charges	1,387,627	-	1,387,627
Airport rescue firefighting	941,032	-	941,032
Other	<u>11,140</u>	<u>-</u>	<u>11,140</u>
Due from other governments	37,086,153	93,814	37,179,967
Allowance for doubtful accounts	<u>(98,538)</u>	<u>-</u>	<u>(98,538)</u>
Due from other governments, net	<u>\$36,987,615</u>	<u>\$93,814</u>	<u>\$37,081,429</u>

(8) Lessor in Lease Agreement (Lease Receivables)

(a) General Information about the Lease

On March 24, 2011, OCFA entered into a Wireless Communications Facilities Site Lease with Vista Towers, LLC (Vista), to provide space at the OCFA-owned Regional Fire Operations and Training Center to install and operate a digital mobile radio communications site consisting of up to two wireless communication towers, equipment shelters, and cabinets, for up to six cell phone carriers (Cell Tower). In July 2015, the Board of Directors approved Vista’s request to assign its interest in the lease to SBA Towers VI, LLC (SBA). SBA assumed the payment terms of the original agreement, and is responsible for the installation, construction, maintenance, repairs, replacement, and operations of the towers and, if applicable, the removal of the towers upon termination of the lease.

The five-year lease term commenced on July 15, 2012. The lease may be renewed for up to four consecutive five-year increments, for a total of twenty-five years through July 15, 2037. Rent is due the first of each month and is determined based on the number of carriers being occupied by each tower. Initial base rent, which automatically increases by 3% annually, is \$1,250 for each month in which there is one or no carrier on one of the towers, and \$1,000 per month for each additional carrier occupied on each tower beyond the first carrier. OCFA began collecting base rent commencing July 15, 2012, with rent for a second and third carrier commencing in June and October 2013, respectively. Base rent for a fourth carrier commenced in December 2022. Adjusted monthly base rent as of June 30, 2023, was \$5,330 for the four carriers.

A remeasurement adjustment in the amount of \$95,599 increased the amount of the lease cell tower asset as of December 1, 2022. As of June 30, 2023, OCFA reported a lease receivable and a deferred inflow of resources totaling \$895,177, and \$839,179, respectively, in the General Fund and the primary government’s governmental activities. The deferred inflow of resources relating to leases will be recognized as a reduction of the lease receivable over the remaining term of the lease agreement. The lease receivable will be reduced as repayments are received. Principal and interest totaling \$38,599 and \$20,366, respectively, were received during the year ended June 30, 2023.

(b) Inflows of Resources

Inflows of resources recognized in Fiscal Year 2022/23 consisted of the following:

<u>Inflows of Resources</u>	<u>Amount</u>
Lease revenue	\$57,222
Interest revenue	<u>20,336</u>
Total	<u>\$77,558</u>

(9) Capital Assets

(a) Changes in Capital Asset Balances by Asset Class

Capital asset activity for the year ended June 30, 2023, was as follows:

<u>Primary Government/ Governmental Activities</u>	<u>Beginning Balances</u>	<u>Increases</u>	<u>Decreases</u>	<u>Transfers</u>	<u>Ending Balances</u>
Capital assets not depreciated/amortized:					
Land	\$ 42,757,850	\$ -	\$ -	\$ -	\$ 42,757,850
Construction in progress	977,546	1,568,988	-	(269,163)	2,277,371
Work in progress	<u>6,766,409</u>	<u>49,665,843</u>	-	<u>(4,351,813)</u>	<u>52,080,439</u>
Total capital assets not depreciated/amortized	<u>50,501,805</u>	<u>51,234,831</u>	-	<u>(4,620,976)</u>	<u>97,115,660</u>
Capital assets depreciated/amortized:					
Buildings	153,637,069	-	-	269,163	153,906,232
Right-to-use lease buildings	251,578	-	-	-	251,578
Equipment	72,217,955	1,224,047	(9,536,499)	559,788	64,465,291
Right-to-use lease equipment	174,672	18,711,118	-	-	18,885,790
Vehicles	115,626,214	1,160,719	(152,245)	3,792,025	120,426,713
Right-to-use lease land	<u>4,679,622</u>	-	-	-	<u>4,679,622</u>
Subtotal	<u>346,587,110</u>	<u>21,095,884</u>	<u>(9,688,744)</u>	<u>4,620,976</u>	<u>362,615,226</u>
Less accumulated depreciation/amortization:					
Buildings	(60,368,648)	(3,337,524)	-	-	(63,706,172)
Right-to-use lease buildings	(43,866)	(22,668)	-	-	(66,534)
Equipment	(50,668,407)	(3,621,346)	9,270,263	-	(45,019,490)
Right-to-use lease equipment	(174,672)	(12,474,096)	-	-	(12,648,768)
Vehicles	(66,647,848)	(6,152,484)	152,245	-	(72,648,087)
Right-to-use lease land	<u>(208,032)</u>	<u>(104,016)</u>	-	-	<u>(312,048)</u>
Subtotal	<u>(178,111,473)</u>	<u>(25,712,134)</u>	<u>9,422,508</u>	-	<u>(194,401,099)</u>
Total capital assets depreciated/amortized, net	<u>168,475,637</u>	<u>(4,616,250)</u>	<u>(266,236)</u>	<u>4,620,976</u>	<u>168,214,127</u>
Capital assets, net	<u>\$218,977,442</u>	<u>\$46,618,581</u>	<u>\$ (266,236)</u>	<u>\$ -</u>	<u>\$265,329,787</u>

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Component Unit/ OCFA Foundation	Beginning Balances	Increases	Decreases	Transfers	Ending Balances
Capital assets depreciated/amortized:					
Equipment	\$ 15,979	\$ -	\$ -	\$ -	\$ 15,979
Less accumulated depreciation/amortization:					
Equipment	(4,062)	(799)	-	-	(4,861)
Capital assets, net	<u>\$ 11,917</u>	<u>\$ (799)</u>	<u>-</u>	<u>-</u>	<u>\$ 11,118</u>

(b) Net Investment in Capital Assets

The portion of net position that is invested in capital assets as of June 30, 2023, is calculated as follows:

	Primary Government Governmental Activities	Component Unit OCFA Foundation
Total capital assets, net of accumulated depreciation/amortization	\$ 459,730,886	\$15,979
Accumulated depreciation/amortization	(194,401,099)	(4,861)
Net carrying value of capital assets	265,329,787	11,118
Outstanding principal of capital debt, limited to portion of the debt on which proceeds were expended for capital purposes:		
Master equipment lease/purchase agreement	(45,535,664)	-
Lease liabilities	(10,734,307)	-
Net investment in capital assets	<u>\$ 209,059,816</u>	<u>\$11,118</u>

(c) Depreciation/Amortization Expense

Depreciation/amortization expense in the amounts of \$25,712,134 and \$799 were charged to public safety in the Statement of Activities of the primary government and the component unit, respectively, for the year ended June 30, 2023.

(10) Unearned and Unavailable Revenue

Revenue amounts that have been collected but are *unearned* are reported as liabilities of both the governmental activities and the governmental funds. Revenue amounts that have been earned but are considered *unavailable* to finance the expenditures of the current fiscal period are reported as deferred inflows of resources of the governmental funds. Unearned and unavailable revenues consist of the following as of June 30, 2023:

	Governmental Funds General Fund	Primary Government Governmental Activities	Component Unit OCFA Foundation
Unearned revenue:			
Quick Reaction Force program cash advance	\$9,247,811	\$9,247,811	\$ -
Grant cash advance for mobile helicopter dip tank	96,454	96,454	-
Grant cash advance for CERT program	17,393	17,393	-
Cell tower rent – July 2023	5,411	5,411	-
Miscellaneous cash advances	<u>11,586</u>	<u>11,586</u>	<u>14,850</u>
Total	<u>\$9,378,655</u>	<u>\$9,378,655</u>	<u>\$14,850</u>
Unavailable revenue:			
City of Garden Grove start-up costs	<u>\$ 681,733</u>		
Total	<u>\$ 681,733</u>		

(11) Due to Other Governments

Amounts due to other governments consist of the following as of June 30, 2023:

	Governmental Funds	Primary Government
	General Fund	Governmental Activities
Pass-through payments for activations and exercises:		
City of Anaheim	\$3,751	\$3,751
City of Orange	<u>1,278</u>	<u>1,278</u>
Total	<u>\$5,029</u>	<u>\$5,029</u>

(12) Fund Balance of Governmental Funds – Restricted

Restricted fund balance consists of the following as of June 30, 2023:

Description of Restriction	Governmental Funds			
	General Fund	Fire Apparatus	Fire Stations and Facilities	Total
Capital improvement program:				
State funding for hand crew facility and equipment	\$ -	\$ -	\$16,931,500	\$16,931,500
Unspent debt proceeds from helicopter lease purchase agreement	-	12,530,156	-	12,530,156
CalFire contract revenues for capital projects	-	-	<u>710,060</u>	<u>710,060</u>
	-	<u>12,530,156</u>	<u>17,641,560</u>	<u>30,171,716</u>
Various departments:				
CalFire funding for greenhouse gas reduction	3,123,572	-	-	3,123,572
CalFire funding for surge firefighter staffing	450,610	-	-	450,610
CalFire funding for hand crew firefighter staffing	433,332	-	-	433,332
CalFire augmentation funding for upstaffing	354,161	-	-	354,161
CalFire augmentation funding for special projects	343,876	-	-	343,876
CalFire contract revenues for capital projects	<u>23,037</u>	-	-	<u>23,037</u>
	<u>4,728,588</u>	-	-	<u>4,728,588</u>
Section 115 pension trust:				
Irvine Settlement Agreement	<u>7,316,140</u>	-	-	<u>7,316,140</u>
	<u>7,316,140</u>	-	-	<u>7,316,140</u>
Total	<u>\$12,044,728</u>	<u>\$12,530,156</u>	<u>\$17,641,560</u>	<u>\$42,216,444</u>

Restricted fund balance includes resources accumulated from CalFire and other state funding that must be utilized for specific programs or projects, including staffing enhancements, new fire station development, or improvements to existing fire stations; unspent debt proceeds from the 2022 helicopter lease purchase agreement that must be utilized for acquiring and installing two helicopters, related equipment, and training; and amounts set aside in a Section 115 trust for pension obligations in accordance with the March 28, 2019, Settlement Agreement between OCFA and the City of Irvine.

(13) Fund Balance of Governmental Funds – Committed

In July 1999, the Board of Directors authorized that \$4,405,086 be set aside to fund OCFA-related service or resource enhancement projects in certain structural fire fund member agencies. The Board of Directors subsequently authorized additional amounts to be set aside for the same purpose in January 2012 (\$622,106), November 2017 (\$1,000,000), and March 2022 (\$3,428,054). As of June 30, 2023, the remaining unspent amount, plus accrued interest earnings, totaling \$3,519,541 was reported as a fund balance commitment in the General Fund. The funds are committed for projects in the following member agencies:

<u>Member Agency</u>	Governmental Funds
	<u>General Fund</u>
Aliso Viejo	\$ 53,342
Dana Point	12,203
Irvine	3,095,651
Laguna Hills	35,273
Laguna Niguel	269,477
Rancho Santa Margarita	20,332
San Juan Capistrano	967
Villa Park	<u>32,296</u>
Total	<u>\$3,519,541</u>

(14) Fund Balance of Governmental Funds – Assigned

Assigned fund balance includes the following as of June 30, 2023:

Capital Improvement Program	\$ 22,262,329
Workers' compensation	143,334,044
Intended for other specific purposes	<u>39,327,110</u>
Total	<u>\$204,923,483</u>

The Board of Directors has established a *Fund Balance Assignment Policy* authorizing the assignment of fund balance to the Capital Improvement Program and self-insured workers' compensation claims.

- The assignment to the Capital Improvement Program reflects cumulative amounts transferred from the General Fund to the capital projects funds, net of actual cumulative project expenditures and other revenue sources accounted for in those funds. The assignment may also include net resources accumulated within the General Fund itself to fund purchases and projects that are capital in nature but do not necessarily meet the criteria to be reported in one of OCFA's capital projects funds. The assignment may not exceed the net cost of future identifiable projects. Fund balance assigned for the Capital Improvement Program totaled \$22,262,329 as of June 30, 2023, and is reported in the General Fund (\$6,545,843), Communications and Information Systems Fund (\$5,597,631), Fire Apparatus Fund (\$5,012,707) and Fire Stations and Facilities Fund (\$5,106,148).
- The assignment to workers' compensation reflects the cumulative difference between actual workers' compensation expenditures incurred and budgeted costs, which are based on an annual actuarial valuation prepared by an external actuary and a confidence level set by the Board of Directors. The assignment for workers' compensation is reported in the General Fund and totaled \$143,334,044 as of June 30, 2023.

Assigned fund balance as of June 30, 2023, intended to be used by OCFA for other specific purposes, subject to change, totaled \$39,327,110 and is summarized below for each governmental fund:

Intended Use of Resources	Communications and Information Systems Communications/ IT Projects	Fire Apparatus Fire Apparatus and Vehicles	Fire Stations and Facilities Construction Projects
Fire Station No. 24 (Mission Viejo)	\$ -	\$ -	\$13,512,470
Mid-mount and rear mount trucks	-	10,762,666	-
Type 1 engines	-	3,905,753	-
Hazardous materials vehicles	-	1,941,261	-
Outfitting for 44 pickup trucks	-	1,342,606	-
Heavy rescue vehicle	-	947,488	-
RFOTC training ground improvements	-	-	633,066
Fuel truck	-	512,095	-
Mail trucks	-	318,616	-
Emergency medical services enterprise system	277,153	-	-
Dozer tenders	-	246,487	-
Infrastructure security enhancements	-	-	227,126
Crew cab stake side trucks	-	201,610	-
Enterprise audio visual upgrade	91,030	-	-
Data Center fire suppression system	40,127	-	-
Disaster recovery facility	14,562	-	-
Fire Station No. 12 (Laguna Woods)	-	-	6,250
Total	<u>\$422,872</u>	<u>\$20,178,582</u>	<u>\$14,378,912</u>

Intended Use of Resources	General Fund				
	Various Departments	Facilities Projects	Communications/ IT Projects	Construction Projects	Total
Station alarm system upgrades	\$ -	\$ -	\$1,069,872	\$ -	\$1,069,872
800 MHz radios	-	-	984,762	-	984,762
Heavy Rescue 6 tools and equipment	348,499	-	-	-	348,499
Freightliner water tender	318,997	-	-	-	318,997
Chest compression devices for basic life support (BLS) units	282,093	-	-	-	282,093
Urban Search & Rescue program services and supplies	173,130	-	-	-	173,130
Battery-powered ventilation fans	124,241	-	-	-	124,241
Communications and information technology supplies	108,493	-	-	-	108,493
Mobile helicopter dip tank	94,385	-	-	-	94,385
Golf carts and utility trailer	87,212	-	-	-	87,212
Station No. 41 (Air Operations) dorm repairs	-	-	-	73,400	73,400
Station bathroom gender compliance projects	-	-	-	69,339	69,339
Tree pest mitigation projects	65,120	-	-	-	65,120
Other	<u>247,586</u>	<u>232,727</u>	<u>62,221</u>	<u>4,667</u>	<u>547,201</u>
Total	<u>\$1,849,756</u>	<u>\$232,727</u>	<u>\$2,116,855</u>	<u>\$147,406</u>	<u>\$4,346,744</u>

(15) Fund Balance of Governmental Funds – Unassigned

Unassigned fund balance in the General Fund consists of the following as of June 30, 2023:

10% Operating Contingency calculation	\$41,776,013
Less: calculation in excess of total unassigned fund balance	<u>(15,050,779)</u>
10% Operating Contingency, adjusted	26,725,234
All other residual amounts available for any purpose	-
Total unassigned fund balance	<u>\$26,725,234</u>

The total amount of the 10% Operating Contingency calculation was \$41,776,013 as of June 30, 2023, which exceeded the General Fund’s total unassigned fund balance by \$15,050,779.

(16) Commitments and Contingencies

(a) Settlement Agreement

Effective March 28, 2019, OCFA and Irvine entered into a Settlement Agreement, which was amended December 4, 2019, to provide the following provisions benefiting the citizens of Orange County and enhancing services provided throughout OCFA’s jurisdiction:

- **Joint Police-Fire Training Facility** – Irvine will plan, develop, construct, operate, and maintain a joint training center, which will include a joint emergency operations center (collectively the Joint Training Facility) for use by the City and OCFA for no less than fifty years from completion of the facility’s construction. Irvine will contribute the land and will operate and maintain the real property that comprises the Joint Training Facility. In exchange for its use, OCFA will contribute \$20,500,000 to be used by Irvine toward the Joint Training Facility’s design, construction, furnishing, and the provision of fixtures or equipment for facilities. Upon Irvine’s execution of design contracts, OCFA will pay Irvine \$1,000,000 for the exclusive use of making payments on the design contracts and for other expenses relating to the design of the Joint Training Facility as mutually agreed upon by Irvine and OCFA. Upon Irvine’s execution of a construction contract, OCFA will pay Irvine additional amounts as follows: (1) a combined \$19,500,000 for the construction, furniture, fixtures, and equipment of the training center (\$18,500,000) and the emergency operations center (\$1,000,000); and (2) the cost of any facility enhancements OCFA requested during the design process that would cause OCFA’s total financial contributions to collectively exceed \$20,500,000.
- **Drone Program** – Irvine will establish and operate a program under which Irvine personnel will use drones to monitor open space areas in Irvine. Drones will be available to OCFA upon request to monitor open space or active fires or other hazards and disasters throughout OCFA’s jurisdictional boundaries. Irvine must certify on or prior to July 1, 2019, that it has established and budgeted for the Drone Program, including anticipated costs of personnel, equipment, space, and other direct costs, totaling at least \$500,000 per year. OCFA will pay Irvine \$500,000 annually on July 15 beginning July 15, 2019, and ending July 15, 2029. If Irvine has not provided the annual certification of program and budget as previously described by June 1 of any year, then OCFA’s annual payment will not be due until thirty days after such certification is provided. On or prior to May 1 each fiscal year beginning May 1, 2020, and ending May 1, 2030, Irvine will certify to OCFA the actual fiscal year-to-date costs incurred and anticipated costs to be incurred prior to the close of the fiscal year. If those costs are less than OCFA’s annual \$500,000 payment, the difference will be deducted from OCFA’s subsequent year payment. OCFA’s expenditures for Fiscal Year 2022/23 totaled \$500,000.
- **Bi-Directional Amplifiers** – OCFA will reimburse Irvine \$500,000 for the purchase and installation of bi-directional amplifiers at nine locations within Irvine’s municipal boundaries. Reimbursement payments will be made upon documentation that the amplifiers are installed and operating.
- **OCFA Training of Irvine Police Department (IPD) Emergency Medical Technicians (EMT)** – OCFA personnel will provide IPD personnel with EMT training at a cost to OCFA of \$50,000 per fiscal year through June 30, 2030.

Training will be provided as requested by IPD personnel and unused training sessions will not carry over to future fiscal years. OCFA’s obligation to provide EMT training commences on the latter of July 1, 2019, and the date IPD identifies personnel that are either specifically employed to serve as EMT’s for Irvine or that have EMT functions integrated into their job duties.

- **Public Safety Community Emergency Response Team (CERT) Coordinator** – OCFA will pay Irvine \$118,000 per fiscal year toward the cost of one Irvine-employed, full-time CERT Coordinator. Irvine must certify on or prior to July 1, 2019, that it has established and budgeted for a CERT Coordinator position, including anticipated costs of salary, benefit, and other direct costs, totaling at least \$118,000 per year. OCFA will pay Irvine \$118,000 annually on July 15 beginning July 15, 2019, and ending July 15, 2029. If Irvine has not provided the certification of program and budget as previously described by June 1, 2019, then the first payment will not be due to Irvine until thirty days after such certification is provided. On or prior to May 1 each fiscal year beginning May 1, 2020, and ending May 1, 2030, Irvine will certify to OCFA the actual fiscal year-to-date costs incurred and anticipated costs to be incurred prior to the close of the fiscal year. If those costs are less than OCFA’s annual \$118,000 payment, the difference will be deducted from OCFA’s subsequent year payment. OCFA’s expenditures for Fiscal Year 2022/23 totaled \$118,000.

- **Pension Funding Annual Deposits to 115 Trust** – OCFA will pay \$2,000,000 per year into an Internal Revenue Code Section 115 Trust (115 Trust) to be established with the Public Agency Retirement Services (PARS), the Orange County Employees Retirement System (OCERS), or another mutually-agreed upon administrator (Trust Administrator). On or prior to July 1, 2019, OCFA will establish the 115 Trust with the Trust Administrator. The annual \$2,000,000 115 Trust payment will be due on July 15 of each fiscal year beginning July 15, 2019, and ending July 15, 2029; however, if OCFA has not funded 85% of its pension liability as determined by OCERS by June 30, 2020, then the required 115 Trust payment will be reduced to \$1,500,000 per fiscal year until OCFA achieves the targeted 85% funding level. The \$500,000 reduction will instead be contributed to OCERS as an additional employer pension contribution. The first 115 Trust payment due on July 15, 2019, will not be reduced even if the 85% target funding has not been achieved. Sub-accounts will be established within the 115 Trust to attribute on a pro-rata basis portions of each payment to Structural Fire Fund members whose revenues were greater than the cost of providing fire services during the prior fiscal year. If OCFA is dissolved in the manner described in California Government Code Section 6508.2, then as part of the dissolution process OCFA will apportion retirement liabilities among all of its member agencies. The amounts deposited into the 115 Trust and attributed by sub-accounts will not be utilized in making this apportionment calculation. Upon completion of the apportionment calculation, the 115 Trust will be liquidated and the amounts used toward the satisfaction of the portion of liability assigned to such 115 Trust contributing members through the apportionment calculation. OCFA remitted payment(s) to the 115 Trust totaling \$2,000,000 during Fiscal Year 2022/23.

OCFA’s remaining financial commitment as of June 30, 2023, under the various provisions of the Settlement Agreement totals approximately \$39,676,000 over the remaining seven-year period July 1, 2023, through June 30, 2030, as summarized in the table below.

Settlement Agreement Service Enhancement	OCFA Financial Commitment	
	Ongoing Annual Costs	One-Time Costs
Joint Police-Fire Training Facility and Emergency Operations Center	\$ -	\$20,500,000
Drone Program	500,000	-
Bidirectional Amplifiers	-	500,000
OCFA Training of Irvine Police Department Emergency Medical Technicians	50,000	-
Public Safety Community Emergency Response Team (CERT) Coordinator	118,000	-
Pension Funding Annual Deposits to 115 Trust	<u>2,000,000</u>	<u>-</u>
Total original financial commitment	<u>\$ 2,668,000</u>	<u>\$21,000,000</u>
Total remaining OCFA financial commitment over eight fiscal years (Fiscal Year 2023/24 through Fiscal Year 2029/30)	\$18,676,000	\$21,000,000

(b) Commitments for Outstanding Encumbrances

As of June 30, 2023, commitments with vendors for outstanding encumbrances (unperformed purchase orders and contracts for goods and services) by major governmental fund are as follows:

General Fund	\$ 4,350,744
Communications and Information Systems	422,872
Fire Apparatus	20,178,582
Fire Stations and Facilities	<u>14,378,912</u>
Total outstanding encumbrances	<u>\$39,331,110</u>

Significant individual commitments with vendors as of June 30, 2023, are identified below.

<u>Fund / Vendor</u>	<u>Description</u>	<u>Original Commitment</u>	<u>Spent-to- Date</u>	<u>Remaining Commitment</u>
<i><u>General Fund:</u></i>				
Westnet	Alerting systems upgrades at various stations	\$1,797,945	\$759,002	\$1,038,943
Motorola Solutions, Inc.	Radios and accessories	984,762	-	984,762
PB Loader Corporation	Freightliner water tender	318,997	-	318,997
Stryker Sales Corporation	Lucas chest compression devices	282,093	-	282,093
LN Curtis & Sons	Rescue tools	277,394	77,041	200,353
Allstar Fire Equipment	Battery-powered ventilation fans	124,241	-	124,241
<i><u>Communications and Information Systems:</u></i>				
Firstwatch Solutions, Inc.	Data extraction and analytics	417,548	175,017	242,531
Apploon (The Murdock Corporation)	Urban Search & Rescue warehouse audio visual installation	298,231	207,201	91,030
<i><u>Fire Apparatus:</u></i>				
Sutphen Corporation	(3) Mid mount trucks	4,794,025	-	4,794,025
KME Fire Apparatus	(3) Rear mount trucks	4,476,481	-	4,476,481
KME Fire Apparatus	(4) Type 1 engines	3,111,642	-	3,111,642
Rosenbauer Minnesota, LLC	(2) Hazardous materials vehicles	1,941,261	-	1,941,261
KME Fire Apparatus	(1) Rear mount truck	1,492,160	-	1,492,160
Rosenbauer Minnesota, LLC	(1) Heavy rescue vehicle	947,488	-	947,488
KME Fire Apparatus	(1) Type 1 engine	794,111	-	794,111
Johnson Equipment Company	Radio consoles and rear command units	655,619	-	655,619
PB Loader Corporation	(1) Freightliner fuel truck	512,095	-	512,095
<i><u>Fire Stations and Facilities:</u></i>				
EC Constructors, Inc.	Design/build services for Fire Station No. 24 (Mission Viejo)	14,996,489	1,484,020	13,512,469
HMC Group	Architectural engineering and construction support for RFOTC training grounds expansion project	880,400	335,743	544,657

(c) Pending Litigation and Other Matters

Pending litigation and other matters as of June 30, 2023, include the following:

- On July 2, 2021, Cal/OSHA issued five citations to OCFA resulting from an accident that occurred on October 26, 2020. OCFA submitted its appeal of the citations on July 23, 2021. The Cal/OSHA Appeals Board has scheduled the next status conference on this matter for November 2023. If OCFA were to pay the citations as issued, the maximum amount of the potential loss would be \$90,500. A \$90,500 potential loss for this contingent legal matter is considered probable and has been recorded in the accompanying financial statements.
- OCFA is a defendant in a pending legal matter resulting from a 2021 automobile accident and personal injury claim brought forward by a member of the public. A jury trial in this matter is scheduled for December 2023. As of June 30, 2023, an unfavorable outcome in this case is reasonably possible based on discovery completed to-date. Financial exposure is estimated between \$250,000 and \$15 million, which exceeds OCFA's insurance coverage limits by \$5 million. A loss for this contingent legal matter has not been recorded in the accompanying financial statements.

(17) Interfund Transfers

Interfund transfers are used to move revenues from the fund required by statute or budget to collect them to the fund required by statute or budget to expend them. Interfund transfers for the year ended June 30, 2023, are as follows:

Fund	Transfers In	Transfers Out
General Fund	\$ 3,097,603	\$13,942,226
Communications and Information Systems	4,500,000	3,097,603
Fire Apparatus	<u>9,442,226</u>	-
Total	<u>\$17,039,829</u>	<u>\$17,039,829</u>

Transfers totaling \$13,942,226 were made from the General Fund to the Communications and Information Systems Fund (\$4,500,000) and the Fire Apparatus Fund (\$9,442,226), for current and future capital improvement projects identified in the Capital Improvement Plan.

Transfers totaling \$3,097,603 were made from the Communications and Information Systems Fund to the General Fund to fund the 10% Operating Contingency.

(18) Changes in Long-term Liabilities

Long-term liability activity for the year ended June 30, 2023, is summarized in the table below.

Primary Government/ Governmental Activities	Beginning Balances	Additions	Deletions	Ending Balances	Due Within One Year
Net pension liability:					
OCERS pension plan	\$ -	\$363,510,646	\$ (84,450,056)	\$279,060,590	\$ -
Extra Help pension plan	<u>49,576</u>	-	<u>(48,901)</u>	<u>675</u>	-
	49,576	363,510,646	(84,498,957)	279,061,265	-
Net OPEB liability	102,002,299	17,301,197	(7,703,732)	111,599,764	-
Compensated absences	20,241,600	19,755,791	(19,248,044)	20,749,347	4,730,160
Accrued claims and judgments for workers' compensation	127,833,360	27,202,953	(15,129,099)	139,907,214	16,558,042
Lease liabilities	4,894,651	18,711,118	(12,871,462)	10,734,307	5,886,589
Master equipment lease/purchase agreement	-	<u>57,882,120</u>	-	<u>57,882,120</u>	<u>2,770,492</u>
Total	<u>\$255,021,486</u>	<u>\$504,363,825</u>	<u>\$(139,451,294)</u>	<u>\$619,934,017</u>	<u>\$29,945,283</u>

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The master equipment lease/purchase agreement liability is liquidated by the Fire Apparatus Fund. All other long-term liabilities are normally liquidated by the General Fund.

(19) Compensated Absences

OCFA is obligated to its employees for accumulated earned but unused leave benefits as of June 30, 2023. Sick leave includes only those amounts that OCFA is obligated to reimburse employees at the end of their active service life. Leave balances by employee type are as follows as of June 30, 2023:

	<u>Vacation</u>	<u>Comp/Other</u>	<u>Sick Leave</u>	<u>Total</u>
Safety Members	\$12,482,448	\$209,508	\$ 2,182,268	\$14,874,224
General Members	<u>3,183,588</u>	<u>640,089</u>	<u>2,051,446</u>	<u>5,875,123</u>
Total	<u>\$15,666,036</u>	<u>\$849,597</u>	<u>\$4,233,714</u>	<u>\$20,749,347</u>

(20) Insurance and Accrued Claims and Judgments

(a) Insurance Coverage Limits

OCFA has purchased commercial insurance coverage for general and auto liabilities, and excess coverage for the self-insured workers compensation. Coverage limits for Fiscal Year 2022/23 included the following:

Property:

Real Property (Building)	Guaranteed Replacement Cost
Personal Property (Contents)	Per Schedule on File with the Carrier
Deductible	\$1,000 - \$5,000

Crime:

Employee Dishonesty	\$1,000,000
Forgery or Alteration	\$1,000,000
Faithful Performance of Duty	\$1,000,000
Computer Fraud	\$1,000,000
Deductible	\$1,000

Portable Equipment:

Valuation	Guaranteed Replacement Cost
Deductible	\$1,000

General Liability:

Each Occurrence	\$1,000,000
Personal and Advertising Injury	\$1,000,000
Fire Damage Legal Liability	\$1,000,000
Medical Expense (each accident)	\$10,000
Garage Keepers Liability	\$500,000
General Annual Aggregate	\$10,000,000

Management Liability:

Each Wrongful Act	\$1,000,000
General Annual Aggregate	\$10,000,000
Defense Expense Injunctive Relief	\$50,000
Deductible Each Wrongful Act	\$7,500

Automobile:

Bodily Injury or Property Damage	\$1,000,000
Uninsured/Underinsured Motorist	\$1,000,000
Automobile Physical Damage	Agreed Value on File with Carrier
Deductible	\$1,000 Passenger Vehicles; \$5,000 Apparatus

Cyber Liability:

First Party Liability	\$100,000
Third Party Liability	\$1,000,000

Umbrella (Excess) Liability:	
Each Occurrence or Wrongful Act	\$9,000,000
General Aggregate	\$20,000,000
Excess Workers Compensation	Statutory Limits

During Fiscal Year 2022/23, the deductible for management liability decreased from \$250,000 to \$7,500 per wrongful act, as compared to the prior fiscal year. Settlements have not exceeded coverage in each of the past three fiscal years.

(b) Workers' Compensation Self-Insurance

OCFA transitioned its program for workers' compensation insurance from Guaranteed Cost to Self-Insurance effective March 1, 2002. OCFA's self-insurance program covers workers' compensation claims up to \$50,000,000, subject to a \$2,000,000 self-insured retention (SIR) per incident. Workers' compensation claims in excess of the self-insured level are insured by the California State Association of Counties Excess Insurance Authority (CSAC-EIA) at statutory limits. OCFA utilizes the services of a third-party claims administrator for administration of workers' compensation claims.

As of June 30, 2023, accrued claims and judgments for workers' compensation totaled \$139,907,214 and were recorded as a long-term liability in the government-wide financial statements. This liability reflects the present value of estimated outstanding losses at the 50% confidence level, as determined by an actuarial valuation dated June 30, 2023, and includes claims that have been incurred but not yet reported (IBNR's). A confidence level is the statistical certainty that an actuary believes funding will be sufficient. For example, a 50% confidence level means that the actuary believes funding will be sufficient in five years out of ten. On May 27, 2010, the Board of Directors authorized to change the OCFA's confidence level from 80% to 50%. Changes in accrued claims and judgments relating to workers' compensation self-insurance for the years ended June 30, 2023 and 2022, are as follows:

Primary Government/ Governmental Activities	Fiscal Year Ended	
	June 30, 2023	June 30, 2022
Unpaid claims at beginning of fiscal year	\$127,833,360	\$115,295,275
Incurred claims (including IBNR's)	27,202,953	26,292,155
Claim payments	<u>(15,129,099)</u>	<u>(13,754,070)</u>
Unpaid claims at end of fiscal year	<u>\$139,907,214</u>	<u>\$127,833,360</u>
Due within one year	\$ 16,558,042	\$ 15,249,792
Due in more than one year	<u>123,349,172</u>	<u>112,583,568</u>
Unpaid claims at end of fiscal year	<u>\$139,907,214</u>	<u>\$127,833,360</u>
Confidence level at end of fiscal year	50%	50%
Discount rate	2%	2%

Because of the long-term nature of this liability, it is excluded from the OCFA's governmental fund financial statements under the modified accrual basis of accounting. However, OCFA has established a fund balance assignment for workers' compensation in the General Fund in the amount of \$143,334,044. This assignment reflects the cumulative difference for multiple years between actual expenditures and budgeted costs, which are based on the annual actuarial valuation. Actual expenditures for workers' compensation cases often occur over multiple years, attributing to the cumulative difference between budgeted costs and expenditures.

(21) Lessee in Lease Agreements (Lease Liabilities)

(a) General Information about the Leases

OCFA was obligated as a lessee under the following lease agreements during the year ended June 30, 2023:

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Lease Terms	Helicopter Tower	Copiers	Aircraft	Land Lease
Lessor	FW Aviation, LLC	Cell Business Equipment	Coulson Aviation (USA) Inc.	City of Fullerton
Purpose	Helicopter tower at Fullerton Airport for training and storage	RFOTC and fire station copiers and accessories	Aircraft for use in Quick Reaction Force Program (CH-47 Very Large Helitanker; S-61 Helitanker; S-76 Aerial Supervision Aircraft)	Real property land lease at Fullerton Airport
Major Class of Underlying Assets	Right-to-use lease buildings	Right-to-use lease equipment	Right-to-use lease equipment	Right-to-use lease land
Lease Date	August 25, 2011; Amended September 1, 2021	December 22, 2016; Amended April 1, 2022	June 23, 2022; Amended December 16, 2022	June 14, 2010
Initial Lease Term	Ten years commencing September 2011 through August 2021	Five years commencing April 2017 through March 2022	June 24, 2022 – December 31, 2023 (556 days), as amended	Forty years commencing January 2011 (Eastern Half) and July 2013 (Western Half) through December 2050
Optional Extended Lease Term	Ten-year option to extend for a total of twenty years through August 2031	Continue on a month-to-month basis for one year through March 2023	N/A	Fifteen-year option to extend for a total of fifty-five years through December 2065
Initial Lease Payment	Monthly payments totaling \$1,575 consisting of base rent (\$1,308) and common area (\$267)	Monthly payments totaling \$5,962	Boeing CH-47 \$33,600/day (June 24, 2022 – October 31, 2022) Sikorsky S-61 \$22,050/day (November 1, 2022 – December 6, 2022 substitute) Sikorsky S-76 \$10,500/day (July 1, 2022 – December 12, 2022)	Monthly payments of \$2,886 (Eastern Half) and \$2,070 (Western Half)
Amended Lease Payment	Monthly payments totaling \$1,755 consisting of base rent (\$1,480) and common area (\$285)	Month-to-month payments totaling \$5,500 plus taxes	Boeing CH-47 \$24,382/day (December 6, 2022 – December 31, 2023) Sikorsky S-61 \$24,386/day (December 7, 2022 – December 31, 2023 substitute) Sikorsky S-76 \$7,760/day (December 13, 2022 – December 31, 2023)	N/A

Lease Terms	Helicopter Tower	Copiers	Aircraft	Land Lease
Rent Increases	Base rent increases annually by \$18 for the first ten years. Base rent increases 2.5% per year beginning September 2022. Common area rent increases 5.0% beginning September 2022 and 3.0% annually beginning September 2023.	Pricing adjusted annually for any additional copiers or accessories added over the term of the lease	N/A	Increase annually by an amount equal to the change in the consumer price index, for a minimum of 3% to a maximum of 5%
Adjusted Lease Payment as of June 30, 2023	\$1,807 monthly	\$6,022 monthly	\$964,379 for June 2023	\$7,131 monthly
Due Date	Monthly on the 1 st	Monthly within 30 days of invoice	Billed weekly and due within 14 days from receipt of invoice	Payable monthly in advance on the 1 st
Implicit Rate	N/A	6.192%	N/A	N/A
Other Variable Payments Not Included in the Measurement of the Lease Liability	None	Per-copy overage fees billed quarterly at rate of \$.0049 (black/white) and \$.0443 (color)	Flight hours billed separately: Boeing CH-47 \$9,007 - \$10,462/hour; Sikorsky S-61 \$5,420 - \$6,083/hour; Sikorsky S-76 \$3,841 - \$3,969/hour	None

(b) Right-to-Use Lease Assets

Right-to-use lease assets included the following as of June 30, 2023:

Lease	Major Class of Underlying Assets	Amount of Lease Capital Assets	Accumulated Amortization
Helicopter tower	Right-to-use lease buildings	\$ 251,578	\$ 66,534
Copiers	Right-to-use lease equipment	174,672	174,672
Aircraft	Right-to-use lease equipment	18,711,118	12,474,096
Land lease	Right-to-use lease land	<u>4,679,622</u>	<u>312,048</u>
Total		<u>\$23,816,990</u>	<u>\$13,027,350</u>

A remeasurement adjustment in the amount of \$18,711,118 increased the amount of the lease aircraft asset during Fiscal Year 2022/23.

(c) Outflows of Resources for Variable Payments

Outflows of resources recognized in Fiscal Year 2022/23 for variable payments not included in the measurement of the lease liability consisted of the following:

Outflows of Resources	Amount
Copy overage and relocation fees	\$75,700
Aircraft flight hours	\$819,441

(d) Principal and Interest Requirements

Future principal and interest requirements to maturity for each lease liability as of June 30, 2023, are as follows:

Helicopter Tower			
Fiscal Year(s)	Principal	Interest	Total
2023/24	\$ 21,224	\$ 930	\$ 22,154
2024/25	21,906	822	22,728
2025/26	22,614	710	23,324
2026/27	23,340	594	23,934
2027/28	24,081	475	24,556
2028/29 - 2031/32	<u>81,318</u>	<u>672</u>	<u>81,990</u>
Total	<u>\$194,483</u>	<u>\$4,203</u>	<u>\$198,686</u>

Aircraft			
Fiscal Year(s)	Principal	Interest	Total
2023/24	<u>\$5,861,483</u>	<u>\$53,731</u>	<u>\$5,915,214</u>
Total	<u>\$5,861,483</u>	<u>\$53,731</u>	<u>\$5,915,214</u>

Land Lease			
Fiscal Year(s)	Principal	Interest	Total
2023/24	\$ 3,882	\$ 83,754	\$ 87,636
2024/25	6,613	83,663	90,276
2025/26	9,452	83,524	92,976
2026/27	12,432	83,328	95,760
2027/28	15,548	83,080	98,628
2028/29 - 2032/33	129,783	409,581	539,364
2033/34 - 2037/38	231,616	393,644	625,260
2038/39 - 2042/43	357,318	367,554	724,872
2043/44 - 2047/48	511,319	329,005	840,324
2048/49 - 2052/53	698,884	275,216	974,100
2053/54 - 2057/58	926,331	202,941	1,129,272
2058/59 - 2062/63	1,200,852	108,276	1,309,128
2063/64 - 2067/68	<u>574,311</u>	<u>5,973</u>	<u>580,284</u>
Total	<u>\$4,678,341</u>	<u>\$2,509,539</u>	<u>\$7,187,880</u>

(22) Master Equipment Lease/Purchase Agreement – 2022

On November 3, 2022, OCFA entered into a Master Equipment Lease/Purchase Agreement (Agreement) with Banc of America Public Capital Corp (Banc of America) for financing in the amount of \$57,882,120. Under the terms of the Agreement, the net debt proceeds were deposited into an escrow account at Wilmington Trust for the purpose of acquiring and installing two Sikorsky S-70M Type 1 Firehawk helicopters and related equipment, as well as for related training.

Under the terms of the Agreement, Banc of America leases the equipment to OCFA at an annual interest rate of 3.1379%. Rental payments are payable annually commencing January 10, 2024. Title to the equipment vests with OCFA during the term of the Agreement; accordingly, the lease has been recorded as a long-term liability OCFA. During the year ended June 30, 2023, OCFA made principal payments totaling \$0. The outstanding balance of master equipment lease/purchase agreement liability was \$57,882,120 as of June 30, 2023. The annual lease payment requirements as of June 30, 2023, are as follows:

Master Equipment Lease/Purchase Agreement

Fiscal Year	Principal	Interest	Total
2023/24	\$ 2,770,492	\$ 2,154,314	\$ 4,924,806
2024/25	3,195,458	1,729,348	4,924,806
2025/26	3,295,729	1,629,077	4,924,806
2026/27	3,399,145	1,525,661	4,924,806
2027/28	3,505,807	1,418,999	4,924,806
2028/29	3,615,816	1,308,990	4,924,806
2029/30	3,729,276	1,195,530	4,924,806
2030/31	3,846,297	1,078,509	4,924,806
2031/32	3,966,990	957,816	4,924,806
2032/33	4,091,470	833,336	4,924,806
2033/34	4,219,857	704,949	4,924,806
2034/35	4,352,272	572,534	4,924,806
2035/36	4,488,842	435,964	4,924,806
2036/37	4,629,697	295,109	4,924,806
2037/38	<u>4,774,972</u>	<u>149,834</u>	<u>4,924,806</u>
Total	<u>\$57,882,120</u>	<u>\$15,989,970</u>	<u>\$73,872,090</u>

During Fiscal Year 2022/23, OCFA recognized the following debt-funded expenditures in the Fire Apparatus Fund:

Description	Issuance Costs	Helicopters and Related Equipment	Training	Total
80% progress payment	\$ -	\$44,697,584	\$ -	\$44,697,584
Performance bond	-	838,080	-	838,080
Financial advisor	22,592	-	-	22,592
Special legal counsel	15,500	-	-	15,500
Other fees	5,000	-	-	5,000
Training courses	-	-	<u>\$97,635</u>	<u>97,635</u>
Total	<u>\$43,092</u>	<u>\$45,535,664</u>	<u>\$97,635</u>	<u>\$45,676,391</u>

The escrow account had a balance of \$12,579,350 as of June 30, 2023. The helicopters and related equipment have been capitalized as work in progress in the government-wide financial statements since they have not yet been placed into service.

(23) Summary of Pension Plans and Other Postemployment Benefits (OPEB)

OCFA participates in two defined benefit pension plans that are administered through a trust or equivalent arrangement. Additional plan information is provided within these notes as Note 24 and Note 25. OCFA also provides other postemployment benefits (OPEB) through the Retiree Medical Plan. Additional plan information is provided within these notes as Note 26. Following is a summary of plan balances as of and for the year ended June 30, 2023:

Description	Net Pension/ OPEB Liability	Deferred Outflows of Resources Related to Pensions/ OPEB	Deferred Inflows of Resources Related to Pensions/ OPEB	Pension/ OPEB Expense (Credit)
OCERS Pension Plan	\$279,060,590	\$228,140,263	\$ 51,603,321	\$59,281,387
Extra Help Pension Plan	<u>675</u>	<u>1,051</u>	-	<u>(47,932)</u>
Subtotal	279,061,265	228,141,314	51,603,321	59,233,455
OPEB	<u>111,599,764</u>	<u>39,970,864</u>	<u>94,874,302</u>	<u>(23,871,945)</u>
Total	<u>\$390,661,029</u>	<u>\$268,112,178</u>	<u>\$146,477,623</u>	<u>\$35,361,510</u>

(24) Retirement Plan for Full-Time Employees

(a) General Information about the Plan

Plan Description and Administration

OCFA participates in the Orange County Employees Retirement System (OCERS), a cost-sharing multiple-employer, defined benefit pension plan for the County of Orange, the City of San Juan Capistrano, and thirteen other agencies – Orange County Cemetery District; Orange County Children and Families Commission; Orange County Department of Education; Orange County Employees Retirement System; Orange County Fire Authority (OCFA); Orange County In-Home Supportive Services Public Authority; Orange County Local Agency Formation Commission; Orange County Public Law Library; Orange County Sanitation District; Superior Court of California; Orange County Transportation Authority; Transportation Corridor Agencies; and the University of California, Irvine Medical Center and Campus. The Orange County Department of Education and the University of California, Irvine Medical Center and Campus are closed to new member participation and only the latter has remaining active employees. Capistrano Beach, Cypress Recreation & Parks District, Orange County Vector Control District, and the City of Rancho Santa Margarita are no longer active plan sponsors, but retired members and their beneficiaries, as well as deferred members, remain in the OCERS system. OCERS is legally and fiscally independent of the County of Orange.

OCERS was established in 1945 under the provisions of the County Employees Retirement Law of 1937. OCERS is governed by a ten-member Board of Retirement, including nine voting members and one alternate member. Board membership consists of four members appointed by the County of Orange Board of Supervisors and five members elected by the members of the pension system – two by the general members, two by the safety members (one voting and one alternate), and one by the retired members. The County of Orange Treasurer-Tax Collector, who is elected by the voters registered in the county, serves as an ex-officio member. The OCERS Board of Retirement is responsible for establishing policies governing the administration of the retirement plan; making disability determinations; assuring benefit payments; establishing investment policy for the retirement system; and monitoring execution of its policies. OCERS issues a publicly available financial report that includes financial statements and required supplementary information for the cost-sharing plans that are administered by OCERS. The report can be obtained from OCERS at 2223 Wellington Avenue, Santa Ana, California 92701.

Benefits Provided

OCERS provides retirement, disability, and death benefits to safety and general members. Safety membership includes those members serving in active law enforcement, fire suppression, and as probation officers. General membership applies to all other occupations. Plan retirement benefits are tiered based upon date of OCERS membership. Tier I members were hired prior to September 21, 1979, and use their highest one-year average salary to determine their retirement allowance. Tier II members were hired on or after September 21, 1979, and use their highest three-year average salary to determine their retirement allowance. Member rate groups are determined by employer, bargaining unit, and benefit plan. The benefit plan represents the benefit formula and tier that will be used in calculating a retirement benefit. All regular employees scheduled to work twenty hours or more per week become members of the plan upon commencing employment with one of OCERS' plan sponsors, with the exception of a provision adopted in 2014 that allows new members over the age of 65 to opt out of the plan. Active members are vested in OCERS upon accumulating five years of accredited service or attaining the age of 70.

On September 12, 2012, California Governor Brown signed Assembly Bill 340, which created the California Public Employees' Pension Reform Act of 2012 (PEPRA) and amended sections of the 1937 Act under which OCERS operates. The law created a benefit tier for new employees entering public agency employment and public retirement system membership, effective January 1, 2013. One of the many changes brought about by PEPRA involved new retirement formulas for newly hired employees who do not establish reciprocity with OCERS. Another change brought about by PEPRA requires employees who do not establish reciprocity to pay 50% of the normal retirement costs from the beginning of their employment.

In general, the retirement benefits received by members are determined by plan formula, age at retirement, years of service, and final average salary. Members are entitled to receive a retirement allowance upon reaching the following years of service and age criteria:

Years of Service Credit	Eligible Age
10 or more	Age 50
5 or more (PEPRA Members)	Age 50
30 or more (General Members)	Any age
20 or more (Safety Members)	Any age
5 or more, and at least 10 years of active employment with a sponsoring agency covered by OCERS (Part-time Members)	Age 55
Any	Age 70

Retired member monthly allowances are adjusted annually in accordance with changes in the cost-of-living, as determined by the average annual change in the Consumer Price Index (CPI) for the prior calendar year. The cost-of-living adjustment is limited to a maximum increase or decrease of three percent per year as established by the OCERS Board of Retirement.

The OCFA's Board establishes and amends benefit plan formulas for active OCFA members through negotiations with its labor bargaining units. The provisions and benefits provided by OCFA to its safety and general members as of June 30, 2023, are summarized below:

Benefits Provided to Safety Members					
Plan	Tier	Benefit Formula	Representation / Bargaining Unit / Employee Hire Date		
			Orange County Professional Firefighters Association	Orange County Fire Authority Chief Officers Association	Unrepresented
			Firefighter Unit	Fire Management Unit	Executive Management in Safety Positions
F	II	3.0% at 50	Prior to 7/1/2012	Prior to 7/1/2012	Prior to 7/1/2011
R	II	3.0% at 55	On or After 7/1/2012 (with reciprocity)	On or After 7/1/2012 (with reciprocity)	On or After 7/1/2011 (with reciprocity)
V	II	2.7% at 57 (PEPRA)	On or After 1/1/2013 (without reciprocity)	On or After 1/1/2013 (without reciprocity)	On or After 1/1/2013 (without reciprocity)

Benefits Provided to General Members					
Plan	Tier	Benefit Formula	Representation / Bargaining Unit / Employee Hire Date		
			Orange County Employees Association	Orange County Fire Authority Managers Association	Unrepresented
			General and Supervisory Management	Administrative Management	Executive Management in General Positions
J	II	2.7% at 55	Prior to 7/1/2011	Prior to 12/1/2012	Prior to 12/1/2012
N	II	2.0% at 55	On or After 7/1/2011 (with reciprocity)	On or After 12/1/2012 (with reciprocity)	On or After 12/1/2012 (with reciprocity)
U	II	2.5% at 67 (PEPRA)	On or After 1/1/2013 (without reciprocity)	On or After 1/1/2013 (without reciprocity)	On or After 1/1/2013 (without reciprocity)

Contributions

Each year, an actuarial valuation is performed for OCERS to determine funding contributions for each agency member within their assigned rate group and plan on an actuarial basis. The actuarially determined rate is the estimated amount necessary to finance the cost of benefits earned by employees during the year, with an additional amount to finance any unfunded actuarial accrued liability (UAAL). The table below summarizes OCFA's required employer contribution rates and employee rates (remitted by OCFA) for the year ended June 30, 2023:

FY 2022 / 2023
Annual Comprehensive Financial Report

Category	Plan	Tier	Benefit Formula	Employer Contribution Rates			Employee Contribution Rates (See Below)
				Normal Cost	UAAL	Total	
Safety	F	II	3.0% at 50	27.31%	16.36%	43.67%	14.66% - 21.08%
Safety	R	II	3.0% at 55	27.25%	16.36%	43.61%	14.48% - 20.82%
Safety	V	II	2.7% at 57 (PEPRA)	15.11%	16.36%	31.47%	12.57% - 20.22%
General	J	II	2.7% at 55	15.22%	11.49%	26.71%	9.87% - 17.10%
General	N	II	2.0% at 55	16.83%	11.49%	28.32%	7.70% - 14.56%
General	U	II	2.5% at 67 (PEPRA)	9.82%	11.49%	21.31%	7.78% - 15.04%

Employees in each unit have agreed through their respective Memorandums of Understanding or Personnel and Salary Resolution to pay their full employee share of retirement costs. The retirement payment is deducted from the employee's compensation earnable and continues throughout the employee's entire term of employment with OCFA. Employee contribution rates vary depending on the individual employee's hire date and unit and are summarized below for the year ended June 30, 2023.

Employee Hire Date	Benefit Formula	Employee Contribution Rate
<i>Safety – Firefighter Unit</i>		
Prior to 1/1/2011	3.0% at 50	50% of Normal Cost [^] , Less a 2% Health Care Converted Retirement Contribution (HCRC)
1/1/2011 - 6/30/2012	3.0% at 50	50% of Normal Cost [^]
On or After 7/1/2012 (with reciprocity)	3.0% at 55	
On or After 1/1/2013 (without reciprocity)	2.7% at 57 (PEPRA)	50% of Normal Cost [^]
<i>Safety – Firefighter Management Unit</i>		
Prior to 7/1/2012	3.0% at 50	50% of Normal Cost [^]
On or After 7/1/2012 (with reciprocity)	3.0% at 55	
On or After 1/1/2013 (without reciprocity)	2.7% at 57 (PEPRA)	50% of Normal Cost [^]
<i>Safety – Executive Management</i>		
Prior to 7/1/2011	3.0% at 50	50% of Normal Cost [^]
On or After 7/1/2011 (with reciprocity)	3.0% at 55	
On or After 1/1/2013 (without reciprocity)	2.7% at 57 (PEPRA)	50% of Normal Cost [^]
<i>General – General and Supervisory Management</i>		
Prior to 7/1/2011	2.7% at 55	50% of Normal Cost [^]
On or After 7/1/2011 (with reciprocity)	2.0% at 55	
On or After 1/1/2013 (without reciprocity)	2.5% at 67 (PEPRA)	50% of Normal Cost [^]
<i>General – Administrative Management</i>		
Prior to 12/1/2012	2.7% at 55	50% of Normal Cost [^]
On or After 12/1/2012 (with reciprocity)	2.0% at 55	
On or After 1/1/2013 (without reciprocity)	2.5% at 67 (PEPRA)	50% of Normal Cost [^]
<i>General – Executive Management</i>		
Prior to 12/1/2012	2.7% at 55	50% of Normal Cost [^]
On or After 12/1/2012 (with reciprocity)	2.0% at 55	
On or After 1/1/2013 (without reciprocity)	2.5% at 67 (PEPRA)	50% of Normal Cost [^]

[^] Capped at maximum employee contribution as required by OCERS

For the year ended June 30, 2023, employer and employee contributions remitted to OCERS were as follows:

	Employer Contributions	Employee Contributions	Total Contributions
Contributions paid (credited) by OCFA	\$84,450,056	\$ -	\$ 84,450,056
Contributions paid by employees	-	29,155,069	29,155,069
Total	<u>\$84,450,056</u>	<u>\$29,155,069</u>	<u>\$113,605,125</u>

(b) Pension Liabilities, Pension Expenses, and Deferred Outflows/Inflows of Resources

OCFA's net pension liability (asset) with OCERS is measured as the proportionate share of the net pension liability (asset). The net pension liability (asset) of each member agency is measured as of December 31, 2022, and the total pension liability (asset) for each member agency used to calculate the net pension liability (asset) was determined by an actuarial valuation as of December 31, 2021, rolled forward to December 31, 2022, using standard update procedures. OCFA's proportion of the net pension liability (asset) was based on a projection of OCFA's long-term share of contributions to the pension plan relative to the projected contributions of all participating agencies, actuarially determined.

OCFA's proportionate share of the total OCERS net pension liability (asset) as of June 30, 2023 and 2022 was as follows:

Member Type	OCFA's Proportionate Share of the Total OCERS Net Pension Liability (Asset)					
	At June 30, 2022		Increase (Decrease)		At June 30, 2023	
	Amount	% of Total	Amount	% of Total	Amount	% of Total
Safety	\$ (91,979,085)	(4.5%)	\$333,484,029	9.0%	\$241,504,944	4.5%
General	(12,928,328)	(0.6%)	50,483,974	1.3%	37,555,646	0.7%
Total	<u>\$(104,907,413)</u>	<u>(5.1%)</u>	<u>\$383,968,003</u>	<u>10.3%</u>	<u>\$279,060,590</u>	<u>5.2%</u>

For the year ended June 30, 2023, OCFA recognized pension expense (credit) of \$59,281,387. At June 30, 2023, OCFA reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between actual and expected experience in the Total Pension Liability	\$ 44,228,199	\$(21,455,804)
Changes in assumptions	1,263,564	(30,147,517)
Net differences between projected and actual earnings on plan investments	<u>126,908,500</u>	-
	172,400,263	(51,603,321)
Employer contributions subsequent to measurement date	<u>55,740,000</u>	-
Total	<u>\$228,140,263</u>	<u>\$(51,603,321)</u>

Deferred outflows of resources related to contributions subsequent to the measurement date totaling \$55,740,000 will be recognized as a reduction of (addition to) the net pension liability (asset) in the year ended June 30, 2024. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will also be recognized as an adjustment to pension expense as follows:

Year Ended June 30	Amount
2024	\$(12,576,483)
2025	14,217,846
2026	33,349,071
2027	83,817,228
2028	<u>1,989,280</u>
Total	<u>\$120,796,942</u>

(c) Actuarial Assumptions

The total pension liability in the December 31, 2021, actuarial valuation was determined using the following actuarial assumptions:

Valuation Date	December 31, 2021	
Measurement Date	December 31, 2022, rolled forward on an actuarial basis	
Actuarial Cost Method	Entry age actuarial cost method (normal)	
Discount rate	7.00%	
Inflation	2.50%	
Investment rate of return	7.00%, net of pension plan investment expense, including inflation	
Salary increases	Across the board salary increases of 0.50%, adjusted for inflation at 2.5% per year, plus merit and promotion increases that vary by type and years of service, including 1.60% - 12.0% (Safety) and 1.00% - 8.00% (General)	
Date of experience study	Actuarial assumptions were based on the results of an experience study for the period January 1, 2017 through December 31, 2019.	
Mortality:	Safety	General
• Healthy	Pub-2010 Safety Retiree Amount-Weighted Above-Median Mortality Table (male and female), projected generationally with the two-dimensional mortality improvement scale MP-2019	Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Table (male and female) with rates increased by 5%, projected generationally with the two-dimensional mortality improvement scale MP-2019
• Disabled	Pub-2010 Safety Disabled Retiree Amount-Weighted Mortality Table (male and female), projected generationally with the two-dimensional mortality improvement scale MP-2019	Pub-2010 Non-Safety Disabled Retiree Amount-Weighted Mortality Table (male and female) with rates decreased by 5%, projected generationally with the two-dimensional mortality improvement scale MP-2019
• Beneficiaries	Pub-2010 General Contingent Survivor Amount-Weighted Above-Median Mortality Table (male and female) with rates increased by 5%, projected generationally with the two-dimensional mortality improvement scale MP-2019.	

The Pub-2010 mortality tables and adjustments as shown above reflect the mortality experience as of the measurement date. The generational projection is a provision for future mortality improvement.

Discount Rate

The discount rate used to measure the Total Pension Liability was 7.00% and 7.00% as of December 31, 2022, and December 31, 2021, respectively. The projection of cash flows used to determine the discount rate assumed plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the actuarially determined contribution rates. For this purpose, only employer contributions that are intended to fund benefits for current plan members and their beneficiaries are included. Projected employer contributions that are intended to fund the service costs for future plan members and their beneficiaries, as well as projected contributions from future plan members, are not included. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments for current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability as of December 31, 2022, and December 31, 2021.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which expected future real rates of return (expected returns, net of inflation) are developed for each major asset class. These returns are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage, adding expected inflation, and subtracting expected investment expenses and a risk margin.

The target allocation (approved by the OCERS Retirement Board) and projected arithmetic real rates of return for each major asset class, after deducting inflation but before deducting investment expenses, used in the derivation of the long-term expected investment rate of return assumption are summarized in the following table:

Asset Class	Target Allocation	Long-term Expected Real Rate of Return
Large Cap Equity	23.10%	5.43%
Small Cap Equity	1.90%	6.21%
International Developed Equity	13.00%	6.67%
Emerging Markets Equity	9.00%	8.58%
Core Bonds	9.00%	1.10%
High Yield Bonds	1.50%	2.91%
TIPS	2.00%	0.65%
Emerging Market Debt	2.00%	3.25%
Corporate Credit	1.00%	0.53%
Long Duration Fixed Income	2.50%	1.44%
Real Estate	3.01%	4.42%
Private Equity	13.00%	9.41%
Value Added Real Estate	3.01%	7.42%
Opportunistic Real Estate	0.98%	10.18%
Energy	2.00%	9.68%
Infrastructure (Core Private)	1.50%	5.08%
Infrastructure (Non-Core Private)	1.50%	8.92%
CTA – Trend Following	2.50%	2.38%
Global Macro	2.50%	2.13%
Private Credit	2.50%	5.47%
Alternative Risk Premia	<u>2.50%</u>	2.50%
Total	<u>100.0%</u>	

Sensitivity of the Net Pension Liability (Asset) to Changes in the Discount Rate

The following presents OCFA's proportionate share of the net pension liability (asset) with OCERS, calculated using the discount rate of 7.00%, as well as what OCFA's proportionate share of the net pension liability (asset) would be if it were calculated using a discount rate that is one percentage point lower (6.00%) or one percentage point higher (8.00%) than the current rate.

	1% Decrease (6.00%)	Current Discount Rate (7.00%)	1% Increase (8.00%)
Total proportionate share of net pension liability (asset)	<u>\$628,822,571</u>	<u>\$279,060,590</u>	<u>\$(6,229,556)</u>

(d) Pension Plan Fiduciary Net Position

Detailed information about the pension plan's fiduciary net position is available in the separately issued OCERS financial report.

(25) Retirement Plan for Part-Time Employees

(a) General Information About the Plan

Plan Description and Administration

OCFA administers the Extra Help Retirement Plan (Plan), a single-employer defined benefit pension plan that provides retirement benefits for its less than half-time and extra help employees. The Plan was established on January 1, 1997,

and is accounted for in the Extra Help Retirement Plan fiduciary fund. The Board establishes and amends all Plan provisions, and has the authority to change contribution rates and investment types. A separate, audited pension plan report is not available. Effective July 1, 2018, the Plan is closed to new entrants and all eligible extra help employees hired by OCFA are enrolled as participants in a 457(OBRA) Deferred Compensation Plan in lieu of the Extra Help Retirement Plan.

Benefits Provided

The Plan provides retirement benefits in the form of a lifetime annuity. Retirement benefits are calculated at the rate of 2% of career earnings during the first thirty years of credited service. Upon retirement, participants are eligible to receive their benefit either as a lump sum payment or as a monthly payment. If employment with OCFA is terminated prior to retirement and the value of the employee’s contributions with interest is \$3,500 or less, the employee may receive an immediate lump sum distribution in lieu of any future benefits payable under the Plan. If the value of the terminated employee’s contributions with interest exceeds \$3,500, the employee may elect to receive a lump sum distribution or leave the contributions on deposit until he or she reaches retirement age. During the year ended June 30, 2023, there were six lump sum distributions totaling \$33,302 made to participants. Currently, there are no participants collecting retirement benefits.

Plan Membership

As of June 30, 2023, Plan membership consisted of the following:

Plan Members (or Beneficiaries)	Balance as of June 30, 2023		
	\$3,500 or Less	More than \$3,500	Total
Inactive; currently receiving benefits	-	-	-
Inactive; entitled to but not yet receiving benefits	31	1	32
Active	-	-	-
Total	<u>31</u>	<u>1</u>	<u>32</u>

Contributions

All eligible half-time and extra help employees hired on or after January 1, 1997, are required to contribute a percentage of compensation corresponding to an age-based table included in the Plan. Age is determined as attained age on every January 1. Employee contributions rates range from 2.5% to 7.5% based on age. After 30 years of credited service, OCFA is responsible for the employee’s Plan contributions. As of June 30, 2023, there are no longer any active participants contributing to the Plan.

Cumulative employee contributions are credited with 5% interest compounded semi-annually. Any interest earnings credited to the Plan in excess of actual investment earnings are reported as employer contributions. During the year ended June 30, 2023, employer contributions totaled \$540.

(b) Investments

Method Used to Value Investments

All Plan assets are invested in the Local Agency Investment Fund (LAIF), which is reported based on OCFA’s pro-rata share of the fair value provided by LAIF for the entire LAIF portfolio (in relation to the amortized cost of that portfolio).

Investment Policy

Contributions are deposited into OCFA’s Local Agency Investment Fund (LAIF), which is regulated by California Government Code Section 16429 under the oversight of the Treasurer of the State of California and the Pooled Money Investment Board. Additional LAIF information is provided within these notes as Note 4(d).

Concentrations

All Plan assets are invested in the Local Agency Investment Fund (LAIF).

(c) Net Pension Liability

Net pension liability is measured as the total pension liability, less the pension plan’s fiduciary net position. The Plan’s fiduciary net pension liability is measured as of June 30, 2023, using an actuarial valuation as of January 1, 2023, rolled forward to June 30, 2023, using standard update procedures. A summary of components of the Plan’s net pension liability as of June 30, 2023, is shown below, followed by principal assumptions and methods used to determine the net pension liability.

Total pension liability	\$19,233
Plan fiduciary net position	<u>(18,558)</u>
Net pension liability	<u>\$ 675</u>
Plan fiduciary net position as a % of the total pension liability	96.49%

Actuarial Assumptions

Actuarial calculations reflect a long-term perspective. Calculations are based on the benefits provided under the terms of the Plan in effect at the time of each valuation and on the pattern of sharing of costs between the OCFA and plan members to that point. Actuarial valuations of an ongoing plan involve estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future. Actuarially determined amounts are subject to continual revision as results are compared to past expectations and new estimates are made about the future. The total pension liability in the January 1, 2023, actuarial valuation was determined using the following actuarial assumptions:

Valuation Date	January 1, 2023
Measurement Date	June 30, 2023, rolled forward on an actuarial basis
Actuarial Cost Method	Entry age normal
Discount rate	3.90% per annum; average (rounded to 5 basis points) of three 20-year municipal bond rate indices as of June 30, 2023: S&P Municipal Bond 20-Year High Grade Rate Index, Bond-Buyer 20-Bond GO Index, and 20-Year Yield of the Fidelity Municipal General Obligation AA Curve
Inflation	2.75%
Investment rate of return	3.90%
Mortality	PubS2010 mortality table with generational improvements based on the MP-2021 scale. As the plan is not large enough to have credible experience, mortality assumptions are set to reflect general population trends.
Experience study	Given the size of the plan, there was not enough data available to conduct a credible experience study. The assumptions are not anticipated to produce significant cumulative actuarial gains or losses over time. Liabilities and data are analyzed each year in order to identify any trends of experience deviating from the actuarial assumptions.
Form of payment	Participants who have 5 years or less of credited service or have a contribution balance less than or equal to \$3,500 are assumed to take an immediate lump sum upon termination or retirement. Participants who have worked more than 5 years or have attained age 55 are assumed to commence a modified cash refund annuity starting at age 65. As the plan is not large enough to have credible experience, forms of payment are based on professional judgment and expectations based on the provisions of the plan.
Retirement	100% retirement at age 65. Due to the size of the plan, use of an assumption more than a single point estimate is not merited.

Termination	Service 0 years, Rate 30%; Service 1-3 years, Rate 50%; Service 4 years, Rate 25%; Service 5+ years, Rate 5%
Plan Assets	The employee contributions are deposited into the Authority's LAIF account. The LAIF account is managed by the State Treasurer's Office and is invested in fixed income securities.

Changes of Assumptions

Following is a comparison of actuarial assumptions for the years ended June 30, 2023 and 2022:

	As of June 30, 2023	As of June 30, 2022	Change
Discount rate	3.90%	3.75%	0.15%
Inflation	2.75%	2.75%	n/a
Investment rate of return	3.90%	3.75%	0.15%
Salary increases	n/a	3.00%	n/a

Discount Rate

The discount rate used to measure the total pension liability was 3.90% (an increase of 0.15% since the prior measurement date). The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rate and that contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rate. Professional judgment on future contributions has been applied in those cases where contribution patterns deviate from the actuarially determined rates. Based on those assumptions, the Plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Rate of Return

The long-term expected rate of return on pension plan investments was determined using a building-block method in which expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These expected future real rates of return are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the pension plan's target asset allocation as of June 30, 2023, are summarized in the following table:

Asset Class	Target Allocation	Long-term Expected Real Rate of Return
Local Agency Investment Fund	100.00%	3.90%

The annual money-weighted rate of return was 3.45%, and was an estimate based on mid-year timing of contributions and benefit payments. The money rated rate of return expresses investment performance, net of pension plan investment expenses, adjusted for changing amounts actually invested.

(d) Changes in the Net Pension Liability

Changes in the Plan's net pension liability for the year ended June 30, 2023, were as follows:

	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability/ (Asset)
Balance at June 30, 2022	<u>\$99,730</u>	<u>\$50,154</u>	<u>\$49,576</u>
Changes in the year:			
Interest	3,115	-	3,115
Differences between expected and actual experience	(50,185)	-	(50,185)
Changes of assumptions	(125)	-	(125)
Contributions – employer	-	540	(540)
Net investment income	-	1,166	(1,166)
Benefit payments, including refunds of employee contributions	<u>(33,302)</u>	<u>(33,302)</u>	<u>-</u>
Net changes	<u>(80,497)</u>	<u>(31,596)</u>	<u>(48,901)</u>
Balance at June 30, 2023	<u>\$19,233</u>	<u>\$18,558</u>	<u>\$ 675</u>

Sensitivity of the Net Pension Liability to Changes in the Discount Rate

The following presents the net pension liability (asset), calculated using the discount rate of 3.90%, as well as what the net pension liability (asset) would be if it were calculated using a discount rate that is one percentage point lower (2.90%) or one percentage point higher (4.90%) than the current rate:

	1% Decrease (2.90%)	Current Discount Rate (3.90%)	1% Increase (4.90%)
Net pension liability	<u>\$1,556</u>	<u>\$675</u>	<u>\$(112)</u>

(e) Pension Expense and Deferred Outflows/Inflows of Resources

For the year ended June 30, 2023, OCFA recognized pension expense (credit) of \$(47,932). At June 30, 2023, OCFA reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between actual and expected experience in the Total Pension Liability	\$ -	\$ -
Changes in assumptions	-	-
Net differences between projected and actual earnings on plan investments	<u>1,051</u>	<u>-</u>
Total	<u>\$1,051</u>	<u>\$ -</u>

Amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized as an adjustment to pension expense as follows:

<u>Year Ended June 30</u>	<u>Amount</u>
2024	\$ 462
2025	376
2026	193
2027	<u>20</u>
Total	<u>\$1,051</u>

Annual Comprehensive Financial Report

(f) Pension Plan Fiduciary Net Position

As previously mentioned, the Plan does not issue a separate stand-alone financial report. Below are the Plan’s financial statements as of and for the year ending June 30, 2023.

	<u>Extra Help Retirement</u>
Assets:	
Cash and investments:	
Local Agency Investment Fund:	
Domestic fixed income	\$18,558
Total assets	<u>18,558</u>
Net position restricted for pensions	<u>\$18,558</u>
Additions:	
Contributions:	
Employer	\$ 540
Total contributions	<u>540</u>
Net investment income:	
Total investment income	<u>1,166</u>
Total net investment income	<u>1,166</u>
Total additions	<u>1,706</u>
Deductions:	
Benefits and refunds paid to plan members and beneficiaries	<u>33,302</u>
Total deductions	<u>33,302</u>
Change in net position	(31,596)
Net position, beginning of year	<u>50,154</u>
Net position, end of year	<u>\$18,558</u>

(26) Other Postemployment Benefits (OPEB)

(a) General Information

Plan Description and Administration

OCFA provides other postemployment benefits (OPEB), such as healthcare benefits to eligible retirees and their dependents, through the Retiree Medical Plan (Plan). The purpose of the Plan is to assist employees hired prior to January 1, 2007, in maintaining health insurance coverage following their retirement by providing a monthly grant applied toward the cost of such health insurance coverage. The Plan is intended to qualify for the exclusion from income as an accident or health plan under sections 105(e) and 106 of the Internal Revenue Code. Employee participation is contingent on a contribution of 4% of base salary through payroll deductions to OCFA. OCFA has entered into Memorandum of Understanding with each of its four labor bargaining groups mandating this 4% employee contribution.

The single-employer Plan was established by OCFA’s Board of Directors on January 1, 1997, and amended on September 28, 2006. OCFA’s Board of Directors is the Plan’s Board, establishing and amending all Plan provisions, including benefit terms and contribution requirements, through negotiations with labor bargaining groups. OCFA may terminate the Plan by action of its Board of Directors in its sole discretion. Amendment or termination of the plan is subject to the meet and confer requirement of the Myers-Milias-Brown Act and any other applicable law.

Plan assets are held in an irrevocable trust for the exclusive benefit of Plan participants and are administered by the Orange County Employees Retirement System (OCERS). Funds are held in a trust account established pursuant to Section

401(h) of the Internal Revenue Code and are held separate from the assets of the OCERS retirement system, except for investment purposes. The trust is presented in accordance with the Plan year, which is on a calendar basis ending December 31, 2022. The Plan's Statement of Fiduciary Net Position and Statement of Changes in Fiduciary Net Position (presented within the Fiduciary Funds of these financial statements) are reported as of the December 31, 2022 plan year-end date. A publicly available OCERS financial report, which includes the Plan's assets, can be obtained at 2223 Wellington Avenue, Santa Ana, California 92701. A separate, audited OPEB Plan report is not available.

All retirees and full-time employees hired on or after January 1, 2007, are not considered Plan participants; however, they are eligible to receive OPEB benefits in the form of employer contributions toward monthly healthcare premiums per the Public Employees' Medical and Hospital Care Act (PEMHCA). OCFA provides health insurance benefits to its employees and retirees through the California Public Employees' Retirement System (CalPERS), subject to the legal requirements of the PEMHCA. OCFA contributes toward the monthly payment of healthcare premiums on behalf of eligible retirees at an amount equal to the PEMHCA statutory minimum, which was \$149 for 2022 and \$151 for 2023. In addition, retirees and full-time employees hired on or after January 1, 2007, are eligible to participate in an employer-sponsored defined contribution plan. Additional information regarding the defined contribution benefit is provided within these notes as Note 27.

Eligibility

All full-time or part-time employees who were hired prior to January 1, 2007, and who are credited with at least one year (2,080 hours) of service are eligible to participate in the Plan. An eligible employee, and his or her surviving dependents, will participate in the Plan upon his or her retirement or other termination of employment with OCFA, subject to the terms and conditions contained in the Plan, as applicable for "covered retirees" and "covered former employees."

- A "covered retiree" is a retiree who receives a monthly retirement allowance from the Orange County Employees Retirement System (OCERS) and who meets all coverage and participation requirements.
- A "covered former employee" is an employee who meets the coverage and participation requirements of the Plan at the time of his or her termination of employment with OCFA.

An employee who retires and does not immediately begin receiving a retirement allowance from OCERS will not participate in the Plan until such retirement allowance commences. An employee who terminates employment with OCFA for reasons other than retirement, or who is not eligible to receive a monthly retirement allowance from OCERS, will not be eligible to receive the grant until the age of fifty-five (55) and requests that OCFA commence distribution of the grant. Such requests must be made no later than ninety (90) days from the employee's fifty-fifth birthday.

To be eligible to receive the grant, a participant must be covered under a "qualified health plan" (covered retirees), a "recognized health insurance plan" (covered former employees), or Medicare. A "qualified health plan" is a health insurance plan made available to OCFA's employees and retirees, including an OCFA health plan or a plan administered by an employee organization that the OCFA has agreed will be a "qualified health plan." A "recognized health insurance plan" means a health insurance plan other than a "qualified health plan" covering a former employee or his/her surviving dependents and which is acceptable to OCFA.

Participation of a covered retiree, a covered former employee, or his or her surviving dependents may be terminated as follows:

- Participation of a covered retiree and his or her surviving dependents will cease and eligibility for benefits will be terminated upon the earlier of (a) the failure to elect coverage under a "qualified health plan" or Medicare; (b) failure to make all required contributions or premium payments under a "qualified health plan;" (c) the participant's death; (d) amendment of the Plan to preclude such coverage; or (e) termination of the Plan.
- Participation of a covered former employee and his or her surviving dependents will cease and eligibility for benefits will be terminated upon the earlier of (a) the failure or refusal to maintain and provide proof of

coverage under a “recognized health insurance plan” or Medicare; (b) the participant’s death; (c) amendment of the Plan to preclude such coverage; or (d) termination of the Plan.

If participation in the Plan is terminated, eligibility will be extinguished, years of service will be lost, and he or she may not later again participate in the Plan.

Benefit Provisions

The Plan provides a grant toward the cost of retirees’ health insurance coverage. The grant is equal to the product of the monthly grant amount multiplied by years of credited service, up to a maximum of twenty-five years.

- The amount of the monthly grant is adjusted annually by the average increase or decrease in OCFA’s health plan premiums, not to exceed 5% per year. The amount of the monthly grant was as follows for calendar years 2021 through 2023:

<u>Calendar Year</u>	<u>Monthly Grant Amount</u>	<u>% Increase</u>
2023	\$31.77	3.9%
2022	\$30.59	5.0%
2021	\$29.13	5.0%

- The grant is applied as a credit or reimbursement to reduce the cost of the retiree’s or former employee’s monthly medical insurance premium under his or her selected health plan. If the grant amount exceeds the cost of such coverage, it may be used to offset the cost of the Medicare premium. In no case may the grant exceed the actual cost of the combined health plan and Medicare premiums.
- A surviving dependent of an eligible retiree or former employee is eligible to receive a monthly survivor benefit equal to 50% of the grant that the retiree or covered former employee was eligible to receive at the time of his or her death. A surviving dependent is (a) a surviving spouse who was legally married to an employee, retiree, or covered former employee at the time of his or her death; or (b) a dependent child, as defined by an OCFA health plan or health plan of a covered former employee, of a deceased employee, retiree, or covered former employee.

Plan Membership

The Retiree Medical Plan is closed to new entrants. Plan membership consisted of the following at December 31, 2022, the date of the latest actuarial valuation:

<u>Plan Membership Status</u>	<u>Retiree Medical Plan (Hired Prior to January 1, 2007)</u>	<u>PEMHCA Eligible Employees (Hired on or After January 1, 2007)</u>	<u>Total</u>
Inactive plan members or beneficiaries currently receiving benefit payments	902	5	907
Inactive plan members entitled to but not yet receiving benefit payments	29	-	29
Active plan members	<u>314</u>	<u>1,207</u>	<u>1,521</u>
Total	<u>1,245</u>	<u>1,212</u>	<u>2,457</u>

Contributions

Current, active employees who became employed by OCFA prior to January 1, 2007, are required to contribute 4% of their base salary through payroll deductions to OCFA, to be applied as employee contributions to the Plan, per the terms of the Plan, Memorandums of Understanding between OCFA and each of its four labor bargaining groups, and the

Personnel and Salary Resolution covering unrepresented employees. Employee participation in the Plan is contingent on this 4% payroll deduction.

At the time the Plan was implemented and subsequently amended in 2006, all OCFA classifications received a salary range adjustment, which was earmarked for the required employee contribution. Employees were not given the option to receive the salary increase as cash payment. Required employee withholdings contributed to the Plan are considered employer contributions for tax purposes, because OCFA as the employer maintains the tax-exempt status for the Plan. However, these contributions are considered employee contributions for financial reporting purposes.

OCFA may also make additional employer contributions to the Plan in amounts authorized to be contributed by the Board of Directors or as required by the following contractual agreements:

- OCFA has entered into a Health Plan Agreement with the Orange County Professional Firefighters Association (OCPFA) to contribute toward health benefits (including medical, dental, vision, life, and disability insurance benefits) for each actively employed member of the Firefighter Bargaining Unit. Any “excess fund balance” as determined by an annual calculation is credited toward OCFA’s monthly contribution. OCFA must then contribute an amount equal to the “excess fund balance” to its own Retiree Medical Plan.
- In September 2013, the Board approved several strategies, referred to as the “Snowball Plan,” to accelerate funding OCFA’s pension liability with the Orange County Employees Retirement System (OCERS). In November 2016, the Board modified the funding target for its pension liability from 100% to 85% and directed that any “Snowball Plan” dollars be redirected to the Retiree Medical Plan after achieving the 85% target. In August 2019, OCFA formalized its commitment to its “Snowball Plan” with the 4th Amendment to the Joint Powers Authority Agreement, which requires the Board to appropriate funds to its budget annually consistent with, or greater than, the budgetary payments called for in the “Snowball Plan,” except for instances of fiscal hardship defined as a substantial reduction in OCFA’s anticipated revenues and/or a significant increase in anticipated expenses that are beyond the reasonable control of the Board.

OCFA’s employer contributions to the Plan were as follows:

Type of Employer Contribution	Measurement Period Ending December 31, 2022	Fiscal Year Ending June 30, 2023
OCPFA Health Plan Agreement, Section 5	\$1,303,183	\$ 6,999,438
Snowball Plan	-	17,787,217
PEMHCA premiums paid directly by OCFA	<u>8,354</u>	<u>9,914</u>
Total cash contributions	1,311,537	24,796,569
Implicit subsidy	<u>1,927,231</u>	<u>1,742,170</u>
Total	<u>\$3,238,768</u>	<u>\$26,538,739</u>

(b) Plan Investments

Investment Policy

OCERS serves as trustee for the Plan’s assets as established under Internal Revenue Code Section 401(h). Health care assets for the 401(h) trusts are commingled with OCERS’ pension trust assets for investment purposes and are used exclusively to pay health benefits to OCFA’s eligible Plan members.

State Street Bank and Trust maintains custody of the majority of OCERS’ investments. The acquisition of investments is authorized by state statute and OCERS’ Investment Policy Statement. The allocation of investment assets is approved by OCERS’ Board of Retirement, as outlined in its Investment Policy Statement, and assets are invested solely for the benefit of plan participants and beneficiaries while attempting to minimize employer contributions and investment and administration costs. The Investment Policy Statement calls for an asset allocation plan that seeks to optimize long-term returns for the level of risk that the Board of Retirement considers appropriate. The Board of Retirement conducts a periodic review of the asset allocation plan to maintain an optimal allocation, and may also revise the asset allocation in

response to significantly changing market conditions that may affect valuations and forward-looking expected returns of asset classes.

Investments are reported at fair value, in accordance with Governmental Accounting Standards Board (GASB) Statement No. 72 *Fair Value Measurement and Application*. Plan investments consist of domestic, international and global equity securities; domestic fixed income; real estate; diversified credit; emerging markets equity and debt; real return strategies; absolute return strategies; and private equity. OCERS is authorized by its investment policy and state law to lend its investment securities, including global public equities, core fixed income, credit, and real assets to brokers/dealers in exchange for collateral in the form of either cash or securities.

The following was the Board of Retirement’s adopted asset allocation plan as of December 31, 2022:

<u>Asset Class</u>	<u>Target Allocation</u>
Global Equities	47.0%
Private Equities	13.0%
Real Assets	12.0%
Fixed Income	11.0%
Risk Mitigation	10.0%
Credit	<u>7.0%</u>
Total	<u>100.0%</u>

Concentrations

Concentration of credit risk is the risk of loss attributed to the magnitude of OCERS’ investment in a single issuer. By policy, OCERS did not hold investments in any one issuer that represented five percent (5%) or more of net position and net investments during the year ended December 31, 2022. Investments issued or explicitly guaranteed by the U.S. Government and pooled investments are excluded from this policy requirement.

Rate of Return

For the year ended December 31, 2022, the annual money-weighted rate of return on OCERS’ plan assets, net of investment expense, was -7.9%. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the timing of cash flows and the changing amounts actually invested.

(c) Net OPEB Liability

Components of the Net OPEB Liability

Net OPEB liability is measured as the total OPEB liability, less the Plan’s fiduciary net position. The Plan’s fiduciary net position is measured as of December 31, 2022, using an actuarial valuation as of December 31, 2022, rolled forward to December 31, 2022, using standard update procedures. A summary of components of the Plan’s net OPEB liability as of the measurement date is shown below, followed by principal assumptions and methods used to determine the net OPEB liability.

Total OPEB liability	\$162,613,799
Plan fiduciary net position	<u>(51,014,035)</u>
Net OPEB liability	<u>\$111,599,764</u>
Plan fiduciary net position as a % of the total OPEB liability	31.37%

Actuarial Assumptions

The total OPEB liability in the December 31, 2022, actuarial valuation was determined using the following actuarial assumptions:

Valuation Date	December 31, 2022																																								
Measurement Date	December 31, 2022																																								
Actuarial Cost Method	Entry age normal																																								
Discount Rate	7.00%																																								
Investment Rate of Return	7.00%																																								
Payroll Growth	3.00% per year plus OCERS merit scale																																								
Inflation Rate	2.00%																																								
Funding Policy and Retiree Contributions	<ul style="list-style-type: none"> • Partially prefund benefits through 4% employee contributions through a 401(h) account held in trust with OCERS • Intend to contribute additional snowball contributions based off of the pension plan's funded status • Retiree contributions are assumed to increase according to health care trend rates. 																																								
Healthcare Coverage Election Rate (Participation Rates)	100% of active and inactive employees eligible for the Plan grant are assumed to elect medical coverage at retirement. 35% of active employees eligible for the PEMHCA minimum required contribution are assumed to elect to continue coverage through PEMHCA at retirement.																																								
Spouse Coverage	Spouses are assumed for two-party and family coverage of current retirees. For future retirees, 65% of males and 25% of females are assumed to elect spousal coverage at retirement. Male spouses are assumed to be three years older than female spouses.																																								
Mortality	Mortality rates (for general and safety employees/retirees and surviving spouses) from the SOA Pub-2010 Headcount Weighted Mortality Tables for General, Public Safety, and Continuing Survivor projected fully generational using Scale MP-2021																																								
Turnover Rate	<p>Termination rates are based on rates used by the most recent OCERS actuarial valuation and represent the probability of voluntary and involuntary termination prior to meeting the minimum retirement eligibility for retiree healthcare coverage in the next twelve months. Employees who terminate are assumed to elect to receive benefits at the later of current age or first age eligible to receive grant benefits as a terminated employee (age 55).</p> <table style="margin-left: 40px; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;"><u>Years of Service</u></th> <th style="text-align: center;"><u>General</u></th> <th style="text-align: center;"><u>Safety</u></th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">0</td> <td style="text-align: center;">11.00%</td> <td style="text-align: center;">4.25%</td> </tr> <tr> <td style="text-align: center;">5</td> <td style="text-align: center;">4.50%</td> <td style="text-align: center;">1.25%</td> </tr> <tr> <td style="text-align: center;">10</td> <td style="text-align: center;">2.50%</td> <td style="text-align: center;">0.80%</td> </tr> <tr> <td style="text-align: center;">15</td> <td style="text-align: center;">1.40%</td> <td style="text-align: center;">0.55%</td> </tr> <tr> <td style="text-align: center;">20+</td> <td style="text-align: center;">0.75%</td> <td style="text-align: center;">0.15%</td> </tr> </tbody> </table>	<u>Years of Service</u>	<u>General</u>	<u>Safety</u>	0	11.00%	4.25%	5	4.50%	1.25%	10	2.50%	0.80%	15	1.40%	0.55%	20+	0.75%	0.15%																						
<u>Years of Service</u>	<u>General</u>	<u>Safety</u>																																							
0	11.00%	4.25%																																							
5	4.50%	1.25%																																							
10	2.50%	0.80%																																							
15	1.40%	0.55%																																							
20+	0.75%	0.15%																																							
Future Accruals	Current active employees are assumed to earn one year of service for each future year.																																								
Retirement Rate	<p>Retirement rates are based on the rates used by the most recent OCERS actuarial valuation as of December 31, 2021. Sample rates include:</p> <table style="margin-left: 40px; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;"><u>Age</u></th> <th style="text-align: center;"><u>General</u> <u><30 Years of</u> <u>Service</u></th> <th style="text-align: center;"><u>General</u> <u>30+ Years of</u> <u>Service</u></th> <th style="text-align: center;"><u>Safety</u> <u><30 Years of</u> <u>Service</u></th> <th style="text-align: center;"><u>Safety</u> <u>30+ Years of</u> <u>Service</u></th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">45-49</td> <td style="text-align: center;">0.0%</td> <td style="text-align: center;">0.0%-30.0%</td> <td style="text-align: center;">2.0%</td> <td style="text-align: center;">10.0%</td> </tr> <tr> <td style="text-align: center;">50-54</td> <td style="text-align: center;">2.0%-7.0%</td> <td style="text-align: center;">4.0%-14.0%</td> <td style="text-align: center;">4.0%-12.0%</td> <td style="text-align: center;">10.0%-25.0%</td> </tr> <tr> <td style="text-align: center;">55-59</td> <td style="text-align: center;">9.0%-12.0%</td> <td style="text-align: center;">18.0%-30.0%</td> <td style="text-align: center;">12.0%-18.0%</td> <td style="text-align: center;">25.0%-30.0%</td> </tr> <tr> <td style="text-align: center;">60-64</td> <td style="text-align: center;">11.0%-16.0%</td> <td style="text-align: center;">20.0%-24.0%</td> <td style="text-align: center;">18.0%</td> <td style="text-align: center;">30.0%-35.0%</td> </tr> <tr> <td style="text-align: center;">65-69</td> <td style="text-align: center;">22.0%-24.0%</td> <td style="text-align: center;">27.5%-30.0%</td> <td style="text-align: center;">100.0%</td> <td style="text-align: center;">100.0%</td> </tr> <tr> <td style="text-align: center;">70-74</td> <td style="text-align: center;">20.0%-25.0%</td> <td style="text-align: center;">27.5%</td> <td style="text-align: center;">100.0%</td> <td style="text-align: center;">100.0%</td> </tr> <tr> <td style="text-align: center;">75+</td> <td style="text-align: center;">100.0%</td> <td style="text-align: center;">100.0%</td> <td style="text-align: center;">100.0%</td> <td style="text-align: center;">100.0%</td> </tr> </tbody> </table>	<u>Age</u>	<u>General</u> <u><30 Years of</u> <u>Service</u>	<u>General</u> <u>30+ Years of</u> <u>Service</u>	<u>Safety</u> <u><30 Years of</u> <u>Service</u>	<u>Safety</u> <u>30+ Years of</u> <u>Service</u>	45-49	0.0%	0.0%-30.0%	2.0%	10.0%	50-54	2.0%-7.0%	4.0%-14.0%	4.0%-12.0%	10.0%-25.0%	55-59	9.0%-12.0%	18.0%-30.0%	12.0%-18.0%	25.0%-30.0%	60-64	11.0%-16.0%	20.0%-24.0%	18.0%	30.0%-35.0%	65-69	22.0%-24.0%	27.5%-30.0%	100.0%	100.0%	70-74	20.0%-25.0%	27.5%	100.0%	100.0%	75+	100.0%	100.0%	100.0%	100.0%
<u>Age</u>	<u>General</u> <u><30 Years of</u> <u>Service</u>	<u>General</u> <u>30+ Years of</u> <u>Service</u>	<u>Safety</u> <u><30 Years of</u> <u>Service</u>	<u>Safety</u> <u>30+ Years of</u> <u>Service</u>																																					
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Healthcare Cost Trend Rates	The initial trend rates are based on a combination of employer history, national trend surveys, and professional judgment. The final trend rate was selected based on historical medial CPI information.																																								

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Healthcare Cost Trend Rates, (Continued)	Fiscal Year	CalPers	Fiscal Year	Non-CalPers	Fiscal Year	Non-CalPers
	<u>Ending</u>	<u>Rates</u>	<u>Ending</u>	<u>(Pre-65)</u>	<u>Ending</u>	<u>(Post-65)</u>
	2023	6.50%	2023	7.00%	2023	6.50%
	2024	6.25%	2024	6.75%	2024	6.25%
	2025	6.00%	2025	6.50%	2025	6.00%
	2026	5.75%	2026	6.25%	2026	5.75%
	2027	5.50%	2027	6.00%	2027	5.50%
	2028	5.25%	2028	5.75%	2028	5.25%
	2029	5.00%	2029	5.50%	2029	5.00%
	2030	4.75%	2030	5.25%	2030	4.75%
	2031+	4.50%	2031	5.00%	2031+	4.50%
			2032	4.75%		
			2033+	4.50%		
Medical Grant Amount	Assumed 5% annual increase					
Minimum Required Contribution (PEMHCA)	Assumed 4% annual increase					
Per Capita Costs	Based on the premiums and funding rates furnished by OCFA. Safety employees are underwritten with the active and retirees pooled together, thus an implied rate subsidy has been estimated and is included in the valuation. The rate subsidy equals the difference between the estimated cost and the actual premium for coverage. General employees are assumed to participate in a community-rated plan. This valuation includes the liability for the implied subsidy. The expected retiree cost for both Safety and General employees is determined using unisex morbidity rates.					
Actuarial Value of Assets	Market Value					

Changes of Assumptions

Following is a comparison of changes in actuarial assumptions as of December 31, 2022 and 2021:

	<u>As of December 31, 2022</u>	<u>As of December 31, 2021</u>	<u>Change</u>
Payroll growth	3.00%	3.25%	(0.25%)
Inflation rate	2.00%	2.75%	(0.75%)
Twenty-year bond rate	1.94% - 4.09% Range	1.84% - 2.25% Range	0.10% to 1.84% Range
Healthcare trend rates	7.00% (2023) decreasing by 0.25% annually to 4.5% (2033+)	6.25% (2023) decreasing by 0.5% annually to 4.5% (2030+)	0.75% initial rate; 0.25% annual decrease

Discount Rate

The final equivalent single discount rate used to measure the total OPEB liability was 7.00% (no change since the prior measurement date). This discount rate assumes that OCFA continues to fund OPEB benefits and reflects OCFA's "Snowball Plan" contributions now being directed toward the Retiree Medical Plan first starting in 2021. Based on these assumptions and including these contributions, the Plan's fiduciary net position is expected to be able to pay for all future OPEB benefits.

Rate of Return

The long-term expected rate of return on OPEB plan investments was determined using a building-block method in which expected future real rates of returns (expected returns, net of OPEB plan investment expense and inflation) are developed for each major asset class. These expected future real rates of return are then combined to produce the long-term expected rate of return by weighting them based on the target asset allocation percentage and adding in expected inflation (2.00%). The best estimates of arithmetic real rates of return for each major asset class included in the OPEB Plan's target allocation as of December 31, 2022, are summarized in the following table:

Asset Class	Target Allocation	Long-term Expected Real Rate of Return
Global Public Equities	47.0%	8.0%
Private Equities	13.0%	10.0%
Fixed Income	11.0%	3.0%
Credit	7.0%	2.0%
Real Assets	12.0%	6.0%
Risk Mitigation	<u>10.0%</u>	5.0%
Total	<u>100.0%</u>	7.0%

The annual money-weighted rate of return was -7.9%.

(d) Changes in the Net OPEB Liability

Changes in the Plan's net OPEB liability for the year ended June 30, 2023, were as follows:

	Total OPEB Liability	Plan Fiduciary Net Position	Net OPEB Liability
Balance at June 30, 2022	<u>\$161,448,565</u>	<u>\$59,446,266</u>	<u>\$102,002,299</u>
Changes in the year:			
Service cost	2,461,230	-	2,461,230
Interest on the total OPEB liability	11,178,022	-	11,178,022
Difference between expected and actual experience	(5,289,751)	-	(5,289,751)
Changes in assumptions	1,408,587	-	1,408,587
Contributions – employer	-	3,238,768	(3,238,768)
Contributions – plan members	-	1,628,619	(1,628,619)
Net investment income (loss)	-	(4,683,124)	4,683,124
Benefit payments, including refunds of employee contributions	(8,592,854)	(8,592,854)	-
Administrative expense	-	(23,640)	23,640
Net changes	<u>1,165,234</u>	<u>(8,432,231)</u>	<u>9,597,465</u>
Balance at June 30, 2023	<u>\$162,613,799</u>	<u>\$51,014,035</u>	<u>\$111,599,764</u>

Sensitivity of the Net OPEB Liability to Changes in the Discount Rate

The following presents the net OPEB liability, calculated using the current discount rate of 7.00%, as well as what the net OPEB liability would be if it were calculated using a discount rate that is one percentage point lower (6.00%) or one percentage point higher (8.00%) than the current discount rate:

	1% Decrease (6.00%)	Current Discount Rate (7.00%)	1% Increase (8.00%)
Net OPEB liability	<u>\$134,041,757</u>	<u>\$111,599,764</u>	<u>\$94,281,458</u>

Sensitivity of the Net OPEB Liability to Changes in the Healthcare Cost Trend Rates

The following presents the net OPEB liability, calculated using the current healthcare cost trend rates (7.0% decreasing to 4.5%), as well as what the net OPEB liability would be if it were calculated using rates that are one percentage point lower (6.0% decreasing to 3.5%) or one percentage point higher (8.0% decreasing to 5.5%) than the current rates:

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	1% Decrease (6.0% decreasing to 3.5%)	Current Healthcare Cost Trend Rates (7.0% decreasing to 4.5%)	1% Increase (8.0% decreasing to 5.5%)
Net OPEB liability	<u>\$105,045,349</u>	<u>\$111,599,764</u>	<u>\$117,809,189</u>

(e) OPEB Expense and Deferred Outflows/Inflows of Resources Related to OPEB

For the year ended June 30, 2023, OCFA recognized OPEB expense (credit) of \$(23,871,945). At June 30, 2023, OCFA reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between actual and expected experience in the total OPEB liability	\$ 286,329	\$(15,224,923)
Changes in assumptions	10,233,084	(79,649,379)
Net differences between projected and actual earnings on plan investments	<u>3,880,956</u>	<u>-</u>
	14,400,369	(94,874,302)
Contributions subsequent to measurement date	<u>25,570,495</u>	<u>-</u>
Total	<u>\$39,970,864</u>	<u>\$(94,874,302)</u>

Deferred outflows of resources related to contributions subsequent to the measurement date totaling \$25,570,495 will be recognized as a reduction of the net OPEB liability in the year ended June 30, 2024. All other amounts reported as deferred outflows of resources and deferred inflows of resources related to OPEB will also be recognized as an adjustment to OPEB expense as follows:

Year Ended June 30	Amount
2024	\$(37,118,652)
2025	(46,169,069)
2026	1,065,823
2027	<u>1,747,965</u>
Total	<u>\$(80,473,933)</u>

(f) OPEB Plan Fiduciary Net Position

As previously mentioned, the Plan does not issue a separate stand-alone financial report. Below are the Plan's financial statements as of and for the year ending June 30, 2023:

	Retiree Medical Plan
Assets:	
Cash and investments:	
Pooled amounts held in trust with OCERS	<u>\$52,013,173</u>
Total cash and investments	52,013,173
Receivables:	
Other receivables	<u>19,889</u>
Total assets	<u>52,033,062</u>
Liabilities:	
Accrued liabilities	<u>1,019,027</u>
Total liabilities	<u>1,019,027</u>
Net position restricted for postemployment benefits other than pensions	<u>\$51,014,035</u>

	Retiree Medical Plan
Additions:	
Contributions:	
Employer	\$ 3,238,768
Plan members	<u>1,628,619</u>
Total contributions	<u>4,867,387</u>
Net investment income:	
Total investment income (loss)	(4,304,726)
Investment fees and expenses	<u>(378,398)</u>
Total net investment income (loss)	<u>(4,683,124)</u>
Total additions	<u>184,263</u>
Deductions:	
Benefits and refunds paid to plan members and beneficiaries	8,592,854
Administrative expenses	<u>23,640</u>
Total deductions	<u>8,616,494</u>
Change in net position	(8,432,231)
Net position, beginning of year	<u>59,446,266</u>
Net position, end of year	<u>\$51,014,035</u>

(27) Retiree Defined Contribution Healthcare Expense Reimbursement Plan

(a) Plan Description and Administration

On September 28, 2006, OCFA's Board of Directors created the Orange County Fire Authority Retiree Defined Contribution Healthcare Expense Reimbursement Plan (Plan), an employer-sponsored defined contribution benefit plan. The Plan became effective January 1, 2007. OCFA's Board of Directors establishes and amends all Plan provisions through negotiations with labor bargaining groups, subject to all applicable requirements of the Myers-Milias-Brown Act and any other applicable law.

Plan assets are held in an irrevocable trust for the exclusive benefit of Plan participants and are administered by MidAmerica Administrative and Retirement Solutions (formerly Further). Funds are held in a Healthcare Reimbursement Account as a "self-insured medical reimbursement plan" pursuant to Sections 105 and 106 of the Internal Revenue Code. All contributions, investment income, and realized and unrealized gains and losses are credited to individual recordkeeping accounts maintained in the name of each Plan participant. Account assets are invested as directed by the participant from among investment funds selected by the OCFA. The Healthcare Reimbursement Account is considered an employer-funded account for tax purposes. An individual employee may not decide to participate or not participate beyond the terms of the applicable agreement.

(b) Benefit Provisions and Eligibility

All full-time employees who were hired on or after January 1, 2007, are eligible to participate in the Plan. The Plan provides for the reimbursement of medical, dental, and other eligible healthcare expenses of retirees, their spouses, and dependents. Participants are eligible to receive Plan benefits upon reaching retirement age, including those who terminate employment with the OCFA for reasons other than retirement.

(c) Contributions

All active, full-time employees who became employed by OCFA on or after January 1, 2007, are required to contribute 4% of their base pay to the Plan through payroll deductions to the OCFA. Employees are not permitted to contribute more or less to the Plan.

At the time the Plan was implemented, all OCFA classifications received a salary range adjustment that was earmarked for the required contribution into the Healthcare Reimbursement Account. Employees were not given the option to

receive the salary increase as cash payment. Required employee withholdings contributed to the Plan are considered employer contributions for tax purposes, because OCFA as the employer maintains the tax-exempt status for the Plan. However, these contributions are considered employee contributions for financial reporting purposes. Contractually required employee contributions for the fiscal year ended June 30, 2023, totaled \$4,693,181.

(d) Public Employees' Medical and Hospital Care Act

All retirees and full-time employees hired on or after January 1, 2007, are eligible for the legally required Public Employees' Medical and Hospital Care Act (PEMHCA) minimum, as stipulated by the California Public Employees' Retirement System (CalPERS). Additional information regarding other postemployment benefits (OPEB) for PEMHCA is provided within these notes as Note 26.

(28) Deferred Compensation Plans

(a) 457(b) and 401(a) Deferred Compensation Plans

All OCFA employees may participate in OCFA's 457(b) Deferred Compensation Plan, a retirement savings plan. The 457(b) Deferred Compensation Plan (457b Plan) is administered by the Nationwide Trust Company. Employees may make voluntary contributions to the 457b Plan, including after-tax Roth 457 contributions, up to the maximum annual amounts permitted by the Internal Revenue Service. Voluntary employee contributions to the 457b Plan for the fiscal year ended June 30, 2023, totaled \$12,285,807.

On February 28, 2019, OCFA's Board of Directors created the Orange County Fire Authority 401(a) Deferred Compensation Plan (401a Plan). The 401a Plan is also administered by Nationwide Trust Company. In accordance with OCFA's Personnel and Salary Resolution, Executive Management employees are eligible to receive deferred compensation contributions from OCFA in an amount equal to 4.5% of base salary. In accordance with OCFA's Memorandum of Understanding with the Administrative Management unit, employees at the maximum of their salary range are eligible to receive a merit-based deferred compensation contribution in the amount of \$500 per year. Contractually required employer contributions to the 401a Plan for the fiscal year ended June 30, 2023, totaled \$138,438 for Executive Management employees and \$6,500 for Administrative Management employees.

OCFA's Board of Directors establishes and amends all deferred compensation plan provisions, including benefit terms and contribution requirements, through negotiations with labor bargaining groups when applicable. Amendment or termination of the plans is subject to the meet and confer requirement of the Myers-Milias-Brown Act and any other applicable law.

(b) 457(OBRA) Deferred Compensation Plan

On January 26, 2017, OCFA's Board of Directors created a 457(OBRA) Deferred Compensation Plan (Plan), a mandatory retirement savings plan, for the participation of all eligible part-time employees pursuant to federal legislation. For Internal Revenue Service (IRS) tax purposes, all OCFA Board Members are considered employees and, as such, OCFA is required to provide a retirement savings plan for mandatory enrollment. The Plan satisfies OCFA's obligation to enroll all employees in a retirement savings plan. Effective July 1, 2018, all eligible extra help employees hired by OCFA are also enrolled as participants in the Plan in lieu of OCFA's Extra Help Retirement Plan, a single-employer defined benefit pension plan described within these notes as Note 25.

Plan participants are required to contribute 7.5% of their earnings to the Plan, subject to maximum annual federal limits, and may immediately receive benefits without penalty upon separation of employment from OCFA. The Plan is administered by NaCoServices, Inc., a subsidiary of the National Association of Counties and Nationwide Retirement Solutions, Inc. Required employee contributions for the fiscal year ended June 30, 2023, totaled \$12,904.

(29) Subsequent Events

(a) Deposit to 115 Trust

On July 7, 2023, OCFA deposited \$2,000,000 into the Public Agencies Post-Employment Benefits Trust (115 Trust) for the purpose of pre-funding pension and/or other post-employment benefit obligations in accordance with terms of the Settlement Agreement between OCFA and the City of Irvine. Assets of the 115 Trust are held by U.S. Bank National Association (U.S. Bank) and are administered by Public Agency Retirement Services (PARS).

(b) General Liability Insurance Premium Increase

On August 11, 2023, OCFA paid \$3,149,050 to the Fire Agencies Insurance Risk Authority (FAIRA) to renew its Fiscal Year 2023/24 general liability insurance premium. This was a 17% increase over the expiring Fiscal Year 2022/23 premium that totaled \$2,689,184. The premium increase is primarily due to the FAIRA pool experiencing above-average losses in employment liability claims; the general hardening of the current insurance market; the COVID-19 pandemic; and the increase in the number of OCFA vehicles, fire stations, paramedic count, and employees.

(c) Workers' Compensation Excess Insurance Premium Increase

On August 4, 2023, OCFA paid \$945,916 to PRISM to renew its Fiscal Year 2023/24 workers' compensation excess insurance premium, including related fees. This was an 11% increase over the expiring Fiscal Year 2022/23 premium as shown in the following table:

	Fiscal Year <u>2023/24 Payment</u>	Fiscal Year <u>2022/23 Payment</u>	<u>% Increase</u>
Premium	\$797,215	\$755,650	6%
Administrative fee	63,752	56,967	12%
Broker fee	41,834	39,024	7%
Adjustment	<u>43,115</u>	-	100%
Total payment	<u>\$945,916</u>	<u>\$851,641</u>	11%

The premium increase is primarily due to several factors, including (1) serious claims from the burn over incident and other significant claims; (2) the COVID-19 pandemic and general market impact; (3) fewer carriers willing to offer workers' compensation excess insurance to the public safety sector; and (4) the provider creating two new public safety rating groups with increased rates that were phased in over a three-year period. OCFA is included in the high safety rating group since over 40% of its payroll is attributable to safety personnel.

(d) Lease Agreement for Copier Services

On May 25, 2023, OCFA entered into a Professional Services Agreement (Agreement) with UBEO West, LLC, for copier and multifunction device leasing services at the RFOTC and fire stations. The term of the Agreement commenced August 1, 2023, for an initial, one-year term. Thereafter, at the sole discretion of OCFA, the Agreement may be extended for up to four additional, one-year renewal terms. The amount of the Agreement is not to exceed \$120,000 annually. In August 2023, OCFA began the process of physically removing and replacing its existing copier equipment, which was leased from Cell Business Equipment on a month-to-month basis (Note 21).

(e) Legal Settlement

In July 2023, OCFA entered into a Settlement Agreement and Release of All Claims (Agreement) with a Plaintiff arising from a legal matter that was initiated in 2021. Per terms of the Agreement, OCFA agreed to pay the Plaintiff the total sum of \$580,000, which consisted of \$58,000 to be paid directly by OCFA as taxable wages and \$522,000 to be paid directly by OCFA's insurance carrier to the Plaintiff's attorney client trust account. As of June 30, 2023, OCFA reported a \$58,000 claims liability within these financial statements, offset by a receivable for an equal amount due as a reimbursement from OCFA's insurance carrier. OCFA's payment to the Plaintiff was processed on July 21, 2023.

Orange County Fire Authority



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Required Supplementary Information



Best & Bravest Awards Dinner
April 28, 2023

Required Supplementary Information

OCERS Retirement Plan

OCFA participates in the Orange County Employees Retirement System (OCERS), a cost-sharing multiple-employer, defined benefit pension plan that provides retirement, disability, and death benefits to safety and general members.

Extra Help Retirement Plan

OCFA administers a single-employer, defined benefit pension plan that provides retirement benefits for OCFA's less than half-time and extra help employees hired prior to July 1, 2018. Plan assets are accounted for in the Extra Help Retirement fiduciary fund.

Retiree Medical Plan

OCFA provides a single-employer, defined benefit plan for OCFA's full-time and part-time employees hired prior to January 1, 2007, which provides a monthly grant toward the cost of retirees' health insurance coverage. Plan assets are held in an irrevocable trust for the exclusive benefit of Plan participants and are administered by the Orange County Employees Retirement System (OCERS).

ORANGE COUNTY FIRE AUTHORITY

OCERS Retirement Plan
A Cost-Sharing, Multiple-Employer Defined Benefit Pension Plan
As of June 30, 2023
Last Ten Fiscal Years

Schedule of OCFA's Proportionate Share of the Net Pension Liability

Fiscal Year Ended June 30	OCFA's Proportion of the Collective Net Pension Liability (Asset)	OCFA's Proportionate Share of the Collective Net Pension Liability (Asset)	OCFA's Covered Payroll (B)	Proportionate Share of the Collective Net Pension Liability (Asset) as a Percentage of Covered Payroll	Plan's Fiduciary Net Position	Plan's Fiduciary Net Position as a Percentage of the Total Pension Liability (Asset)	Applicable Measurement Date (A)
2014	8.366%	\$ 442,651,348	\$ 129,689,221	341.317%	\$ 10,821,318,000	67.16%	12/31/2013
2015	9.188%	\$ 466,968,323	\$ 129,187,729	361.465%	\$ 11,536,106,000	69.42%	12/31/2014
2016	9.056%	\$ 517,669,806	\$ 129,452,647	399.891%	\$ 11,657,318,000	67.10%	12/31/2015
2017	9.043%	\$ 469,430,660	\$ 124,514,004	377.010%	\$ 12,809,208,000	71.16%	12/31/2016
2018	7.485%	\$ 370,674,668	\$ 148,890,685	248.958%	\$ 14,801,895,000	74.93%	12/31/2017
2019	7.531%	\$ 466,731,526	\$ 155,479,486	300.188%	\$ 14,481,680,000	70.03%	12/31/2018
2020	6.982%	\$ 354,395,457	\$ 164,583,742	215.328%	\$ 16,678,581,000	76.67%	12/31/2019
2021	4.299%	\$ 181,121,638	\$ 190,254,989	95.199%	\$ 18,797,203,000	81.69%	12/31/2020
2022	-5.117%	\$ (104,907,413)	\$ 189,061,641	-55.488%	\$ 21,922,182,000	91.45%	12/31/2021
2023	5.176%	\$ 279,060,590	\$ 193,780,939	144.008%	\$ 19,690,021,000	78.51%	12/31/2022

Notes to Schedule:

(A) Applicable measurement date reflects the most recent fiscal year-end of the Orange County Employees Retirement System.

(B) Based on Plan Year ending December 31

ORANGE COUNTY FIRE AUTHORITY

**OCERS Retirement Plan
A Cost-Sharing, Multiple-Employer Defined Benefit Pension Plan
As of June 30, 2023
Last Ten Fiscal Years**

Schedule of Contributions

Fiscal Year Ended June 30	Required Employer Contributions		Actual Employer Contributions	Contribution Excess (Deficiency)	Covered Payroll (B)	Actual Contributions as a Percentage of Covered Payroll
	(Actuarially Determined)					
2014	\$ 57,795,043	\$ 63,030,796	\$ 5,235,753	\$ 125,869,628	50.08%	
2015	\$ 61,323,319	\$ 82,699,618	\$ 21,376,299	\$ 128,215,528	64.50%	
2016	\$ 63,297,103	\$ 78,708,605	\$ 15,411,502	\$ 132,248,620	59.52%	
2017	\$ 66,284,815	\$ 82,880,775	\$ 16,595,960	\$ 144,564,215	57.33%	
2018	\$ 67,135,009	\$ 90,230,805	\$ 23,095,796	\$ 149,170,809	60.49%	
2019	\$ 68,220,529	\$ 91,053,475	\$ 22,832,946	\$ 153,247,752	59.42%	
2020	\$ 72,228,778	\$ 93,232,215	\$ 21,003,437	\$ 176,975,377	52.68%	
2021	\$ 79,754,287	\$ 106,715,236	\$ 26,960,949	\$ 185,441,142	57.55%	
2022	\$ 83,069,059	\$ 94,010,371	\$ 10,941,312	\$ 192,639,197	48.80%	
2023	\$ 71,691,220	\$ 84,450,056	\$ 12,758,836	\$ 197,123,640	42.84%	

Notes to Schedule:

(A) Beginning in Fiscal Year 2014/15, required and actual contributions presented in the above schedule exclude any employer-paid member contributions. Since it was not practical to obtain data in this format prior to Fiscal Year 2014/15, earlier periods have not been restated. Required and actual contributions presented for Fiscal Year 2013/14 and prior include any employer-paid member contributions.

(B) Based on Fiscal Year ending June 30

ORANGE COUNTY FIRE AUTHORITY

Extra Help Retirement Plan
A Single-Employer Defined Benefit Pension Plan
As of June 30, 2023
For the Last Ten Fiscal Years

Schedule of Changes in Net Pension Liability and Related Ratios

	Fiscal Year Ended June 30			
	2014	2015	2016	2017
Total pension liability (TPL):				
Service cost	\$ 8,030	\$ -	\$ 8,331	\$ 6,050
Interest	11,484	-	11,865	6,637
Changes in benefit terms	-	-	-	-
Differences between expected and actual experience	(3,269)	9,728	(131,777)	-
Changes of assumptions	-	-	47,323	(27,593)
Benefit payments, including refunds of member contributions	(8,676)	(6,459)	(10,642)	(31,370)
Net change in total pension liability	7,569	3,269	(74,900)	(46,276)
Total pension liability - beginning	302,551	310,120	313,389	238,489
Total pension liability - ending	310,120	313,389	238,489	192,213
Plan fiduciary net position (FNP):				
Contributions - employer	2,117	2,481	2,267	839
Contributions - plan members	13,542	11,831	8,923	21,080
Net investment income	586	714	1,219	2,407
Benefit payments, including refunds of member contributions	(8,676)	(6,459)	(10,642)	(31,370)
Net change in plan fiduciary net position	7,569	8,567	1,767	(7,044)
Total plan fiduciary net position - beginning	56,895	64,464	73,031	74,798
Total plan fiduciary net position - ending	64,464	73,031	74,798	67,754
Net pension liability (NPL)	\$ 245,656	\$ 240,358	\$ 163,691	\$ 124,459
Plan FNP as a % of the TPL	20.79%	23.30%	31.36%	35.25%
Covered payroll	\$ 205,340	\$ 205,340	\$ 108,526	\$ 108,526
NPL as a % of covered payroll (B)	119.63%	117.05%	150.83%	114.68%

Notes to Schedule:

(A) Change in actuarial assumptions:

Discount rate and investment rate of return	3.75%	3.75%	2.90%	3.40%
Inflation	3.00%	3.00%	2.75%	2.75%
Salary increases	3.00%	3.00%	3.00%	3.00%

(B) Effective July 1, 2018, the Plan is closed to new entrants. As of June 30, 2022, there are no longer an active employees participating in the plan; thus, covered payroll and net pension liability as a % of covered payroll are not applicable.

	2018	2019	2020	2021	2022	2023
\$	5,386	\$ 2,911	\$ 6,786	\$ 994	\$ 874	\$ -
	6,297	5,007	5,388	3,033	2,819	3,115
	-	-	-	-	-	-
	(36,700)	21,397	(63,020)	829	(6,523)	(50,185)
	5,961	9,879	16,260	6,853	(29,721)	(125)
	<u>(24,786)</u>	<u>(16,426)</u>	<u>(13,768)</u>	<u>-</u>	<u>(2,213)</u>	<u>(33,302)</u>
	(43,842)	22,768	(48,354)	11,709	(34,764)	(80,497)
	<u>192,213</u>	<u>148,371</u>	<u>171,139</u>	<u>122,785</u>	<u>134,494</u>	<u>99,730</u>
	<u>148,371</u>	<u>171,139</u>	<u>122,785</u>	<u>134,494</u>	<u>99,730</u>	<u>19,233</u>
	1,519	876	1,072	2,117	2,279	540
	16,641	9,043	891	579	-	-
	1,196	1,731	1,191	266	192	1,166
	<u>(24,786)</u>	<u>(16,426)</u>	<u>(13,768)</u>	<u>-</u>	<u>(2,213)</u>	<u>(33,302)</u>
	(5,430)	(4,776)	(10,614)	2,962	258	(31,596)
	<u>67,754</u>	<u>62,324</u>	<u>57,548</u>	<u>46,934</u>	<u>49,896</u>	<u>50,154</u>
	<u>62,324</u>	<u>57,548</u>	<u>46,934</u>	<u>49,896</u>	<u>50,154</u>	<u>18,558</u>
\$	<u>86,047</u>	<u>113,591</u>	<u>75,851</u>	<u>84,598</u>	<u>49,576</u>	<u>675</u>
	42.01%	33.63%	38.22%	37.10%	50.29%	96.49%
\$	73,747	\$ 160,212	\$ 9,541	\$ 7,744	N/A	N/A
	116.68%	70.90%	795.00%	1092.43%	N/A	N/A
	3.50%	3.15%	2.45%	2.10%	3.75%	3.90%
	2.75%	2.75%	2.75%	2.75%	2.75%	2.75%
	3.00%	3.00%	3.00%	3.00%	3.00%	N/A

ORANGE COUNTY FIRE AUTHORITY

Extra Help Retirement Plan
A Single-Employer Defined Benefit Pension Plan
As of June 30, 2023
For the Last Ten Fiscal Years

Schedule of Contributions

	Fiscal Year Ended June 30			
	2014	2015	2016	2017
Required employer contributions (contractually determined)	\$ 2,117	\$ 2,481	\$ 2,267	\$ 839
Actual employer contributions	2,117	2,481	2,267	839
Contribution excess (deficiency)	\$ -	\$ -	\$ -	\$ -
Actual contributions as a % of required contributions	100.00%	100.00%	100.00%	100.00%
Covered payroll (B)	\$ 205,340	\$ 205,340	\$ 108,526	\$ 108,526
Actual contributions as a % of covered payroll (B)	1.03%	1.21%	2.09%	0.77%

Notes to Schedule:

(A) Changes in size or composition of plan members:

Inactive; currently receiving benefits	-	-	-	-
Inactive; entitled to but not yet receiving benefits	10	39	47	46
Active	59	41	17	31
Total plan members as of June 30	69	80	64	77

(B) Effective July 1, 2018, the Plan is closed to new entrants. As of June 30, 2022, there are no longer an active employees participating in the plan; thus, covered payroll and net pension liability as a % of covered payroll are not applicable.

2018	2019	2020	2021	2022	2023
\$ 1,519	\$ 876	1,072	2,117	2,279	540
<u>1,519</u>	<u>876</u>	<u>1,072</u>	<u>2,117</u>	<u>2,279</u>	<u>540</u>
<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
\$ 73,747	\$ 160,212	\$ 9,541	\$ 7,744	N/A	N/A
2.06%	0.55%	11.24%	27.34%	N/A	N/A
-	-	-	-	-	-
37	38	38	38	38	32
<u>24</u>	<u>4</u>	<u>1</u>	<u>1</u>	<u>-</u>	<u>-</u>
<u>61</u>	<u>42</u>	<u>39</u>	<u>39</u>	<u>38</u>	<u>32</u>

ORANGE COUNTY FIRE AUTHORITY

Extra Help Retirement Plan
A Single-Employer Defined Benefit Pension Plan
As of June 30, 2023
For the Last Ten Fiscal Years

Schedule of Money Weighted Rate of Return

Fiscal Year Ended June 30	Annual Money-Weighted Rate of Return, Net of Investment Expense
2014	0.97%
2015	1.24%
2016	1.66%
2017	3.43%
2018	1.90%
2019	2.93%
2020	2.30%
2021	0.55%
2022	0.39%
2023	3.45%

Orange County Fire Authority



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ORANGE COUNTY FIRE AUTHORITY

Retiree Medical Plan
A Single-Employer Defined Benefit Other Postemployment Benefit (OPEB) Plan
As of June 30, 2023
For the Last Ten Fiscal Years (A)

Schedule of Changes in Net OPEB Liability and Related Ratios

	Fiscal Year Ended June 30		
	2018	2019	2020
Total OPEB liability (TOPEBL):			
Service cost	\$ 7,712,349	\$ 7,989,994	\$ 6,034,031
Interest	10,007,111	10,432,082	10,878,843
Differences between expected and actual experience	-	(2,909,247)	(647,369)
Changes of assumptions	-	(35,431,920)	18,873,824
Benefit payments, including refunds of member contributions	(5,581,055)	(6,803,645)	(7,239,321)
Net change in total pension liability	12,138,405	(26,722,736)	27,900,008
Total OPEB liability - beginning	273,053,476	285,191,881	258,469,145
Total OPEB liability - ending	285,191,881	258,469,145	286,369,153
Plan fiduciary net position (FNP):			
Contributions - employer	1,603,537	4,002,323	2,221,564
Contributions - plan members	2,379,665	2,259,947	2,111,158
Net investment income (loss)	5,116,794	(728,045)	5,301,391
Benefit payments, including refunds of member contributions	(5,581,055)	(6,803,645)	(7,239,321)
Administrative expense	(27,068)	(30,304)	(21,240)
Net change in plan fiduciary net position	3,491,873	(1,299,724)	2,373,552
Total plan fiduciary net position - beginning	36,839,189	40,331,062	39,031,338
Total plan fiduciary net position - ending	40,331,062	39,031,338	41,404,890
Net OPEB liability (NOPEBL)	\$ 244,860,819	\$ 219,437,807	\$ 244,964,263
Plan FNP as a % of the TOPEBL	14.14%	15.10%	14.46%
Covered employee payroll (B)	\$ 68,808,979	\$ 66,697,012	\$ 63,351,188
NOPEBL as a % of covered employee payroll	355.86%	329.01%	386.68%

Notes to Schedule:

(A) GASB Statements No. 74, No. 75, and No. 85 were implemented during Fiscal Year 2017/18. Additional years will be added as they become available in the future.

(B) Required employer contributions to the OPEB plan are not based on a measure of pay; thus, this schedule discloses "covered employee payroll" (the payroll of employees that are provided with OPEB through the OPEB plan) as the measure of payroll. The amounts reported on this schedule are based on the Plan Year ending date of December 31.

(C) Applicable measurement date	12/31/2017	12/31/2018	12/31/2019
(D) Change in actuarial assumptions:			
Discount rate	3.60%	4.17%	3.31%
Investment rate of return	7.00%	7.00%	7.00%
Payroll growth	3.25%	3.25%	3.25%
Inflation	2.75%	2.75%	2.75%
Healthcare cost trend rates	5.00% - 6.50%	5.00% - 6.50%	4.50% - 6.50%
Twenty-year bond rate	3.44%	4.11%	2.76% - 3.26%
Crossover year	2028	2025	2025
Mortality rate scale	MP-2015	MP-2018	MP-2019
Pre-retirement turnover	0.00% - 5.00%	0.20% - 11.00%	0.20% - 11.00%

2021	2022	2023
\$ 8,510,680	\$ 10,072,942	\$ 2,461,230
9,632,097	7,499,506	11,178,022
1,145,322	(23,396,844)	(5,289,751)
37,176,101	(159,298,759)	1,408,587
<u>(7,823,558)</u>	<u>(8,438,075)</u>	<u>(8,592,854)</u>
48,640,642	(173,561,230)	1,165,234
<u>286,369,153</u>	<u>335,009,795</u>	<u>161,448,565</u>
<u>335,009,795</u>	<u>161,448,565</u>	<u>162,613,799</u>
2,284,326	17,370,021	3,238,768
1,976,295	1,842,066	1,628,619
4,134,537	6,741,844	(4,683,124)
(7,823,558)	(8,438,075)	(8,592,854)
<u>(22,440)</u>	<u>(23,640)</u>	<u>(23,640)</u>
549,160	17,492,216	(8,432,231)
<u>41,404,890</u>	<u>41,954,050</u>	<u>59,446,266</u>
<u>41,954,050</u>	<u>59,446,266</u>	<u>51,014,035</u>
<u>\$ 293,055,745</u>	<u>\$ 102,002,299</u>	<u>\$ 111,599,764</u>
12.52%	36.82%	31.37%
\$ 58,610,629	\$ 56,548,860	\$ 48,509,326
500.00%	180.38%	230.06%

12/31/2020	12/31/2021	12/31/2022
2.20%	7.00%	7.00%
7.00%	7.00%	7.00%
3.25%	3.25%	3.00%
2.75%	2.75%	2.00%
4.50% - 6.50%	4.50% - 6.25%	4.50% - 7.00%
1.93% - 2.12%	1.84% - 2.25%	1.94% - 4.09%
2027	N/A	N/A
MP-2020	MP-2021	MP-2021
0.20% - 11.00%	0.15% - 11.00%	0.15% - 11.00%

ORANGE COUNTY FIRE AUTHORITY

Retiree Medical Plan
A Single-Employer Defined Benefit Other Postemployment Benefit (OPEB) Plan
As of June 30, 2023
For the Last Ten Fiscal Years (A)

Schedule of Contributions

	Fiscal Year Ended June 30		
	2018	2019	2020
Required employer contributions (contractually determined) (B)	\$ 3,941,686	\$ 1,974,029	\$ 2,252,945
Actual employer contributions	3,941,686	1,974,029	2,252,945
Contribution excess (deficiency)	\$ -	\$ -	\$ -
Actual contributions as a % of contractually required contributions	100.00%	100.00%	100.00%
Covered employee payroll (C)	\$ 65,955,614	\$ 62,958,049	\$ 59,454,055
Actual contributions as a % of covered employee payroll	5.98%	3.14%	3.79%

Notes to Schedule:

(A) GASB Statements No. 74, No. 75, and No. 85 were implemented during Fiscal Year 2017/18. Additional years will be added as they become available in the future.

(B) Required, contractually determined employer contributions include: (1) cash contributions per Section 5 of the Health Plan Agreement between OCFA and the Orange County Professional Firefighters Association; (2) "Snowball Plan" payments required per the 4th Amendment to the Joint Powers Authority Agreement; (3) any cash contributions paid directly to retirees outside of the trust per the Retiree Medical Plan; and (4) the implicit subsidy in accordance with Memorandums of Understanding between OCFA and its labor groups requiring that OCFA contribute toward the payment of health care premiums on behalf of eligible retirees.

(C) Required employer contributions to the OPEB plan are not based on a measure of pay; thus, this schedule discloses "covered employee payroll" (the payroll of employees that are provided with OPEB through the OPEB plan) as the measure of payroll. The amounts reported on this schedule are based on the Fiscal Year ending date of June 30.

(D) Changes in size or composition of plan members:

	As of June 30		
	2018	2019	2020
Retiree Medical Plan (Hired Prior to January 1, 2007):			
Inactive; currently receiving benefits	738	781	817
Inactive; entitled to but no yet receiving benefits	41	39	36
Active	511	457	419
Subtotal	1,290	1,277	1,272
PEMHCA Eligible Employees (Hired on or After January 1, 2007):			
Inactive; currently receiving benefits	1	1	4
Active	763	821	1,008
Subtotal	764	822	1,012
Total Plan Members as of June 30:			
Inactive; currently receiving benefits	739	782	821
Inactive; entitled to but no yet receiving benefits	41	39	36
Active	1,274	1,278	1,427
Total	2,054	2,099	2,284

2021	2022	2023
\$ 2,361,738	\$ 18,417,245	\$ 26,538,739
2,361,738	18,417,245	26,538,739
\$ -	\$ -	\$ -
100.00%	100.00%	100.00%
\$ 57,043,737	\$ 49,786,365	\$ 44,545,501
4.14%	36.99%	59.58%

2021	2022	2023
844	900	929
36	32	29
384	324	285
1,264	1,256	1,243
4	4	7
1,102	1,152	1,227
1,106	1,156	1,234
848	904	936
36	32	29
1,486	1,476	1,512
2,370	2,412	2,477

ORANGE COUNTY FIRE AUTHORITY

Retiree Medical Plan
A Single-Employer Defined Benefit Other Postemployment Benefit (OPEB) Plan
As of June 30, 2023
For the Last Ten Fiscal Years (A)

Schedule of Money Weighted Rate of Return

Fiscal Year Ended June 30	As Related to Plan Year Ended December 31	Annual Money-Weighted Rate of Return, Net of Investment Expense
2018	2017	14.74%
2019	2018	-1.31%
2020	2019	14.81%
2021	2020	11.22%
2022	2021	16.67%
2023	2022	-7.88%

Notes to Schedule:

(A) GASB Statement No. 74 was implemented during Fiscal Year 2017/18. Additional years will be added as they become available in the future.

Supplementary Schedules



Honoring Our Retirees
2022-2023

Major Governmental Funds

Capital Projects Funds

Communications and Information Systems

This fund is used to account for the significant acquisition, improvement, or replacement of specialized communications and information technology systems and/or equipment.

Fire Apparatus

This fund is used to account for the significant acquisition, improvement, or replacement of fire apparatus, including vehicles, trailers, and helicopters.

Fire Stations and Facilities

This fund is used to account for the significant acquisition, improvement, replacement, or construction of fire stations and facilities.

ORANGE COUNTY FIRE AUTHORITY
Communications and Information Systems
Budgetary Comparison Schedule
Year ended June 30, 2023
(With Comparative Data for Prior Year)

	2023			Variance with Final Budget Positive (Negative)	2022
	Budget Amounts		Actual Amounts		Actual Amounts
	Original	Final			
Budgetary fund balance, July 1	\$ 5,633,339	\$ 5,633,339	\$ 5,633,339	\$ -	\$ 5,223,735
Resources (inflows):					
Use of money and property	29,580	117,227	174,245	57,018	(118,653)
Miscellaneous	-	-	156,502	156,502	-
Transfers in	4,500,000	4,500,000	4,500,000	-	1,700,000
Total resources (inflows)	4,529,580	4,617,227	4,830,747	213,520	1,581,347
Amounts available for appropriations	10,162,919	10,250,566	10,464,086	213,520	6,805,082
Charges to appropriation (outflows):					
Services and supplies	3,669,836	2,312,371	406,976	1,905,395	313,211
Capital outlay	2,996,496	3,411,808	922,123	2,489,685	858,532
Transfers out	-	3,097,603	3,097,603	-	-
Total charges to appropriations	6,666,332	8,821,782	4,426,702	4,395,080	1,171,743
Budgetary fund balance, June 30	\$ 3,496,587	\$ 1,428,784	\$ 6,037,384	\$ 4,608,600	\$ 5,633,339

ORANGE COUNTY FIRE AUTHORITY
Fire Apparatus
Budgetary Comparison Schedule
Year ended June 30, 2023
(With Comparative Data for Prior Year)

	2023			2022	
	Budget Amounts		Actual Amounts	Variance with Final Budget	Actual Amounts
	Original	Final		Positive (Negative)	
Budgetary fund balance, July 1	\$ 16,569,960	\$ 16,569,960	\$ 16,569,960	\$ -	\$ 26,031,912
Resources (inflows):					
Charges for services	1,749,288	1,749,288	1,749,288	-	1,652,957
Use of money and property	220,110	517,088	868,386	351,298	(469,024)
Developer contributions	-	820,000	831,983	11,983	-
Transfers in	9,442,226	9,442,226	9,442,226	-	3,364,518
Issuance of lease	-	57,871,440	57,882,120	10,680	-
Total resources (inflows)	11,411,624	70,400,042	70,774,003	373,961	4,548,451
Amounts available for appropriations	27,981,584	86,970,002	87,343,963	373,961	30,580,363
Charges to appropriation (outflows):					
Services and supplies	-	1,112,460	98,429	1,014,031	400
Capital outlay	26,032,207	82,301,127	49,472,289	32,828,838	10,646,989
Issuance costs	-	47,000	43,092	3,908	-
Transfers out	-	-	-	-	3,363,014
Total charges to appropriations	26,032,207	83,460,587	49,613,810	33,846,777	14,010,403
Budgetary fund balance, June 30	\$ 1,949,377	\$ 3,509,415	\$ 37,730,153	\$ 34,220,738	\$ 16,569,960

ORANGE COUNTY FIRE AUTHORITY
Fire Stations and Facilities
Budgetary Comparison Schedule
Year ended June 30, 2023
(With Comparative Data for Prior Year)

	2023			Variance with Final Budget Positive (Negative)	2022
	Budget Amounts		Actual Amounts		Actual Amounts
	Original	Final			
Budgetary fund balance, July 1	\$ 21,308,456	\$ 21,308,456	\$ 21,308,456	\$ -	\$ 18,488,482
Resources (inflows):					
Intergovernmental	-	17,170,143	17,170,143	-	176,357
Use of money and property	40,570	334,005	578,747	244,742	(421,755)
Developer contributions	851,611	185,211	219,600	34,389	401,221
Transfers in	-	-	-	-	4,450,000
Total resources (inflows)	<u>892,181</u>	<u>17,689,359</u>	<u>17,968,490</u>	<u>279,131</u>	<u>4,605,823</u>
Amounts available for appropriations	<u>22,200,637</u>	<u>38,997,815</u>	<u>39,276,946</u>	<u>279,131</u>	<u>23,094,305</u>
Charges to appropriation (outflows):					
Services and supplies	119,165	419,165	620,023	(200,858)	689,019
Capital outlay	1,419,657	37,657,366	1,530,303	36,127,063	96,830
Transfers out	-	-	-	-	1,000,000
Total charges to appropriations	<u>1,538,822</u>	<u>38,076,531</u>	<u>2,150,326</u>	<u>35,926,205</u>	<u>1,785,849</u>
Budgetary fund balance, June 30	<u>\$ 20,661,815</u>	<u>\$ 921,284</u>	<u>\$ 37,126,620</u>	<u>\$ 36,205,336</u>	<u>\$ 21,308,456</u>

Major Governmental Funds

“Sub-Fund” Components of General Fund

The following “sub-funds” are combined and consolidated in order to report a single General Fund for financial statement presentation. Descriptions of each “sub-fund” component are identified below.

General Operating Fund

This sub-fund is used to account for all operating activities not accounted for in another sub-fund.

General Fund Capital Improvement Program (CIP)

This sub-fund is used to account for financial activity associated with maintenance and improvement projects that are considered “capital in nature” but do not meet the criteria to be included in a Capital Projects Fund.

Structural Fire Entitlement

This sub-fund is used to account for service enhancement funds of over-funded Structural Fire Fund members.

Self Insurance

This sub-fund is used to account the workers’ compensation self-insurance program.

Settlement Agreement

This sub-fund is used to account for the activities of a Settlement Agreement between OCFA and the City of Irvine to provide various provisions benefiting the citizens of Orange County and enhancing services provided throughout OCFA’s jurisdiction, including a Joint Police-Fire Training Facility, a Drone Program, Bi-Directional Amplifiers, training of Irvine Police Department Emergency Medical Technicians, a Public Safety Community Emergency Response Team Coordinator in the City of Irvine, and pension funding through a Section 115 Trust.

ORANGE COUNTY FIRE AUTHORITY
Components of General Fund
Combining Balance Sheet
June 30, 2023
(With Comparative Data for Prior Year)

	General Operating Fund	General Fund CIP	Structural Fire Entitlement	Self Insurance
Assets:				
Cash and investments	\$ 4,787,069	\$ 9,232,355	\$ 4,236,249	\$ 143,453,069
Accounts receivable, net	2,379,857	3,074	-	-
Accrued interest receivable	164,256	-	4,077	180,251
Prepaid costs and other assets	32,527,436	44,990	-	-
Due from other governments	36,987,615	-	-	-
Restricted cash and investments	-	-	-	-
Lease receivables	895,177	-	-	-
Total assets	<u>\$ 77,741,410</u>	<u>\$ 9,280,419</u>	<u>\$ 4,240,326</u>	<u>\$ 143,633,320</u>
Liabilities:				
Accounts payable	\$ 7,033,197	\$ 425,325	\$ 720,785	\$ 299,276
Accrued liabilities	15,382,108	-	-	-
Unearned revenue	9,378,655	-	-	-
Due to other governments	5,029	-	-	-
Total liabilities	<u>31,798,989</u>	<u>425,325</u>	<u>720,785</u>	<u>299,276</u>
Deferred inflows of resources:				
Unavailable revenue	681,733	-	-	-
Related to leases	839,179	-	-	-
Total deferred inflows of resources	<u>1,520,912</u>	<u>-</u>	<u>-</u>	<u>-</u>
Fund balances:				
Nonspendable prepaid costs	32,497,892	44,990	-	-
Restricted:				
Various departments	4,728,588	-	-	-
Section 115 pension trust	-	-	-	-
Committed to SFF cities enhancements	-	-	3,519,541	-
Assigned:				
Capital improvement program	-	6,545,843	-	-
Workers' compensation	-	-	-	143,334,044
Various departments	1,849,756	-	-	-
Facilities projects	232,727	-	-	-
Communications/IT projects	-	2,116,855	-	-
Construction projects	-	147,406	-	-
Unassigned	5,112,546	-	-	-
Total fund balances	<u>44,421,509</u>	<u>8,855,094</u>	<u>3,519,541</u>	<u>143,334,044</u>
Total liabilities, deferred inflows of resources, and fund balances	<u>\$ 77,741,410</u>	<u>\$ 9,280,419</u>	<u>\$ 4,240,326</u>	<u>\$ 143,633,320</u>

Settlement Agreement	Eliminations	Total General Fund	
		2023	2022
\$ 21,590,898	\$ -	\$ 183,299,640	\$ 151,143,528
-	-	2,382,931	2,554,706
24,433	-	373,017	121,648
-	-	32,572,426	35,442,094
-	-	36,987,615	31,841,977
7,316,894	-	7,316,894	5,221,012
-	-	895,177	838,177
<u>\$ 28,932,225</u>	<u>\$ -</u>	<u>\$ 263,827,700</u>	<u>\$ 227,163,142</u>
\$ 3,397	\$ -	\$ 8,481,980	\$ 10,820,191
-	-	15,382,108	14,236,694
-	-	9,378,655	17,414
-	-	5,029	10,084
<u>3,397</u>	<u>-</u>	<u>33,247,772</u>	<u>25,084,383</u>
-	-	681,733	795,356
-	-	839,179	800,802
-	-	1,520,912	1,596,158
-	-	32,542,882	35,424,785
-	-	4,728,588	4,263,369
7,316,140	-	7,316,140	5,224,229
-	-	3,519,541	4,301,785
-	-	6,545,843	3,632,507
-	-	143,334,044	125,039,963
-	-	1,849,756	1,354,029
-	-	232,727	106,235
-	-	2,116,855	1,016,677
-	-	147,406	1,362,175
21,612,688	-	26,725,234	18,756,847
<u>28,928,828</u>	<u>-</u>	<u>229,059,016</u>	<u>200,482,601</u>
<u>\$ 28,932,225</u>	<u>\$ -</u>	<u>\$ 263,827,700</u>	<u>\$ 227,163,142</u>

ORANGE COUNTY FIRE AUTHORITY
Components of General Fund
Combining Schedule of Revenues, Expenditures and Changes in Fund Balances
Year ended June 30, 2023
(With Comparative Data for Prior Year)

	General Operating Fund	General Fund CIP	Structural Fire Entitlement	Self Insurance
Revenues:				
Taxes	\$ 326,138,528	\$ -	\$ -	\$ -
Intergovernmental	59,312,256	-	-	-
Charges for services	148,770,572	-	-	30,754,757
Use of money and property	1,973,806	-	88,206	2,585,568
Miscellaneous	23,670,734	-	-	-
Total revenues	<u>559,865,896</u>	<u>-</u>	<u>88,206</u>	<u>33,340,325</u>
Expenditures:				
Current - public safety:				
Salaries and benefits	450,933,000	-	-	-
Services and supplies	77,835,517	6,108,852	870,450	15,129,099
Capital outlay	19,789,244	616,756	-	-
Debt service:				
Interest and fiscal charges	1,456,767	-	-	-
Total expenditures	<u>550,014,528</u>	<u>6,725,608</u>	<u>870,450</u>	<u>15,129,099</u>
Excess (deficiency) of revenues over (under) expenditures	<u>9,851,368</u>	<u>(6,725,608)</u>	<u>(782,244)</u>	<u>18,211,226</u>
Other financing sources (uses):				
Transfers in	3,097,603	9,500,000	-	-
Transfers out	(26,110,226)	-	-	-
Issuance of lease	18,711,118	-	-	-
Sale of capital assets	2,730	-	-	-
Insurance recoveries	151,308	-	-	82,855
Total other financing sources (uses)	<u>(4,147,467)</u>	<u>9,500,000</u>	<u>-</u>	<u>82,855</u>
Net change in fund balances	5,703,901	2,774,392	(782,244)	18,294,081
Fund balances, beginning of year	38,717,608	6,080,702	4,301,785	125,039,963
Fund balances, end of year	<u>\$ 44,421,509</u>	<u>\$ 8,855,094</u>	<u>\$ 3,519,541</u>	<u>\$ 143,334,044</u>

Settlement Agreement	Eliminations	Total General Fund	
		2023	2022
\$ -	\$ -	\$ 326,138,528	\$ 302,861,759
-	-	59,312,256	57,550,253
-	(30,754,757)	148,770,572	144,354,836
576,327	(1,456,767)	3,767,140	(3,790,520)
-	-	23,670,734	11,128,699
<u>576,327</u>	<u>(32,211,524)</u>	<u>561,659,230</u>	<u>512,105,027</u>
-	(30,754,757)	420,178,243	419,386,430
658,042	-	100,601,960	79,854,490
-	-	20,406,000	1,360,821
-	(1,456,767)	-	-
<u>658,042</u>	<u>(32,211,524)</u>	<u>541,186,203</u>	<u>500,601,741</u>
<u>(81,715)</u>	<u>-</u>	<u>20,473,027</u>	<u>11,503,286</u>
2,668,000	(12,168,000)	3,097,603	4,363,014
-	12,168,000	(13,942,226)	(9,514,518)
-	-	18,711,118	12,690
-	-	2,730	30,679
-	-	234,163	1,632,834
<u>2,668,000</u>	<u>-</u>	<u>8,103,388</u>	<u>(3,475,301)</u>
2,586,285	-	28,576,415	8,027,985
26,342,543	-	200,482,601	192,454,616
<u>\$ 28,928,828</u>	<u>\$ -</u>	<u>\$ 229,059,016</u>	<u>\$ 200,482,601</u>

ORANGE COUNTY FIRE AUTHORITY
Components of General Fund
Combining Original Budget
Year ended June 30, 2023

	General Operating Fund	General Fund CIP	Structural Fire Entitlement	Self Insurance	Settlement Agreement	Eliminations	Total General Fund 2023
Budgetary fund balance, July 1	\$ 38,717,608	\$ 6,080,702	\$ 4,301,785	\$ 125,039,963	\$ 26,342,543	\$ -	\$ 200,482,601
Resources (inflows):							
Taxes	315,735,745	-	-	-	-	-	315,735,745
Intergovernmental	29,289,912	-	-	-	-	-	29,289,912
Charges for services	146,631,335	-	-	30,754,757	-	(30,754,757)	146,631,335
Use of money and property	627,279	-	16,148	1,065,815	207,322	(35,000)	1,881,564
Miscellaneous	1,232,800	-	-	-	-	-	1,232,800
Transfers in	-	9,500,000	-	-	2,668,000	(12,168,000)	-
Sale of capital assets	75,000	-	-	-	-	-	75,000
Total resources (inflows)	<u>493,592,071</u>	<u>9,500,000</u>	<u>16,148</u>	<u>31,820,572</u>	<u>2,875,322</u>	<u>(42,957,757)</u>	<u>494,846,356</u>
Amounts available for appropriations	<u>532,309,679</u>	<u>15,580,702</u>	<u>4,317,933</u>	<u>156,860,535</u>	<u>29,217,865</u>	<u>(42,957,757)</u>	<u>695,328,957</u>
Charges to appropriation (outflows):							
Salaries and benefits	426,127,257	-	-	-	-	(30,754,757)	395,372,500
Services and supplies	40,652,925	10,705,807	-	17,212,913	668,000	-	69,239,645
Capital outlay	807,871	678,015	-	-	-	-	1,485,886
Interest and fiscal charges	35,000	-	-	-	-	(35,000)	-
Transfers out	26,110,226	-	-	-	-	(12,168,000)	13,942,226
Total charges to appropriations	<u>493,733,279</u>	<u>11,383,822</u>	<u>-</u>	<u>17,212,913</u>	<u>668,000</u>	<u>(42,957,757)</u>	<u>480,040,257</u>
Budgetary fund balance, June 30	<u>\$ 38,576,400</u>	<u>\$ 4,196,880</u>	<u>\$ 4,317,933</u>	<u>\$ 139,647,622</u>	<u>\$ 28,549,865</u>	<u>\$ -</u>	<u>\$ 215,288,700</u>

ORANGE COUNTY FIRE AUTHORITY
Components of General Fund
Combining Final Budget
Year ended June 30, 2023

	General Operating Fund	General Fund CIP	Structural Fire Entitlement	Self Insurance	Settlement Agreement	Eliminations	Total General Fund 2023
Budgetary fund balance, July 1	\$ 38,717,608	\$ 6,080,702	\$ 4,301,785	\$ 125,039,963	\$ 26,342,543	\$ -	\$ 200,482,601
Resources (inflows):							
Taxes	325,727,253	-	-	-	-	-	325,727,253
Intergovernmental	80,122,924	-	-	-	-	-	80,122,924
Charges for services	146,558,695	-	-	30,754,757	-	(30,754,757)	146,558,695
Use of money and property	1,229,483	-	54,184	2,084,397	413,455	(1,377,500)	2,404,019
Miscellaneous	33,467,277	-	-	-	-	-	33,467,277
Transfers in	3,097,603	9,500,000	-	-	2,668,000	(12,168,000)	3,097,603
Sale of capital assets	5,000	-	-	-	-	-	5,000
Insurance recoveries	92,399	-	-	82,855	-	-	175,254
Total resources (inflows)	<u>590,300,634</u>	<u>9,500,000</u>	<u>54,184</u>	<u>32,922,009</u>	<u>3,081,455</u>	<u>(44,300,257)</u>	<u>591,558,025</u>
Amounts available for appropriations	<u>629,018,242</u>	<u>15,580,702</u>	<u>4,355,969</u>	<u>157,961,972</u>	<u>29,423,998</u>	<u>(44,300,257)</u>	<u>792,040,626</u>
Charges to appropriations (outflows):							
Salaries and benefits	451,334,196	-	-	-	-	(30,754,757)	420,579,439
Services and supplies	105,047,439	13,064,842	4,301,785	17,212,913	2,198,000	-	141,824,979
Capital outlay	3,756,136	2,339,643	-	-	-	-	6,095,779
Interest and fiscal charges	1,377,500	-	-	-	-	(1,377,500)	-
Transfers out	26,110,226	-	-	-	-	(12,168,000)	13,942,226
Total charges to appropriations	<u>587,625,497</u>	<u>15,404,485</u>	<u>4,301,785</u>	<u>17,212,913</u>	<u>2,198,000</u>	<u>(44,300,257)</u>	<u>582,442,423</u>
Budgetary fund balance, June 30	<u>\$ 41,392,745</u>	<u>\$ 176,217</u>	<u>\$ 54,184</u>	<u>\$ 140,749,059</u>	<u>\$ 27,225,998</u>	<u>\$ -</u>	<u>\$ 209,598,203</u>

Orange County Fire Authority



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Fiduciary Funds

Pension and Other Employee Benefit Trust Funds

Extra Help Retirement Plan

OCFA administers a single-employer, defined benefit pension plan that provides retirement benefits for OCFA's less than half-time and extra help employees hired prior to July 1, 2018. Plan assets are accounted for in the Extra Help Retirement fiduciary fund.

Retiree Medical Plan

OCFA provides a single-employer, defined benefit plan for OCFA's full-time and part-time employees hired prior to January 1, 2007, which provides a monthly grant toward the cost of retirees' health insurance coverage. Plan assets are held in an irrevocable trust for the exclusive benefit of Plan participants and are administered by the Orange County Employees Retirement System (OCERS).

ORANGE COUNTY FIRE AUTHORITY
Fiduciary Funds
Pension and Other Employee Benefit Trust Funds
Combining Schedule of Fiduciary Net Position
June 30, 2023
(With Comparative Data for Prior Year)

	Extra Help Retirement	Retiree Medical Plan	Total Pension and Other Employee Benefit Trust Funds	
			2023	2022
Assets:				
Cash and investments:				
Local Agency Investment Fund:				
Domestic fixed income	\$ 18,558	\$ -	\$ 18,558	\$ 50,154
Pooled amounts held in trust with OCERS	-	52,013,173	52,013,173	60,362,996
Total cash and investments	18,558	52,013,173	52,031,731	60,413,150
Receivables:				
Other receivables	-	19,889	19,889	18,254
Total assets	18,558	52,033,062	52,051,620	60,431,404
Liabilities:				
Accrued liabilities	-	1,019,027	1,019,027	934,984
Total liabilities	-	1,019,027	1,019,027	934,984
Net position restricted for:				
Pensions	18,558	-	18,558	50,154
Postemployment benefits other than pensions	-	51,014,035	51,014,035	59,446,266
Total net position	\$ 18,558	\$ 51,014,035	\$ 51,032,593	\$ 59,496,420

ORANGE COUNTY FIRE AUTHORITY
Fiduciary Funds
Pension and Other Employee Benefit Trust Funds
Combining Schedule of Changes in Fiduciary Net Position
Year ended June 30, 2023
(With Comparative Data for Prior Year)

	Extra Help Retirement	Retiree Medical Plan	Total Pension and Other Employee Benefit Trust Funds	
			2023	2022
Additions:				
Contributions:				
Employer	\$ 540	\$ 3,238,768	\$ 3,239,308	\$ 17,372,300
Plan members	-	1,628,619	1,628,619	1,842,066
Total contributions	540	4,867,387	4,867,927	19,214,366
Net investment income:				
Total investment income (loss)	1,166	(4,304,726)	(4,303,560)	7,090,184
Investment fees and expenses	-	(378,398)	(378,398)	(348,148)
Total net investment income (loss)	1,166	(4,683,124)	(4,681,958)	6,742,036
Total additions	1,706	184,263	185,969	25,956,402
Deductions:				
Benefits and refunds paid to plan members and beneficiaries	33,302	8,592,854	8,626,156	8,440,288
Administrative expenses	-	23,640	23,640	23,640
Total deductions	33,302	8,616,494	8,649,796	8,463,928
Change in net position	(31,596)	(8,432,231)	(8,463,827)	17,492,474
Net position, beginning of year	50,154	59,446,266	59,496,420	42,003,946
Net position, end of year	\$ 18,558	\$ 51,014,035	\$ 51,032,593	\$ 59,496,420

Orange County Fire Authority



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Statistical Section



ORANGE COUNTY FIRE AUTHORITY

Overview of the Statistical Section

The Statistical Section provides a context for understanding information in the financial statements, note disclosures and required supplementary information and how that information relates to the OCFA's overall financial health. The detailed schedules presented in the Statistical Section are grouped into five sections pertaining to financial trends, revenue capacity, debt capacity, demographic and economic information, and operating information.

Financial Trends Information – These schedules contain trend information to assist the reader in understanding how the OCFA's financial performance and well-being have changed over time.

Revenue Capacity Information – These schedules contain information to assist the reader in assessing property taxes, the OCFA's most significant local revenue source.

Debt Capacity Information – These schedules present information to assist the reader in assessing the affordability of the OCFA's current levels of outstanding debt and its ability to issue additional debt in the future.

Demographic and Economic Information – These schedules offer demographic and economic indicators to assist the reader in understanding the environment within which the OCFA's financial activities take place.

Operating Information – These schedules contain data to assist the reader in understanding how the information in the financial report relates to the services provided by and the activities performed by the OCFA.

Orange County Fire Authority



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ORANGE COUNTY FIRE AUTHORITY

Financial Trends Information

Net Position by Component – Presents net position of the OCFA’s governmental activities by the three individual components of net position for each of the last ten fiscal years.

Changes in Net Position – Presents the changes in net position of governmental activities for each of the last ten fiscal years.

Fund Balances of Governmental Funds – Presents information on the fund balances of the General Fund and the aggregate of all other governmental funds for each of the last ten fiscal years.

Changes in Fund Balances of Governmental Funds – Presents information on the changes in fund balances for total governmental funds for each of the last ten fiscal years, including the ratio of debt service expenditures to noncapital expenditures.

ORANGE COUNTY FIRE AUTHORITY
Net Position by Component
Last Ten Fiscal Years
(accrual basis of accounting)

	Fiscal Year Ended June 30			
	2014	2015	2016	2017
Governmental activities:				
Net investment in capital assets	\$ 180,917,654	\$ 190,800,116	\$ 187,910,677	\$ 192,430,467
Restricted (3)	1,782,690	1,789,593	2,870,622	3,843,218
Unrestricted (3)	<u>61,054,271</u>	<u>(361,714,082)</u>	<u>(351,445,217)</u>	<u>(373,047,732)</u>
		(1)		
Total governmental activities net position	<u>\$ 243,754,615</u>	<u>\$ (169,124,373)</u>	<u>\$ (160,663,918)</u>	<u>\$ (176,774,047)</u>

SOURCE: OCFA Annual Comprehensive Financial Reports

NOTES:

(1) GASB Statement No. 68 was implemented during Fiscal Year 2014/15, which required a \$362 million restatement to beginning net position in order to fully reflect net OCFA's net pension liabilities. This adjustment contributed to an overall negative balance in unrestricted net position as of June 30, 2015 and in subsequent fiscal years.

(2) GASB Statements No. 74, 75, and 85 were implemented during Fiscal Year 2017/18, which required a \$153 million restatement to beginning net position in order to fully reflect net OCFA's net OPEB liabilities. This adjustment contributed to the increased negative balance in unrestricted net position as of June 30, 2018 and thereafter.

(3) Restricted and unrestricted net position have been revised for comparability with current fiscal year calculations. Amounts shown on this schedule for years prior to Fiscal Year 2021/22 may vary from the amounts originally reported in the financial statements.

(4) Restricted net position as of June 30, 2023, included \$16,931,500 in one-time state funding for a new hand crew facility and equipment, and \$12,530,156 for in unspent debt proceeds from the 2022 helicopter lease purchase agreement.

2018	2019	2020	2021	2022	2023
\$ 207,951,822	\$ 218,642,679	\$ 217,317,435	\$ 214,278,884	\$ 214,082,791	\$ 209,059,816
3,910,033	4,057,904	6,330,588	7,541,066	10,098,718	42,216,444 (4)
<u>(511,315,301)</u> (2)	<u>(520,770,897)</u>	<u>(498,312,821)</u>	<u>(429,331,899)</u>	<u>(270,987,934)</u>	<u>(188,879,355)</u>
<u>\$ (299,453,446)</u>	<u>\$ (298,070,314)</u>	<u>\$ (274,664,798)</u>	<u>\$ (207,511,949)</u>	<u>\$ (46,806,425)</u>	<u>\$ 62,396,905</u>

ORANGE COUNTY FIRE AUTHORITY
Changes in Net Position
Last Ten Fiscal Years
(accrual basis of accounting)

Governmental Activities	Fiscal Year Ended June 30			
	2014	2015	2016	2017
Expenses - public safety:				
Salaries and benefits	\$ 266,764,367	\$ 335,419,737	\$ 316,292,785	\$ 327,515,166
Services and supplies	47,912,808	46,073,201	35,127,573	52,819,125
Depreciation and amortization	9,612,453	9,050,195	9,267,982	9,512,777
Interest on long-term debt	311,327	582,565	917,320	133,239
Total program expenses	<u>324,600,955</u>	<u>391,125,698</u>	<u>361,605,660</u>	<u>389,980,307</u>
Program revenues - public safety:				
Charges for services	106,874,513	113,150,325	117,263,679	121,875,157
Operating grants and contributions	10,339,966	11,410,019	12,165,015	11,992,438
Capital grants and contributions	1,462,540	9,182,195	3,331,088	1,040,129
Total program revenues	<u>118,677,019</u>	<u>133,742,539</u>	<u>132,759,782</u>	<u>134,907,724</u>
Net program revenues (expenses)	<u>(205,923,936)</u>	<u>(257,383,159)</u>	<u>(228,845,878)</u>	<u>(255,072,583)</u>
General revenues:				
Property taxes	190,873,689	205,141,237	219,840,417	232,832,758
Investment income (4)	982,541	946,282	1,848,365	1,236,818
Gain on disposal of capital assets	21,834	63,953	6,000	657,944
Miscellaneous (4)	1,040,664	1,128,586	2,629,203	4,234,934
Total general revenues	<u>192,918,728</u>	<u>207,280,058</u>	<u>224,323,985</u>	<u>238,962,454</u>
Changes in net position	<u>\$ (13,005,208)</u>	<u>\$ (50,103,101)</u>	<u>\$ (4,521,893)</u>	<u>\$ (16,110,129)</u>
		(1)		

SOURCE: OCFA Annual Comprehensive Financial Reports

NOTES:

(1) GASB Statement No. 68 was implemented during Fiscal Year 2014/15, which required that pension expense be adjusted annually to fully reflect the accrual-based cost incurred during the year. OCFA recognized an increase to its pension expense totaling \$39.9 million during the year ended June 30, 2015. That amount is included within salaries and benefits.

(2) GASB Statements No. 74, 75 and 85 were implemented during Fiscal Year 2017/18, which required that OPEB expense be adjusted annually to fully reflect the accrual-based cost incurred during the year. During the year ended June 30, 2018, OCFA recognized a decrease to its salary and benefits totaling \$7.2 million due to the implementation of these GASB statements.

(3) The City of Garden Grove became a member city of OCFA during Fiscal Year 2019/20 (August 2019).

(4) Beginning in Fiscal Year 2020/21, lease revenues from the RFOTC cell tower and Fullerton Airport hangar were reported as investment income rather than miscellaneous revenue. Amounts shown on this schedule for previous fiscal years have also been updated to reflect this change and may vary from the amounts originally reported in the financial statements.

2018	2019	2020	2021	2022	2023
\$ 323,845,042	\$ 339,249,853	\$ 352,573,221	\$ 331,869,650	\$ 249,802,878	\$ 346,185,496
57,275,465	62,877,930	84,600,263	82,748,977	93,296,815	101,221,979
10,084,196	10,531,098	12,137,499	12,961,222	13,232,063	25,712,134
70,751	11,444	-	-	-	1,191,326
<u>391,275,454</u>	<u>412,670,325</u>	<u>449,310,983</u>	<u>427,579,849</u>	<u>356,331,756</u>	<u>474,310,935</u>
132,634,280	128,320,646	156,740,363	169,343,205	174,072,175	173,110,122
13,920,686	15,454,060	29,275,482	31,323,104	38,289,243	52,867,337
16,875,139	454,200	3,850,481	1,332,000	401,221	18,386,450
<u>163,430,105</u>	<u>144,228,906</u>	<u>189,866,326</u>	<u>201,998,309</u>	<u>212,762,639</u>	<u>244,363,909</u>
<u>(227,845,349)</u>	<u>(268,441,419)</u>	<u>(259,444,657)</u>	<u>(225,581,540)</u>	<u>(143,569,117)</u>	<u>(229,947,026)</u>
250,326,172	264,267,387	277,721,815	290,310,882	302,861,759	326,138,528
2,439,702	4,494,924	3,374,813	462,789	(4,799,952)	5,388,518
719,372	-	12,641	174,666	17,777	-
4,838,512	1,062,240	1,740,904	1,786,052	4,020,895	7,623,310
<u>258,323,758</u>	<u>269,824,551</u>	<u>282,850,173</u>	<u>292,734,389</u>	<u>302,100,479</u>	<u>339,150,356</u>
<u>\$ 30,478,409</u>	<u>\$ 1,383,132</u>	<u>\$ 23,405,516</u>	<u>\$ 67,152,849</u>	<u>\$ 158,531,362</u>	<u>\$ 109,203,330</u>
(2)		(3)			

ORANGE COUNTY FIRE AUTHORITY
Fund Balances of Governmental Funds
Last Ten Fiscal Years
(modified accrual basis of accounting)

	Fiscal Year Ended June 30			
	2014	2015	2016	2017
General Fund:				
Nonspendable	\$ 30,560,638	\$ 31,127,148	\$ 36,779,845	\$ 33,750,548
Restricted (1)	738,650	1,256,361	2,337,390	3,309,986
Committed	784,617	691,265	584,464	549,651
Assigned (1)	61,263,536	69,333,798	78,934,013	78,400,495
Unassigned	22,156,848	17,864,685	34,421,993	31,346,672
Total General Fund	<u>\$ 115,504,289</u>	<u>\$ 120,273,257</u>	<u>\$ 153,057,705</u>	<u>\$ 147,357,352</u>
All other governmental funds:				
Nonspendable	\$ 284,349	\$ 32,946	\$ -	\$ 4,608
Restricted	1,044,040	533,232	533,232	533,232
Assigned	64,340,833	56,050,351	55,779,948	65,015,386
Total all other governmental funds	<u>\$ 65,669,222</u>	<u>\$ 56,616,529</u>	<u>\$ 56,313,180</u>	<u>\$ 65,553,226</u>

SOURCE: OCFA Annual Comprehensive Financial Reports

NOTES:

(1) General Fund restricted and assigned fund balance totals have been revised for comparability with current fiscal year calculations. Amounts shown on this schedule for years prior to Fiscal Year 2021/22 may vary from the amounts originally reported in the financial statements.

	2018	2019	2020	2021	2022	2023
\$	34,800,682	\$ 36,732,385	\$ 42,700,572	\$ 41,707,145	\$ 35,424,785	\$ 32,542,882
	3,376,801	3,666,427	5,939,111	7,106,303	9,487,598	12,044,728
	1,496,954	1,338,850	1,288,272	1,120,950	4,301,785	3,519,541
	83,074,597	94,306,294	106,306,363	119,954,162	132,511,586	154,226,631
	<u>35,352,256</u>	<u>32,680,670</u>	<u>34,353,935</u>	<u>20,391,894</u>	<u>18,756,847</u>	<u>26,725,234</u>
\$	<u>158,101,290</u>	<u>\$ 168,724,626</u>	<u>\$ 190,588,253</u>	<u>\$ 190,280,454</u>	<u>\$ 200,482,601</u>	<u>\$ 229,059,016</u>
\$	25,216	\$ 13,725	\$ 4,247	\$ 14,255	\$ 5,087	\$ 25,589
	533,232	391,477	391,477	434,763	611,120	30,171,716
	<u>59,924,778</u>	<u>45,076,939</u>	<u>42,451,644</u>	<u>49,295,111</u>	<u>42,895,548</u>	<u>50,696,852</u>
\$	<u>60,483,226</u>	<u>\$ 45,482,141</u>	<u>\$ 42,847,368</u>	<u>\$ 49,744,129</u>	<u>\$ 43,511,755</u>	<u>\$ 80,894,157</u>

ORANGE COUNTY FIRE AUTHORITY
Changes in Fund Balances of Governmental Funds
Last Ten Fiscal Years
(modified accrual basis of accounting)

	Fiscal Year Ended June 30			
	2014	2015	2016	2017
Revenues:				
Taxes	\$ 190,873,689	\$ 205,141,237	\$ 219,840,417	\$ 232,832,758
Intergovernmental	19,111,811	23,565,214	25,978,081	29,069,065
Charges for services	97,705,183	102,000,677	103,830,436	106,061,060
Use of money and property (2)	1,091,815	947,940	1,865,616	1,503,122
Miscellaneous (1,2)	1,537,556	1,595,318	2,606,413	4,365,243
Developer contributions	1,271,400	8,307,207	3,233,082	962,627
Total revenues	311,591,454	341,557,593	357,354,045	374,793,875
Expenditures:				
Current - public safety:				
Salaries and benefits	257,134,030	285,988,997	294,414,084	309,507,433
Services and supplies	40,187,878	40,490,370	36,303,618	48,087,618
Capital outlay	7,681,418	16,644,798	3,996,650	12,116,937
Debt service:				
Principal retirement	2,219,152	2,276,963	2,336,279	2,397,140
Interest and fiscal charges	421,845	585,501	935,881	400,887
Issuance costs	-	-	-	-
Total expenditures	307,644,323	345,986,629	337,986,512	372,510,015
Excess (deficiency) of revenues over (under) expenditures	3,947,131	(4,429,036)	19,367,533	2,283,860
Other financing sources (uses):				
Transfers in	5,370,375	6,845,320	78,187	33,724,099
Transfers out	(5,370,375)	(6,845,320)	(78,187)	(33,724,099)
Issuance of long-term debt	-	-	-	-
Sale of capital assets (1)	57,843	112,363	9,930	37,400
Insurance recoveries	360,803	32,948	121,288	1,218,433
Total other financing sources (uses)	418,646	145,311	131,218	1,255,833
Net change in fund balances	\$ 4,365,777	\$ (4,283,725)	\$ 19,498,751	\$ 3,539,693
Debt service as a percentage of noncapital expenditures	0.9%	0.9%	1.0%	0.8%

SOURCE: OCFA Annual Comprehensive Financial Reports

NOTES:

(1) Beginning in Fiscal Year 2018/19, proceeds from sale of certain non-capital assets were reported as miscellaneous revenue rather than sale of capital assets. Amounts shown on this schedule for previous fiscal years have also been updated to reflect this change and may vary from the amounts originally reported in the financial statements.

(2) Beginning in Fiscal Year 2020/21, lease revenues from the RFOTC cell tower and Fullerton Airport hangar were reported as use of money and property rather than miscellaneous revenue. Amounts shown on this schedule for previous fiscal years have also been updated to reflect this change and may vary from the amounts originally reported in the financial statements.

2018	2019	2020	2021	2022	2023
\$ 250,326,172	\$ 264,267,387	\$ 277,721,815	\$ 290,310,882	\$ 302,861,759	\$ 326,138,528
37,063,147	28,521,605	41,258,003	58,266,113	57,726,610	76,482,399
108,750,420	113,719,047	138,641,512	138,809,882	146,007,793	150,519,860
2,827,492	4,816,165	3,700,453	499,035	(4,799,952)	5,388,518
4,343,194	1,170,010	6,184,387	3,978,404	11,128,699	23,827,236
3,545,139	454,200	679,800	1,317,000	401,221	1,051,583
<u>406,855,564</u>	<u>412,948,414</u>	<u>468,185,970</u>	<u>493,181,316</u>	<u>513,326,130</u>	<u>583,408,124</u>
340,720,267	346,953,705	375,032,147	406,935,192	419,386,430	420,178,243
49,871,973	49,488,301	67,271,454	71,567,532	80,857,120	101,727,388
9,970,652	20,095,072	7,790,083	9,753,190	12,963,172	72,330,715
2,459,589	1,253,718	-	-	-	-
459,924	333,385	325,640	36,246	-	-
-	-	-	-	-	43,092
<u>403,482,405</u>	<u>418,124,181</u>	<u>450,419,324</u>	<u>488,292,160</u>	<u>513,206,722</u>	<u>594,279,438</u>
<u>3,373,159</u>	<u>(5,175,767)</u>	<u>17,766,646</u>	<u>4,889,156</u>	<u>119,408</u>	<u>(10,871,314)</u>
-	2,150,000	8,000,000	11,059,336	13,877,532	17,039,829
-	(2,150,000)	(8,000,000)	(11,059,336)	(13,877,532)	(17,039,829)
-	-	-	-	12,690	76,593,238
844,512	22,548	142,044	147,194	30,679	2,730
<u>1,456,267</u>	<u>775,470</u>	<u>1,320,164</u>	<u>1,552,612</u>	<u>1,632,834</u>	<u>234,163</u>
<u>2,300,779</u>	<u>798,018</u>	<u>1,462,208</u>	<u>1,699,806</u>	<u>1,676,203</u>	<u>76,830,131</u>
<u>\$ 5,673,938</u>	<u>\$ (4,377,749)</u>	<u>\$ 19,228,854</u>	<u>\$ 6,588,962</u>	<u>\$ 1,795,611</u>	<u>\$ 65,958,817</u>
0.7%	0.4%	0.1%	0.0%	0.0%	0.0%

Orange County Fire Authority



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ORANGE COUNTY FIRE AUTHORITY

Revenue Capacity Information

Assessed Value and Estimated Actual Value of Taxable Property – Presents information on the assessed property values of each city and the unincorporated area within the OCFA’s jurisdiction for each of the last ten fiscal years.

Property Tax Rates of Direct and Overlapping Governments – Presents the County of Orange’s direct property tax rate, as well as the rates of any overlapping governments that are applied to the same revenue base.

Principal Property Tax Payers – Presents information about the OCFA’s ten largest property tax payers for the current fiscal year, as compared to nine fiscal years ago.

Property Tax Levies and Collections – Presents information on the levy and subsequent collection of OCFA’s property taxes for each of the last ten fiscal years.

ORANGE COUNTY FIRE AUTHORITY
Assessed Value (1) and Estimated Actual Value of Taxable Property
Last Ten Fiscal Years
(dollars in thousands)

Jurisdiction	FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17
Buena Park	\$ 7,886,342	\$ 8,313,496	\$ 8,769,022	\$ 9,229,491
Garden Grove (4)	n/a	n/a	n/a	n/a
Placentia (5)	5,203,417	5,519,085	5,878,473	6,133,423
San Clemente	12,824,727	13,666,851	14,447,434	15,269,878
Santa Ana	21,119,683	22,075,383	23,013,226	23,886,126
Seal Beach	4,580,472	4,891,060	5,081,691	5,167,629
Stanton	2,144,270	2,297,508	2,433,266	2,569,937
Tustin	9,732,381	10,292,805	11,004,027	11,577,792
Westminster	7,176,141	7,628,669	8,279,644	8,410,335
Total cash contract cities (3)	70,667,433	74,684,857	78,906,783	82,244,611
Aliso Viejo	7,877,812	8,440,740	8,765,964	9,262,105
Cypress	5,854,809	6,104,218	6,463,650	6,751,019
Dana Point	9,126,750	9,787,132	10,513,667	11,209,516
Irvine	51,002,248	55,693,885	60,912,694	65,754,243
Laguna Hills	5,643,545	5,961,947	6,256,109	6,506,374
Laguna Niguel	12,402,919	13,270,851	14,015,647	14,571,803
Laguna Woods	2,237,288	2,424,736	2,620,217	2,772,774
Lake Forest	11,238,775	11,920,081	12,672,969	13,710,657
La Palma	1,744,907	1,829,353	1,904,950	1,998,105
Los Alamitos	1,674,933	1,778,110	1,887,771	1,961,259
Mission Viejo	13,639,460	14,533,544	15,262,434	15,835,376
Rancho Santa Margarita	6,759,144	7,231,597	7,572,862	7,810,951
San Juan Capistrano	6,039,344	6,443,224	6,828,239	7,190,143
Villa Park	1,466,599	1,527,255	1,596,806	1,674,085
Yorba Linda	11,857,840	12,668,130	13,488,124	14,098,053
Unincorporated	21,915,863	23,573,390	24,999,336	26,380,370
Total SFF jurisdictions (2)	170,482,236	183,188,193	195,761,439	207,486,833
Percentage change from prior year	3.40%	7.45%	6.86%	5.99%
Total assessed valuation	\$ 241,149,669	\$ 257,873,050	\$ 274,668,222	\$ 289,731,444
Total direct tax rate	0.11%	0.11%	0.11%	0.11%

SOURCE: County of Orange, Auditor-Controller, Assessed Valuations by Fiscal Year

http://acweb1.ocgov.com/ac/txfdr_Civica/av/

NOTES:

- (1) Assessed value is stated at taxable full cash value. These values may include an increased value over the base year for that portion of the city or district which lies within a redevelopment agency.
- (2) Assessed value for these cities is part of the Structural Fire Fund (SFF).
- (3) Cities pay for services on a cash contract basis. Assessed value is shown for comparison only.
- (4) The City of Garden Grove joined OCFA on August 16, 2019.
- (5) The City of Placentia was no longer a member of the OCFA beginning in Fiscal Year 2020/21.

FY 2017/18	FY 2018/19	FY 2019/20	FY 2020/21	FY 2021/22	FY 2022/23
\$ 9,771,180	\$ 10,534,143	\$ 11,010,946	\$ 11,489,594	\$ 11,855,322	\$ 12,589,754
n/a	n/a	17,647,291	18,531,828	19,305,133	20,300,953
6,445,280	6,778,269	7,057,342	n/a	n/a	n/a
16,078,965	16,904,336	17,783,910	18,559,898	19,331,274	20,620,279
25,232,515	26,520,241	27,943,961	29,080,200	30,541,317	32,471,833
5,428,187	5,625,920	5,981,331	6,200,421	6,402,225	6,857,456
2,679,870	2,836,469	3,015,953	3,303,024	3,635,925	3,847,721
12,399,614	13,043,122	13,658,894	14,373,207	14,813,295	15,767,388
8,907,507	9,391,194	9,801,405	10,290,576	10,675,124	11,263,281
<u>86,943,118</u>	<u>91,633,694</u>	<u>113,901,033</u>	<u>111,828,748</u>	<u>116,559,615</u>	<u>123,718,665</u>
9,757,603	10,320,678	10,706,653	11,057,982	11,357,670	11,852,955
7,049,085	7,492,895	7,865,560	8,175,217	8,469,982	9,069,906
12,184,560	12,716,978	13,330,883	13,901,090	14,477,213	15,778,385
71,898,708	78,439,756	85,045,012	90,058,179	95,193,732	100,230,096
6,744,152	7,169,367	7,360,865	7,648,234	7,983,815	8,263,937
15,341,994	15,925,158	16,566,379	17,211,775	17,682,694	18,623,846
2,949,710	3,141,574	3,308,199	3,655,931	3,634,773	3,775,181
14,701,561	15,968,847	17,239,225	17,826,418	18,890,933	20,061,522
2,042,167	2,137,829	2,218,935	2,294,417	2,379,789	2,494,402
2,068,339	2,165,016	2,279,998	2,430,512	2,609,209	2,763,749
16,538,595	17,362,619	18,087,505	18,749,279	19,367,780	20,452,244
8,247,183	8,640,697	8,947,481	9,238,425	9,475,954	9,997,272
7,600,135	7,959,762	8,336,034	8,820,714	9,244,605	9,826,866
1,755,259	1,836,352	1,912,173	1,993,610	2,071,954	2,197,619
14,862,265	15,623,191	16,292,118	16,933,257	17,534,010	18,505,831
28,230,720	29,526,544	31,132,442	32,498,066	33,578,578	35,923,481
<u>221,972,036</u>	<u>236,427,263</u>	<u>250,629,462</u>	<u>262,493,106</u>	<u>273,952,691</u>	<u>289,817,292</u>
6.98%	6.51%	6.01%	4.73%	4.37%	5.79%
<u>\$ 308,915,154</u>	<u>\$ 328,060,957</u>	<u>\$ 364,530,495</u>	<u>\$ 374,321,854</u>	<u>\$ 390,512,306</u>	<u>\$ 413,535,957</u>
0.11%	0.11%	0.11%	0.11%	0.11%	0.11%

(5) In 1978, the voters of the State of California passed Proposition 13 which limited property taxes to a total maximum rate of 1% based upon the assessed value of the property being taxed. Each year, the assessed value of property may be increased by an "inflation factor" (limited to a maximum increase of 2%). With few exceptions, property is only re-assessed at the time that it is sold to a new owner. At that point, the new assessed value is reassessed at the purchase price of the property sold. The assessed valuation data shown above represents the only data currently available with respect to the actual market value of taxable property and is subject to the limitations described above.

ORANGE COUNTY FIRE AUTHORITY
Property Tax Rates of Direct and Overlapping Governments
Last Ten Fiscal Years

Fiscal Year Ended June 30	County of Orange (B)			OCFA (B)
	Overlapping	Direct		Direct
	Basic Operating Levy	Debt Service	Total	Basic Operating Levy
2014	1.00000	0.00000	1.00000	0.0011
2015	1.00000	0.00000	1.00000	0.0011
2016	1.00000	0.00000	1.00000	0.0011
2017	1.00000	0.00000	1.00000	0.0011
2018	1.00000	0.00000	1.00000	0.0011
2019	1.00000	0.00000	1.00000	0.0011
2020	1.00000	0.00000	1.00000	0.0011
2021	1.00000	0.00000	1.00000	0.0011
2022	1.00000	0.00000	1.00000	0.0011
2023	1.00000	0.00000	1.00000	0.0011
	(A)	(A)		(C)

SOURCE:

- (A) County of Orange, Auditor-Controller, Tax Rate Books by Fiscal Year
<http://acdcweb01.ocgov.com/about/central-accounting/property-tax-accounting/tax-rate-book>
- (B) Data for the entire County of Orange is not limited to the cities/unincorporated areas served by the Orange County Fire Authority. Data for OCFA is limited to its member cities that are part of the Structural Fire Fund (SFF).
- (C) Direct tax rate calculation per the "Assessed Value and Estimated Actual Value of Taxable Property" schedule included in this report.

NOTE: This schedule presents tax rates per \$100 of assessed/full cash value.

ORANGE COUNTY FIRE AUTHORITY
Principal Property Tax Payers
Current and Nine Years Ago
(Dollars in Thousands)

Property Tax Payer	Fiscal Year 2013/14 (A)			Fiscal Year 2022/23 (B)		
	Actual Taxes		Percent of	Actual Taxes		Percent
	Levied	Rank	Total Taxes Levied	Levied	Rank	of Total Taxes Levied
Irvine Company	\$ 114,098	1	2.22%	\$ 191,000	1	2.45%
Walt Disney Parks & Resorts U.S.	\$ 51,566	2	1.00%	\$ 73,265	2	0.94%
Southern California Edison Company (Edison International)	\$ 33,028	3	0.64%	\$ 58,007	3	0.74%
Sempra Energy (SDG&E, Southern California Gas)	\$ 4,356	10	0.08%	\$ 17,884	4	0.23%
United Laguna Hills Mutual (Laguna Woods)	\$ 7,072	6	0.14%	\$ 12,231	5	0.16%
BEX Portfolio, Inc.				\$ 8,846	6	0.11%
AES Corporation				\$ 7,930	7	0.10%
Five Point Holdings, LLC				\$ 7,549	8	0.10%
Bella Terra Associates, LLC				\$ 6,480	9	0.08%
LBA IV-PPI LLC (LBA Realty)				\$ 6,312	10	0.08%
Heritage Fields El Toro	\$ 10,107	4	0.20%			
Pacific Bell Telephone Company (AT&T; SBC California)	\$ 8,223	5	0.16%			
Oxy USA, Inc.	\$ 6,175	7	0.12%			
Linn Western Operating, Inc.	\$ 4,690	8	0.09%			
OC/SD Holdings LLC	\$ 4,653	9	0.09%			

SOURCE:

(A) OCFA Annual Comprehensive Financial Report for Fiscal Year 2013/14, which was based on the County of Orange, Treasurer-Tax Collector's "Top 10 Secured Taxpayer List" for Fiscal Year 2013/14.

(B) County of Orange, Treasurer-Tax Collector, Top 20 Secured Taxpayer List for Fiscal Year 2021/22 (<http://www.ttc.ocgov.com/rptstats/stats>). Updated Fiscal Year 2022/23 data is not available from the County of Orange at the time of this report's publication.

NOTE:

This schedule presents data for the entire County of Orange and is not limited to the cities/unincorporated areas served by the Orange County Fire Authority.

ORANGE COUNTY FIRE AUTHORITY
Property Tax Levies and Collections
Last Ten Fiscal Years
(dollars in thousands)

Fiscal Year Ended June 30	Taxes Levied for the Fiscal Year	Collected within the Fiscal Year of Levy		Collection of Prior Year Levies		Collection of Penalties and Interest		Total Collection to Date		Collection of Property Tax Increment Pass-Through (1)	
		Amount	% of Levy	Teeter Plan	Delinquencies and Other	Delinquency Penalties	Interest	Total Amounts Collected	% of Levy	RDA	H&S
2014	\$192,876	\$187,828	97.4%	\$ 1,371	\$ 49	\$ 32	\$ 37	\$189,317	98.2%	\$ 6,958	\$ 208
2015	\$207,775	\$202,356	97.4%	\$ 1,336	\$ 50	\$ 32	\$ 38	\$203,812	98.1%	\$ 8,110	\$ 605
2016	\$224,452	\$216,219	96.3%	\$ 1,368	\$ 157	\$ 38	\$ 73	\$217,855	97.1%	\$ 9,180	\$ 639
2017	\$237,082	\$229,934	97.0%	\$ 1,329	\$ 140	\$ 35	\$ 105	\$231,543	97.7%	\$ 9,237	\$ 662
2018	\$253,371	\$246,607	97.3%	\$ 1,461	\$ 156	\$ 36	\$ 189	\$248,449	98.1%	\$ 11,095	\$ 694
2019	\$267,727	\$262,561	98.1%	\$ 1,737	\$ 149	\$ 42	\$ 248	\$264,737	98.9%	\$ 9,627	\$ 732
2020	\$280,282	\$273,453	97.6%	\$ 2,202	\$ 165	\$ 47	\$ 342	\$276,209	98.5%	\$ 13,256	\$ 774
2021	\$292,841	\$286,140	97.7%	\$ 1,825	\$ 257	\$ 68	\$ 206	\$288,496	98.5%	\$ 15,265	\$ 812
2022	\$308,133	\$299,004	97.0%	\$ 2,089	\$ 199	\$ 50	\$ 79	\$301,421	97.8%	\$ 16,897	\$ 325
2023	\$331,928	\$321,782	96.9%	\$ 2,336	\$ (78)	\$ 38	\$ 404	\$324,482	97.8%	\$ 16,846	\$ 870

SOURCE:

County of Orange, Auditor-Controller, Tax Ledger Detail by Fiscal Year
 Tax Ledger Selection C84 Orange County Fire Authority
http://tax.ocgov.com/acledger/choice_eGov.asp

NOTES:

- (1) Upon dissolution of California redevelopment agencies during Fiscal Year 2011/12, property tax increment formerly remitted to OCFA by its member city redevelopment agencies was instead deposited into the newly formed Redevelopment Property Tax Trust Fund (RPTTF) from which the Auditor/Controller made disbursements on behalf of the successor agencies. There is no tax levy associated with these collections; thus, they have been excluded from the "% of levy collected" calculations.

ORANGE COUNTY FIRE AUTHORITY

Debt Capacity Information

Ratios of Outstanding Debt by Type – Presents information on the OCFA’s total outstanding debt for each of the last ten fiscal years, including the ratio of outstanding debt to median family income and the calculation of outstanding debt per capita.

The following schedules are not included in OCFA’s Annual Comprehensive Financial Report:

Computation of Legal Debt Margin – OCFA is not subject to a legal debt margin.

Ratios of General Bonded Debt Outstanding – OCFA has not had any bonded debt outstanding for the last ten fiscal years.

Pledged Revenue Coverage – Debt of OCFA is not secured by a pledged revenue stream.

Computation of Direct and Overlapping Debt – This schedule is not required for regional governments such as OCFA.

ORANGE COUNTY FIRE AUTHORITY
Ratios of Outstanding Debt by Type
Last Ten Fiscal Years
(dollars in thousands)

Fiscal Year Ended June 30	Governmental Activities (A)		(B)	(C)		
	Capital Lease Purchase Agreements	Total Outstanding Debt	County of Orange Median Household Income	Debt as a Percentage of Household Income	Population (OCFA Jurisdiction Only)	Debt per Capita
2014	\$ 10,724	\$ 10,724	\$85	12616.5%	1,734	\$6
2015	\$ 8,447	\$ 8,447	\$86	9822.1%	1,755	\$5
2016	\$ 6,110	\$ 6,110	\$85	7188.2%	1,784	\$3
2017	\$ 3,713	\$ 3,713	\$88	4219.3%	1,793	\$2
2018	\$ 1,254	\$ 1,254	\$93	1348.4%	1,808	\$1
2019	\$ -	\$ -	\$98	0.0%	1,808	\$0
2020	\$ -	\$ -	\$103	0.0%	1,966	\$0 (1)
2021	\$ -	\$ -	\$107	0.0%	1,891	\$0 (2)
2022	\$ -	\$ -	\$119	0.0%	1,910	\$0
2023	\$ 57,882	\$ 57,882	\$128	45220.3%	1,894	\$31

SOURCES:

- (A) Details regarding OCFA's outstanding debt can be found in the notes to the financial statements.
- (B) U.S. Department of Housing and Urban Development, Median Family Income Documentation System by Fiscal Year (estimate) <http://www.huduser.org/portal/datasets/il.html>
- (C) California Department of Finance, Population and Housing Estimates as of January 1 <http://www.dof.ca.gov/forecasting/demographics/estimates>

NOTES:

- (1) The population data presented in this schedule includes only the cities and unincorporated county areas served by the OCFA. Since the City of Garden Grove became a member of the OCFA in August 2019, its population data is included with population totals beginning in Fiscal Year 2019/20. The Fiscal Year 2019/20 population total includes 174,801 for the City of Garden Grove.
- (2) The population data presented in this schedule includes only the cities and unincorporated county areas served by the OCFA. Since the City of City of Placentia is no longer a member of the OCFA effective July 1, 2020, its population data is not included with population totals beginning in Fiscal Year 2020/21. The Fiscal Year 2020/21 population total excludes 51,173 for the City of Placentia.

ORANGE COUNTY FIRE AUTHORITY

Demographic and Economic Information

Demographic and Economic Indicators – Presents information regarding population, personal income, per capita income and the unemployment rate for the County of Orange for each of the last ten fiscal years.

Population and Housing Statistics – Presents information on population and housing units of each city and the unincorporated area within the OCFA’s jurisdiction for the current fiscal year, as compared to nine fiscal years ago.

Principal Employers – Presents information about the ten largest employers within the County of Orange’s jurisdiction for the current fiscal year, as compared to nine fiscal years ago.

ORANGE COUNTY FIRE AUTHORITY
Demographic and Economic Indicators
Last Ten Fiscal Years
(amounts in thousands)

Fiscal Year Ended June 30	(A)	(B)		(C)
	Population of Orange County	Total Personal Income	Per Capita Income	Unemployment Rate
2014	3,114	\$ 179,141,000	\$ 57,528	5.7
2015	3,147	\$ 193,081,000	\$ 61,354	4.7
2016	3,183	\$ 200,783,000	\$ 63,080	4.3
2017	3,194	\$ 205,052,000	\$ 64,199	3.8
2018	3,221	\$ 212,807,000	\$ 66,069	3.2
2019	3,222	\$ 221,716,000	\$ 68,813	3.0
2020	3,194	\$ 241,153,000	\$ 75,502	13.1
2021	3,154	\$ 256,700,000	\$ 81,389	6.9
2022	3,162	\$ 257,865,000	\$ 81,551	3.2
2023	3,137	\$ 266,043,000	\$ 84,808	3.7

SOURCES:

- (A) California Department of Finance
 Population and Housing Estimates Table E-5, As of January 1
<http://www.dof.ca.gov/forecasting/demographics/estimates>

- (B) Chapman University Economic & Business Review
 Annual History and Forecasts
 Years 2018 - 2022 have been updated with revised data available as of June 30, 2023.
 The most recent year (2023) is a forecasted estimate.

- (C) Bureau of Labor Statistics (<https://www.bls.gov/data/>), Local Area Unemployment Statistics, Anaheim-Santa Ana-Irvine, CA Metropolitan Statistical Area. Figures reflect revised inputs, re-estimation, and new statewide control, if applicable. Unemployment rate is the monthly rate for June of the applicable fiscal year (i.e., June 2023 for FY 2022/23). The amount reported for the most recent fiscal year is based on preliminary BLS data.

NOTE:

Data presented on this schedule is for the County of Orange and is not limited to the cities/county unincorporated areas served by the OCFA.

ORANGE COUNTY FIRE AUTHORITY
Population and Housing Statistics
Current and Nine Years Ago

Jurisdiction	Population			Housing Units		
	2014	2023	% Change	2014	2023	% Change
Aliso Viejo	49,951	50,766	1.6%	19,342	20,189	4.4%
Buena Park	82,344	83,517	1.4%	24,711	25,868	4.7%
Cypress	48,886	49,818	1.9%	16,128	16,995	5.4%
Dana Point	34,037	33,155	-2.6%	15,964	16,534	3.6%
Garden Grove (1)	173,953	171,183	-1.6%	47,723	49,203	3.1%
Irvine	242,651	303,051	24.9%	90,562	125,211	38.3%
Laguna Hills	30,857	30,525	-1.1%	10,995	11,433	4.0%
Laguna Niguel	64,460	64,702	0.4%	25,424	27,827	9.5%
Laguna Woods	16,581	17,450	5.2%	13,079	13,414	2.6%
Lake Forest	79,139	87,127	10.1%	27,257	31,631	16.0%
La Palma	15,896	15,332	-3.5%	5,234	5,275	0.8%
Los Alamitos	11,729	12,129	3.4%	4,380	4,541	3.7%
Mission Viejo	95,334	91,846	-3.7%	34,300	35,116	2.4%
Rancho Santa Margarita	48,834	47,066	-3.6%	17,284	17,606	1.9%
San Clemente	64,874	63,237	-2.5%	26,025	26,757	2.8%
San Juan Capistrano	35,900	35,089	-2.3%	12,160	12,570	3.4%
Santa Ana	331,953	299,630	-9.7%	77,133	82,058	6.4%
Seal Beach	24,591	24,647	0.2%	14,539	14,675	0.9%
Stanton	38,963	39,084	0.3%	11,299	12,102	7.1%
Tustin	78,360	79,558	1.5%	26,957	28,405	5.4%
Villa Park	5,935	5,790	-2.4%	2,020	2,030	0.5%
Westminster	91,652	90,498	-1.3%	27,727	28,268	2.0%
Yorba Linda	67,069	67,068	0.0%	22,856	23,763	4.0%
Unincorporated	121,473	132,114	8.8%	39,506	44,578	12.8%
Total OCFA, adjusted (1)	1,855,422	1,894,382	2.1%	612,605	676,049	10.4%
Total non-OCFA (2)	1,258,569	1,242,782	-1.3%	450,361	473,894	5.2%
Total Orange County	<u>3,113,991</u>	<u>3,137,164</u>	0.7%	<u>1,062,966</u>	<u>1,149,943</u>	8.2%
Total OCFA, adjusted	1,855,422			612,605		
Less: Garden Grove totals	(173,953)			(47,723)		
Plus: Placentia totals	52,094			17,066		
Total OCFA, actual as reported nine years ago	<u>1,733,563</u>	<u>1,894,382</u>	9.3%	<u>581,948</u>	<u>676,049</u>	16.2%

SOURCE: California Department of Finance, Population and Housing Estimates Table E-5

As of January 1, 2014 and 2023 <http://www.dof.ca.gov/forecasting/demographics/estimates>

NOTE:

- (1) Before Garden Grove became an OCFA member city in August 2019, the city's data was included in the "non-OCFA" total. However, Garden Grove's 2014 data has been identified separately for comparison purposes.
- (2) Prior to Fiscal Year 2020/21, data for the City of Placentia was presented separately as an OCFA member. Effective July 1, 2020, the city is no longer a member of OCFA and its data is combined in the "non-OCFA" total. Placentia's 2014 data has also been reported in the "non-OCFA" total for comparison purposes.

ORANGE COUNTY FIRE AUTHORITY
Principal Employers
Current and Nine Years Ago

Employer	Fiscal Year 2013/14			Fiscal Year 2022/23		
	Number of Employees	Rank	Percent of Total Employment	Number of Employees	Rank	Percent of Total Employment
University of California, Irvine	21,800	2	1.42%	26,182	1	1.63%
Walt Disney Co.	25,000	1	1.63%	25,000	2	1.56%
County of Orange	17,257	3	1.13%	18,388	3	1.15%
Providence				13,079	4	0.82%
Kaiser Permanente	6,300	6	0.41%	8,800	5	0.55%
Albertsons				7,853	6	0.49%
Hoag Memorial Hospital				7,051	7	0.44%
Walmart, Inc.				6,300	8	0.39%
Target Corporation	5,400	9	0.35%	6,000	9	0.37%
MemorialCare (MemorialCare Health Systems)	5,545	8	0.36%	5,490	10	0.34%
St. Joseph Health System	11,679	4	0.76%			
Boeing Co.	6,873	5	0.45%			
Bank of America Corporation	6,000	7	0.39%			
Cedar Fair, LP	5,200	10	0.34%			

SOURCE:

County of Orange Annual Comprehensive Financial Report for Fiscal Year 2021/22

For years ended June 30, 2022 and 2013

Amounts are reported one year in arrears due to availability of data at time of publication of this document.

<http://acdcweb01.ocgov.com/reports/acfrreports/>

NOTE:

Data presented on this schedule is for the County of Orange and is not limited to the cities/county unincorporated areas served by the OCFA.

ORANGE COUNTY FIRE AUTHORITY

Operating Information

Authorized Positions by Unit – Presents the number of authorized positions by unit for each of the last ten fiscal years.

Frozen Positions by Unit – Presents the number of frozen positions by unit as of June 30 for each of the last ten fiscal years.

Jurisdiction Information – Presents information on the OCFA’s member agencies, square mile area served, population served, and number of fire stations for each of the last ten fiscal years.

Incidents by Major Category Definitions – Provides OCFA’s definitions for categories of major incidents.

Incidents by Type – Presents the number of OCFA major incidents by category for each of the last ten fiscal years.

Incidents by Member Agency – Presents the number of OCFA major incidents by member agency for each of the last ten fiscal years.

Capital Equipment by Category – Presents the historical cost and quantity of capital equipment by category for each of the last ten fiscal years.

Capital Vehicles by Category – Presents the historical cost and quantity of capital vehicles by category for each of the last ten fiscal years.

Map of Division/Battalion Boundaries and Station Locations – This Orange County map identifies the areas included within OCFA’s jurisdiction, the boundaries of its divisions/battalions, and the locations of all OCFA fire stations.

List of Stations by Member Agency – Presents a list of OCFA fire stations and street addresses by member agency.

Description of the Organization, Programs and Service Delivery – Provides an overview of the activities and responsibilities carried out by each of the OCFA’s departments.

ORANGE COUNTY FIRE AUTHORITY
Authorized Positions by Unit
Last Ten Fiscal Years

Unit	As of June 30									
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Firefighter	1,011	1,011	1,023	1,023	1,048	1,153	1,152	1,151	1,158	1,184
Fire Management	45	45	45	45	45	52	53	53	54	53
General	205	205	213	213	211	252	248	248	246	248
Supervisory Management	27	27	27	27	30	32	33	34	34	34
Supported Employment	4	4	4	4	4	4	4	4	4	4
Administrative Management	44	44	43	43	43	41	46	47	50	50
Executive Management	7	8	8	8	7	10	10	10	10	11
Subtotal	1,343	1,344	1,363	1,363	1,388	1,544	1,546	1,547	1,556	1,584
Board Director	-	-	-	-	25	25	25	25	25	25
Total authorized positions	<u>1,343</u>	<u>1,344</u>	<u>1,363</u>	<u>1,363</u>	<u>1,413</u>	<u>1,569</u>	<u>1,571</u>	<u>1,572</u>	<u>1,581</u>	<u>1,609</u>
Funded positions:										
General Operating Fund	<u>1,240</u>	<u>1,244</u>	<u>1,274</u>	<u>1,284</u>	<u>1,400</u>	<u>1,566</u>	<u>1,541</u>	<u>1,540</u>	<u>1,577</u>	<u>1,596</u>
Total funded positions	<u>1,240</u>	<u>1,244</u>	<u>1,274</u>	<u>1,284</u>	<u>1,400</u>	<u>1,566</u>	<u>1,541</u>	<u>1,540</u>	<u>1,577</u>	<u>1,596</u>
Unfunded positions:										
Unbudgeted positions	3	3	3	3	-	-	-	-	-	-
Frozen	<u>100</u>	<u>97</u>	<u>86</u>	<u>76</u>	<u>13</u>	<u>3</u>	<u>30</u>	<u>32</u>	<u>4</u>	<u>13</u>
Total unfunded positions	<u>103</u>	<u>100</u>	<u>89</u>	<u>79</u>	<u>13</u>	<u>3</u>	<u>30</u>	<u>32</u>	<u>4</u>	<u>13</u>
Total authorized positions	<u>1,343</u>	<u>1,344</u>	<u>1,363</u>	<u>1,363</u>	<u>1,413</u>	<u>1,569</u>	<u>1,571</u>	<u>1,572</u>	<u>1,581</u>	<u>1,609</u>
Increase (decrease) from prior fiscal year:										
Total funded positions	2	4	30	10	116	166	(25)	(1)	37	19
Total unfunded positions	<u>(2)</u>	<u>(3)</u>	<u>(11)</u>	<u>(10)</u>	<u>(66)</u>	<u>(10)</u>	<u>27</u>	<u>2</u>	<u>(28)</u>	<u>9</u>
Total authorized positions	<u>-</u>	<u>1</u>	<u>19</u>	<u>-</u>	<u>50</u>	<u>156</u>	<u>2</u>	<u>1</u>	<u>9</u>	<u>28</u>
					(1)	(2)				(3)

SOURCE: OCFA Treasury Division, Budget Section

NOTES:

- (1) During Fiscal Year 2017/18, Board Members were converted into employee positions and added to the authorized position control (25 positions).
- (2) The net increase of total authorized positions during Fiscal Year 2018/19 included 99 authorized positions for employees transitioning from the City of Garden Grove (74 Firefighter Unit, 3 Fire Management Unit, 22 General Unit).
- (3) The net increase of total authorized positions during Fiscal Year 2022/23 included 20 authorized positions for a state-funded hand crew (20 Firefighter Unit).

ORANGE COUNTY FIRE AUTHORITY
Frozen Positions by Unit
Last Ten Fiscal Years

Unit / Position	As of June 30									
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Firefighter Unit:										
Fire Apparatus Engineer	24	24	21	20	-	-	6	6	-	-
Fire Captain	27	27	24	22	3	1	7	7	1	1
Fire Pilot	1	1	1	1	-	-	-	-	-	-
Firefighter	18	18	18	18	-	-	15	15	-	-
Hand Crew Firefighter Limited Term	-	-	-	-	-	-	-	-	-	9
Heavy Fire Equipment Operator	1	1	1	1	-	-	-	-	-	-
Total Firefighter Unit	71	71	65	62	3	1	28	28	1	10
Fire Management Unit:										
Fire Battalion Chief	2	2	2	1	-	-	-	-	-	-
Total Fire Management Unit	2	2	2	1	-	-	-	-	-	-
General Unit:										
Accountant	1	1	1	-	-	-	-	-	-	-
Administrative Assistant	5	5	4	1	1	-	-	-	-	-
Business Analyst	1	1	1	-	-	-	-	-	-	-
Communications Installer	-	-	-	-	-	-	-	1	1	1
Communications Installer (Part-Time)	-	-	-	-	-	-	-	1	1	1
Fire Equipment Technician	1	1	1	-	-	-	-	-	-	-
Fire Prevention Analyst	4	4	4	4	2	-	-	-	-	-
Fire Prevention Specialist	2	-	-	-	-	-	-	-	-	-
Human Resources Analyst	1	1	-	-	-	-	-	-	-	-
Office Services Specialist	3	3	-	-	-	1	1	1	-	-
Senior Fire Prevention Specialist	2	2	2	2	2	-	-	-	-	-
Total General Unit	20	18	13	7	5	1	1	3	2	2
Supervisory Management Unit:										
Assistant Fire Marshal	1	1	1	1	1	-	-	-	-	-
Information Technology Supervisor	1	1	-	-	-	-	-	-	-	-
Senior Fire Communications Supervisor	-	-	-	-	1	-	-	-	-	-
Total Supervisory Management Unit	2	2	1	1	2	-	-	-	-	-
Administrative Management Unit:										
Assistant IT Manager	-	-	1	1	1	-	-	-	-	-
Benefits Services Manager	-	-	-	1	-	-	-	-	-	-
Management Analyst	1	1	1	1	1	-	-	-	-	-
ODT Program Manager	1	-	-	-	-	1	1	1	1	1
Senior Accountant	2	2	2	2	1	-	-	-	-	-
Senior Human Resources Analyst	1	1	1	-	-	-	-	-	-	-
Total Administrative Management Unit	5	4	5	5	3	1	1	1	1	1
Total frozen positions	100	97	86	76	13	3	30	32	4	13

SOURCE: Orange County Fire Authority, Treasury Division, Budget Section

ORANGE COUNTY FIRE AUTHORITY
Jurisdiction Information
Last Ten Fiscal Years

Fiscal Year Ended June 30	(A)	(B)	(C)	(A)	New and Closed Station(s)	
	Number of Member Agencies	Square Mile Area Served	Population Served	Number of Stations	+/-	Description
2014	24	571	1,733,563	71	-	
2015	24	571	1,755,436	71	-	
2016	24	576	1,783,505	72	1	New Station 56 (County/Rancho Mission Viejo)
2017	24	576	1,793,040	72	-	
2018	24	576	1,807,862	72	-	
2019	24	576	1,807,560	72	-	
2020	25	593	1,966,019	79	7	New Stations 80 through 86 (Garden Grove)
2021	24	587	1,891,414	77	(2)	Removed Stations 34 and 35 (Placentia)
2022	24	587	1,910,233	77	-	
2023	24	586	1,894,382	77	-	

SOURCES:

- (A) Orange County Fire Authority, Clerk of the Authority
- (B) Orange County Fire Authority, Geographic Information Systems
- (C) California Department of Finance, Population and Housing Estimates as of January 1
<http://www.dof.ca.gov/forecasting/demographics/estimates>

NOTES: The City of Garden Grove became an OCFA member city in Fiscal Year 2019/20.
The City of Placentia was no longer an OCFA member city effective Fiscal Year 2020/21.

ORANGE COUNTY FIRE AUTHORITY
Incidents by Major Category Definitions

Fire: This category includes fire responses, even if the fire has been extinguished upon arrival. This category also includes combustion explosions with no resulting fire. Examples of this category include structure fires, rubbish fires, dumpster fires, and vehicle fires.

Rupture/Explosion: This category includes vessels or containers that suffer failure or near failure due to extreme pressure from either an outside source, such as direct heating, or internally due to a cooling system failure or over-filling, such as a propane tank. Examples of this category also include explosions from bombs, dynamite, or similar explosives.

Rescue/EMS: This category includes all medical aids, illness, and heart attacks, as well as traffic accidents and missing persons.

Hazardous Condition: This category includes Hazardous Materials incidents; electrical wire arcing; suspected drug labs; or situations where there is a perceived problem that may prove to be a potential emergency.

Service Call: This category includes incidents for persons in distress, such as a lock-in or lock-out of a vehicle or dwelling creating an emergency situation or critical need, and smoke or odor problems. This category would also include moving units from one station to another to provide area coverage.

Good Intent: This category includes incidents that are cleared prior to arrival, such as a medical aid where the injured party has left the scene, or the initial information indicated that there were injuries and upon arrival no persons were injured. This category may also include calls where the informant has mistaken steam for smoke.

False Alarm: Some examples of the incidents in this category are malicious mischief calls, system malfunctions, and the accidental tripping of an interior alarm sensor or device.

Natural Disaster: This category includes incidents that are not normal occurrences, such as earthquakes, lightning strikes, hurricanes, and other weather or natural events.

SOURCE: Orange County Fire Authority, Emergency Command Center & Emergency Strategic Services Divisions

ORANGE COUNTY FIRE AUTHORITY
Incidents by Type
Last Ten Fiscal Years

Fiscal Year Ended June 30 (1)	Fire	Rupture/ Explosion	Rescue/ EMS	Hazardous Condition	Service Call	Good Intent	False Alarm	Natural Disaster	Other	Total
2014	1,936	220	83,762	1,254	6,978	12,411	6,238	6	220	113,025
2015	1,898	229	94,740	1,220	6,996	12,046	6,515	5	345	123,994
2016	2,338	197	102,994	1,314	7,921	13,261	6,575	6	9	134,615
2017	2,372	192	106,679	1,466	7,819	14,207	6,644	37	67	139,483
2018	2,651	147	110,327	1,163	7,955	14,010	6,060	3	68	142,384
2019	2,161	154	111,044	1,322	6,948	14,353	7,016	13	589	143,600
2020	2,313	226	114,758	1,348	7,978	18,532	7,482	12	137	152,786 (2)
2021	2,688	221	113,735	1,317	8,777	18,737	6,616	27	171	152,289 (2,3)
2022	2,863	177	127,367	1,203	9,406	21,444	6,973	22	144	169,599
2023	2,536	130	133,591	1,139	9,879	22,286	7,723	42	157	177,483

SOURCE:
Orange County Fire Authority, Command & Emergency Planning Division

- NOTES:
- (1) Response statistics are normally reported on a calendar year basis in other reports. These statistics have been reported on the fiscal year basis, July through June.
 - (2) The City of Garden Grove joined the OCFA effective August 16, 2019. Fiscal Year 2019/20 data is reported only for the portion of the fiscal year during which the city was a member of OCFA. Fiscal Year 2020/21 data includes the first full year of Garden Grove activity.
 - (3) Effective July 1, 2020, the City of Placentia was no longer a member of the OCFA.

ORANGE COUNTY FIRE AUTHORITY
Incidents by Member Agency
Last Ten Fiscal Years

Fiscal Year Ended June 30 (1)

Member	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Aliso Viejo	2,194	2,420	2,511	2,654	2,810	2,871	3,022	3,172	3,347	3,666
Buena Park	6,057	6,569	7,016	7,053	7,193	7,242	7,175	7,363	8,347	8,481
Cypress	2,633	2,833	3,013	3,145	3,238	3,292	3,215	3,162	3,631	3,765
Dana Point	2,925	3,297	3,291	3,663	3,717	3,399	3,343	3,334	3,692	3,820
Garden Grove (2)	n/a	n/a	n/a	n/a	n/a	n/a	11,288	13,557	15,217	15,477
Irvine	12,896	13,875	14,688	15,967	16,325	16,797	16,481	15,704	18,744	19,938
La Palma	925	1,036	1,059	1,212	1,303	1,282	1,224	1,210	1,352	1,362
Laguna Hills	2,584	2,675	2,887	3,078	3,303	3,303	3,122	3,263	3,842	3,878
Laguna Niguel	3,685	3,584	3,861	4,054	3,947	4,192	4,421	4,268	4,918	5,246
Laguna Woods	4,306	4,847	5,319	5,636	5,281	5,342	4,967	5,353	5,548	5,706
Lake Forest	4,297	4,651	4,995	5,474	5,333	5,335	5,378	5,629	6,426	6,506
Los Alamitos	1,123	1,254	1,380	1,360	1,477	1,468	1,405	1,363	1,553	1,534
Mission Viejo	6,791	7,072	7,508	7,777	8,041	7,989	7,718	7,512	8,864	9,504
Placentia (3)	2,806	2,981	3,132	3,325	3,609	3,564	3,616	n/a	n/a	n/a
Rancho Santa Margarita	2,111	2,254	2,415	2,447	2,542	2,366	2,521	2,518	2,574	2,915
San Clemente	4,334	4,668	5,080	5,311	5,239	5,069	4,999	5,168	5,657	5,820
San Juan Capistrano	2,934	3,164	3,629	3,899	3,931	3,786	3,571	3,552	4,090	4,263
Santa Ana	19,303	21,465	23,455	25,074	26,707	27,518	27,335	27,493	29,340	31,274
Seal Beach	3,343	3,783	4,882	4,753	4,591	4,216	4,300	4,276	4,760	4,937
Stanton	2,879	3,113	3,413	3,396	3,284	3,343	3,645	3,701	4,134	4,357
Tustin	4,614	5,205	5,406	5,419	5,470	5,748	5,623	5,780	6,392	6,406
Villa Park	338	378	452	475	448	480	469	448	450	491
Westminster	6,201	6,880	7,442	7,560	7,702	7,772	7,945	8,357	9,053	9,152
Yorba Linda	3,185	3,547	3,716	3,747	4,059	4,146	4,023	4,168	4,520	5,023
Unincorporated	6,073	6,496	6,719	7,390	7,437	7,573	7,788	8,065	8,733	9,358
	<u>108,537</u>	<u>118,047</u>	<u>127,269</u>	<u>133,869</u>	<u>136,987</u>	<u>138,093</u>	<u>148,594</u>	<u>148,416</u>	<u>165,184</u>	<u>172,879</u>
Auto/Mutual Aid Given	<u>4,488</u>	<u>5,947</u>	<u>7,346</u>	<u>5,614</u>	<u>5,397</u>	<u>5,507</u>	<u>4,192</u>	<u>3,873</u>	<u>4,415</u>	<u>4,604</u>
Total	<u><u>113,025</u></u>	<u><u>123,994</u></u>	<u><u>134,615</u></u>	<u><u>139,483</u></u>	<u><u>142,384</u></u>	<u><u>143,600</u></u>	<u><u>152,786</u></u>	<u><u>152,289</u></u>	<u><u>169,599</u></u>	<u><u>177,483</u></u>

Orange County Fire Authority, Command & Emergency Planning Division

NOTES:

(1) Response statistics are normally reported on a calendar year basis in other reports. These statistics have been reported on the fiscal year basis, July through June.

(2) The City of Garden Grove joined the OCFA effective August 16, 2019. Fiscal Year 2019/20 data is reported only for the portion of the fiscal year during which the city was a member of OCFA. Fiscal Year 2020/21 data includes the first full year of Garden Grove activity.

(3) Effective July 1, 2020, the City of Placentia was no longer a member of the OCFA.

ORANGE COUNTY FIRE AUTHORITY
Capital Equipment by Category
Last Ten Fiscal Years

Category	June 30, 2014		June 30, 2015	
	Historical Cost	Quantity	Historical Cost	Quantity
Air fill station	\$ 53,179	2	\$ 53,179	2
Aboveground storage tank	678,014	8	678,014	8
Audio visual equipment	716,800	18	734,581	20
Boat	31,515	4	31,515	4
Breathing Apparatus	-	-	-	-
Camera, thermal imaging	1,214,725	113	1,167,318	107
Camera, other	11,171	1	33,713	4
Communications equipment	1,458,744	39	1,458,744	39
Computer	82,126	5	90,386	6
Defibrillator	1,526,069	105	1,526,069	105
Exercise equipment	35,622	5	35,622	5
Fleet equipment	172,042	16	189,888	17
Forklift	93,177	3	93,177	3
Generator	504,562	22	504,562	22
GPS equipment (AVL regional interoperability projects)	1,391,000	2	1,391,000	2
Hazmat equipment	432,282	23	479,786	26
Helicopters and improvements:				
Helicopter	28,854,977	4	28,854,977	4
Helicopter, rotor blades	319,149	4	319,149	4
Helicopter, fast fin kits	148,104	2	148,104	2
Helicopter, flight director	-	-	-	-
Helicopter, multi-band radio upgrade	-	-	-	-
Helicopter equipment	780,245	42	942,245	43
Hydraulic tool	401,133	60	468,400	67
Kitchen equipment	33,403	4	33,403	4
Laptop	29,058	5	29,058	5
Manikin	67,452	11	67,452	11
Miscellaneous equipment	660,496	49	702,500	52
Mobile radio project (FY 2003/04 - FY 2004/05)	2,424,594	1	2,424,594	1
Mobile radio	107,671	17	82,659	14
Mobile radio, mobile data computer (MDC)	-	-	-	-
Network equipment	1,321,172	31	1,288,223	29
Office equipment	632,865	6	632,865	6
Portable building	274,656	14	352,872	17
Portable radio	79,452	15	143,605	27
Printer	72,039	6	72,039	6
Projector	10,372	2	10,372	2
Router	37,405	4	37,405	4
Scanner	-	-	5,489	1
Search equipment	196,302	13	210,657	14
Server	997,288	79	1,000,858	69
Software	7,117,506	56	9,176,979	50
Switch	312,760	17	312,760	17
Tablet	-	-	5,455	1
Tent	122,237	12	122,237	12
Trailer	512,761	18	523,455	18
Workstation	1,641,243	25	1,641,243	25
	<u>\$ 55,555,368</u>	<u>863</u>	<u>\$ 58,076,609</u>	<u>875</u>

SOURCE: Orange County Fire Authority, Finance Division, General Accounting Unit

June 30, 2016		June 30, 2017		June 30, 2018	
Historical Cost	Quantity	Historical Cost	Quantity	Historical Cost	Quantity
\$ 53,179	2	\$ 53,179	2	\$ 53,179	2
678,014	8	678,014	8	678,014	8
734,581	20	734,581	20	734,581	20
31,515	4	64,986	6	80,606	7
-	-	-	-	-	-
1,115,772	102	1,107,655	101	1,198,258	111
44,264	5	44,264	5	44,264	5
1,523,812	51	1,702,712	83	1,689,198	81
90,386	6	25,900	4	25,900	4
1,526,069	105	5,312,042	229	3,802,620	121
35,622	5	40,790	6	40,790	6
252,867	24	284,885	27	261,714	28
93,177	3	134,138	4	134,138	4
504,562	22	504,562	22	504,562	22
1,391,000	2	1,391,000	2	1,391,000	2
479,786	26	479,786	26	479,786	26
28,854,977	4	28,854,977	4	28,854,977	4
319,149	4	319,149	4	319,149	4
148,104	2	148,104	2	148,104	2
-	-	-	-	168,804	2
-	-	-	-	-	-
942,245	43	995,953	46	1,003,199	47
490,913	69	535,309	72	1,108,303	148
33,403	4	26,394	3	26,394	3
23,832	4	17,957	3	17,957	3
67,452	11	67,452	11	75,129	12
735,503	55	798,762	59	891,816	67
2,424,594	1	2,424,594	1	2,424,594	1
88,700	16	88,700	16	88,700	16
-	-	196,398	30	196,398	30
1,294,452	30	1,294,452	30	1,294,452	30
632,865	6	632,865	6	642,985	7
352,872	17	352,872	17	352,872	17
138,477	26	138,477	26	138,477	26
72,039	6	68,552	6	68,552	6
10,372	2	10,372	2	5,153	1
72,745	8	72,745	8	72,745	8
5,489	1	5,489	1	5,489	1
236,657	16	258,921	18	258,921	18
1,211,242	72	936,541	57	1,150,118	72
10,502,153	53	10,491,277	52	10,491,277	52
349,909	20	349,909	20	356,521	21
24,882	4	24,882	4	24,882	4
122,237	12	154,551	13	180,849	15
523,455	18	465,143	18	572,659	21
1,641,243	25	1,641,243	25	1,641,243	25
<u>\$ 59,874,567</u>	<u>914</u>	<u>\$ 63,930,534</u>	<u>1,099</u>	<u>\$ 63,699,329</u>	<u>1,110</u>

(Continued on next page)

ORANGE COUNTY FIRE AUTHORITY
Capital Equipment by Category
(Continued)

Category	June 30, 2019		June 30, 2020	
	Historical Cost	Quantity	Historical Cost	Quantity
Air fill station	\$ 53,179	2	\$ 53,179	2
Aboveground storage tank	678,014	8	678,014	8
Audio visual equipment	734,581	20	734,581	20
Boat	80,606	7	80,606	7
Breathing Apparatus	20,394	4	20,394	4
Camera, thermal imaging	1,251,200	117	1,360,096	131
Camera, other	44,264	5	44,264	5
Communications equipment	1,696,094	82	3,919,452	83
Computer	25,900	4	34,261	5
Defibrillator	4,089,086	130	4,334,152	138
Exercise equipment	40,790	6	40,790	6
Fleet equipment	294,849	29	292,914	29
Forklift	134,138	4	134,138	4
Generator	504,562	22	504,562	22
GPS equipment (AVL regional interoperability projects)	1,391,000	2	1,391,000	2
Hazmat equipment	500,242	30	801,854	32
Helicopters and improvements:				
Helicopter	28,854,977	4	28,854,977	4
Helicopter, rotor blades	319,149	4	319,149	4
Helicopter, fast fin kits	213,749	3	213,749	3
Helicopter, flight director	168,804	2	168,804	2
Helicopter, multi-band radio upgrade	183,096	2	366,193	4
Helicopter equipment	1,003,199	47	1,003,199	47
Hydraulic tool	905,931	119	882,673	113
Kitchen equipment	20,395	2	20,395	2
Laptop	17,957	3	12,081	2
Manikin	32,371	5	109,410	13
Miscellaneous equipment	978,892	74	2,580,791	197
Mobile radio project (FY 2003/04 - FY 2004/05)	2,424,594	1	2,424,594	1
Mobile radio	99,592	18	136,527	23
Mobile radio, mobile data computer (MDC)	385,726	60	385,726	60
Network equipment	1,294,452	30	1,294,452	23
Office equipment	685,053	9	685,053	9
Portable building	687,025	20	980,837	28
Portable radio	400,892	71	400,892	71
Printer	77,501	7	66,101	6
Projector	5,153	1	5,153	1
Router	72,745	8	58,132	7
Scanner	5,489	1	5,489	1
Search equipment	258,921	18	258,921	18
Server	944,725	48	870,201	41
Software	10,538,302	56	10,666,466	50
Switch	514,813	58	522,347	59
Tablet	24,882	4	24,882	4
Tent	194,207	16	226,055	18
Trailer	656,551	22	836,564	25
Workstation	1,647,704	26	1,698,204	27
	<u>\$ 65,155,746</u>	<u>1,211</u>	<u>\$ 70,502,274</u>	<u>1,361</u>

June 30, 2021		June 30, 2022		June 30, 2023	
Historical Cost	Quantity	Historical Cost	Quantity	Historical Cost	Quantity
\$ 79,266	4	\$ 79,266	4	\$ 79,266	4
678,014	8	678,014	8	678,014	8
240,142	12	240,142	12	220,674	9
80,606	7	80,606	7	80,606	7
20,394	4	20,394	4	20,394	4
1,360,096	131	1,360,096	131	1,360,096	131
44,264	5	44,264	5	33,093	4
3,919,452	83	3,878,507	82	3,248,381	62
28,490	4	28,490	4	22,622	3
4,334,152	138	4,334,152	138	4,334,152	138
40,790	6	25,407	3	39,060	5
292,914	29	292,914	29	302,355	30
222,642	5	222,642	5	287,192	8
463,592	20	474,569	20	475,241	20
1,391,000	2	1,391,000	2	1,391,000	2
828,743	36	839,070	38	578,164	25
28,854,977	4	28,854,977	4	21,560,759	2
319,149	4	319,149	4	-	-
213,749	3	213,749	3	148,104	2
168,804	2	168,804	2	168,804	2
366,193	4	366,193	4	224,419	2
1,020,261	48	1,042,935	49	873,116	45
849,580	108	911,957	116	953,286	121
20,395	2	20,395	2	20,395	2
12,081	2	5,981	1	5,288	1
109,410	13	109,410	13	109,410	13
2,715,740	210	2,712,871	208	2,870,247	219
2,424,594	1	2,424,594	1	2,424,594	1
136,527	23	379,216	53	319,045	42
512,370	80	652,656	102	1,107,095	172
1,294,452	23	1,294,452	23	1,294,452	10
685,053	9	676,989	8	662,535	8
974,765	27	1,006,388	31	1,076,842	40
907,709	161	925,089	163	904,577	159
82,274	7	82,274	7	66,851	6
5,153	1	5,153	1	5,153	1
58,132	7	58,132	7	46,765	6
5,489	1	5,489	1	5,489	1
302,246	21	333,137	25	294,669	22
887,375	42	887,375	42	708,858	38
10,751,591	45	10,751,591	45	11,096,458	46
574,594	61	574,594	61	552,723	59
24,882	4	24,882	4	24,882	4
226,055	18	215,377	16	215,377	16
1,024,838	30	1,533,274	38	1,922,379	47
1,687,318	28	1,687,318	28	1,668,388	27
<u>\$ 71,240,313</u>	<u>1,483</u>	<u>\$ 72,233,934</u>	<u>1,554</u>	<u>\$ 64,481,270</u>	<u>1,574</u>

ORANGE COUNTY FIRE AUTHORITY
Capital Vehicles by Category
Last Ten Fiscal Years

Category	June 30, 2014		June 30, 2015	
	Historical Cost	Quantity	Historical Cost	Quantity
Air Utility	\$ 820,733	4	\$ 820,733	4
Ambulance	674,739	5	573,194	4
Battalion Chief Vehicle	1,518,914	29	1,518,914	29
Brush Chipper	34,289	2	34,289	2
Crew-Carrying Vehicle	452,373	4	452,373	4
Dump Truck	66,366	1	66,366	1
Fire Command	820,829	4	674,655	3
Fire Dozer	723,403	4	550,978	2
Foam Tender	152,245	1	152,245	1
Fuel Tender	376,164	3	376,164	3
Hazmat Unit	1,077,646	3	1,077,646	3
Heavy Equipment Vehicle	102,396	1	184,392	2
Heavy Rescue Unit	658,107	1	658,107	1
Hose Tender	103,189	1	103,189	1
Lift Truck	71,780	1	71,780	1
Paramedic Van	1,860,604	22	1,860,604	22
Patrol	1,539,901	19	1,539,901	19
Patrol, Compressed Air Foam System (CAFS)	858,456	12	858,456	12
Pickup Truck	2,081,006	53	2,081,006	53
Sedan	44,994	2	44,994	2
Squad	578,998	7	578,998	7
Stakeside	34,289	1	34,289	1
Sport Utility Vehicle (SUV)	2,560,913	94	2,505,905	92
Telesquirt	1,736,407	5	1,736,407	5
Transport Tractor	506,673	5	506,673	5
Truck, 90', 100' and 110' Tractor Drawn Aerials	4,938,110	7	4,938,110	7
Truck, 75' Quint	3,124,257	6	3,124,257	6
Truck, 90' Quint	3,562,035	7	3,062,553	6
Truck, 100' Quint	2,354,146	2	2,354,146	2
Truck, Other	592,188	7	768,076	11
Truck, Compressed Air Foam System (CAFS)	44,058	2	44,058	2
Type 1 Engine	28,363,285	92	28,442,065	90
Type 1 Wildland Urban Interface Engine	3,451,627	8	3,451,627	8
Type 2 Engine	152,610	1	152,610	1
Type 3 Engine	4,653,221	13	4,653,221	13
Utility	145,169	3	145,169	3
Van	623,608	24	451,395	19
Water Tender	753,535	5	753,535	5
	<u>\$ 72,213,263</u>	<u>461</u>	<u>\$ 71,403,080</u>	<u>452</u>

SOURCE: Orange County Fire Authority, Finance Division, General Accounting Unit

NOTE: Beginning in Fiscal Year 2020/21, vehicles categorized as "Loader" and "Road Grader" were combined into a single category called "Heavy Equipment Vehicle." Amounts and quantities shown on this schedule for previous fiscal years have also been updated to reflect this change and may vary from the information originally reported in previous reports.

June 30, 2016		June 30, 2017		June 30, 2018	
Historical Cost	Quantity	Historical Cost	Quantity	Historical Cost	Quantity
\$ 820,733	4	\$ 820,733	4	\$ 820,733	4
573,194	4	573,194	4	573,194	4
2,098,087	42	2,161,593	42	2,224,326	42
103,545	3	84,438	2	84,438	2
452,373	4	452,373	4	447,373	3
66,366	1	66,366	1	66,366	1
674,655	3	674,655	3	674,655	3
550,978	2	550,978	2	550,978	2
152,245	1	152,245	1	152,245	1
376,164	3	376,164	3	376,164	3
1,077,646	3	939,162	2	939,162	2
184,392	2	184,392	2	252,434	3
679,608	1	679,608	1	679,608	1
103,189	1	103,189	1	-	-
71,780	1	71,780	1	71,780	1
1,860,604	22	1,860,604	22	1,566,150	19
1,539,901	19	1,539,901	19	1,791,780	20
858,456	12	858,456	12	858,456	12
2,327,501	63	3,213,233	85	3,275,670	86
-	-	-	-	-	-
578,998	7	496,839	6	1,074,089	9
34,289	1	34,289	1	34,289	1
2,621,995	93	2,602,271	92	2,224,726	79
1,736,407	5	1,736,407	5	1,387,635	4
506,673	5	506,673	5	506,673	5
4,948,930	8	6,641,223	9	9,236,148	11
3,124,257	6	3,124,257	6	3,124,257	6
3,062,553	6	3,062,553	6	3,062,553	6
2,354,146	2	2,354,146	2	2,354,146	2
768,076	11	804,028	11	790,798	11
44,058	2	44,058	2	44,058	2
30,580,415	94	32,151,624	94	32,151,624	94
3,451,627	8	3,451,627	8	3,451,627	8
152,610	1	152,610	1	152,610	1
4,653,221	13	4,653,221	13	4,653,221	13
145,169	3	145,169	3	145,169	3
451,395	19	435,224	18	435,224	18
753,535	5	753,535	5	753,535	5
<u>\$ 74,539,771</u>	<u>480</u>	<u>\$ 78,512,818</u>	<u>498</u>	<u>\$ 80,987,894</u>	<u>487</u>

(Continued on next page)

ORANGE COUNTY FIRE AUTHORITY
Capital Vehicles by Category
(Continued)

Category	June 30, 2019		June 30, 2020	
	Historical Cost	Quantity	Historical Cost	Quantity
Air Utility	\$ 820,733	4	\$ 1,216,732	5
Ambulance	573,194	4	-	-
Battalion Chief Vehicle	2,468,254	46	2,603,667	48
Brush Chipper	84,438	2	160,272	3
Crew-Carrying Vehicle	447,373	3	447,373	3
Dump Truck	66,366	1	66,366	1
Fire Command	674,655	3	674,655	3
Fire Dozer	550,978	2	1,112,241	3
Foam Tender	152,245	1	152,245	1
Fuel Tender	376,164	3	376,164	3
Hazmat Unit	939,162	2	939,162	2
Heavy Equipment Vehicle	252,434	3	418,917	5
Heavy Rescue Unit	679,608	1	679,608	1
Hose Tender	-	-	-	-
Lift Truck	71,780	1	71,780	1
Paramedic Van	1,566,150	19	1,468,553	18
Patrol	1,791,780	20	1,791,780	20
Patrol, Compressed Air Foam System (CAFS)	858,456	12	858,456	12
Pickup Truck	3,726,138	98	5,190,357	130
Sedan	-	-	-	-
Squad	1,465,052	11	1,465,052	11
Stakeside	34,289	1	34,289	1
Sport Utility Vehicle (SUV)	2,186,521	77	1,889,421	59
Telesquirt	1,038,862	3	-	-
Transport Tractor	506,673	5	1,093,171	8
Truck, 90', 100' and 110' Tractor Drawn Aerials	17,609,131	17	18,802,835	18
Truck, 75' Quint	3,124,257	6	2,694,556	5
Truck, 90' Quint	3,062,553	6	3,062,553	6
Truck, 100' Quint	2,354,146	2	2,354,146	2
Truck, Other	790,798	11	1,138,258	13
Truck, Compressed Air Foam System (CAFS)	44,058	2	44,058	2
Type 1 Engine	37,752,647	103	43,198,345	113
Type 1 Wildland Urban Interface Engine	3,451,627	8	3,451,627	8
Type 2 Engine	152,610	1	-	-
Type 3 Engine	4,653,221	13	4,653,221	13
Utility	145,169	3	145,169	3
Van	649,798	26	557,619	22
Water Tender	753,535	5	753,535	5
	<u>\$ 95,874,855</u>	<u>525</u>	<u>\$ 103,566,183</u>	<u>548</u>

June 30, 2021		June 30, 2022		June 30, 2023	
Historical Cost	Quantity	Historical Cost	Quantity	Historical Cost	Quantity
\$ 1,216,732	5	\$ 1,823,844	6	\$ 1,823,844	6
-	-	-	-	-	-
2,566,931	47	2,566,931	47	2,566,931	47
160,272	3	160,272	3	160,272	3
1,668,656	7	1,668,656	7	1,668,656	7
66,366	1	66,366	1	66,366	1
674,655	3	674,655	3	674,655	3
1,112,241	3	1,112,241	3	1,112,241	3
152,245	1	684,408	2	532,163	1
376,164	3	376,164	3	376,164	3
939,162	2	939,162	2	939,162	2
598,591	6	598,591	6	784,424	7
739,608	2	739,608	2	739,608	2
-	-	-	-	-	-
71,780	1	71,780	1	71,780	1
1,302,899	16	1,302,899	16	1,302,899	16
1,631,773	18	1,631,773	18	1,631,773	18
858,456	12	858,456	12	858,456	12
5,593,216	143	5,593,216	143	5,925,900	145
45,800	2	45,800	2	45,800	2
1,465,052	11	1,465,052	11	1,465,052	11
131,961	2	131,961	2	131,961	2
1,819,287	58	1,852,332	57	1,948,966	59
-	-	-	-	-	-
1,093,171	8	1,093,171	8	1,093,171	8
18,734,735	17	18,734,735	17	18,734,735	17
2,694,556	5	2,694,556	5	2,694,556	5
3,062,553	6	3,062,553	6	3,062,553	6
2,354,146	2	3,634,249	3	3,634,249	3
1,072,345	12	1,072,345	12	1,950,598	15
44,058	2	44,058	2	44,058	2
42,220,704	108	47,750,808	116	51,210,148	121
3,451,627	8	3,451,627	8	3,451,627	8
-	-	-	-	-	-
6,238,675	16	6,238,675	16	6,238,675	16
944,947	10	944,947	10	944,947	10
785,038	27	901,145	28	901,145	28
1,639,178	7	1,639,178	7	1,639,178	7
<u>\$ 107,527,580</u>	<u>574</u>	<u>\$ 115,626,214</u>	<u>585</u>	<u>\$ 120,426,713</u>	<u>597</u>

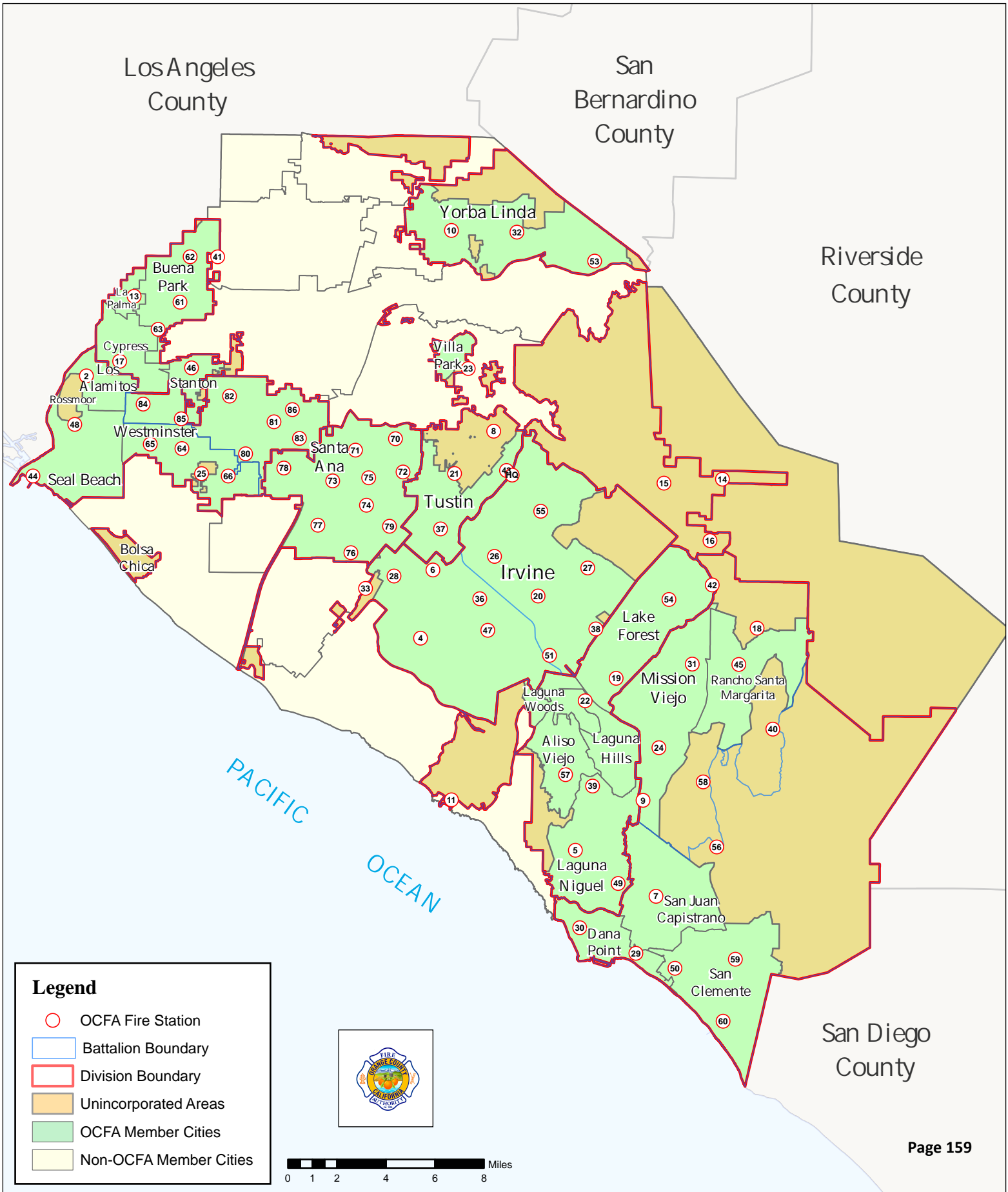
Orange County Fire Authority



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ORANGE COUNTY FIRE AUTHORITY

Division and Battalion Boundaries and Station Locations
As of June 30, 2023



ORANGE COUNTY FIRE AUTHORITY
List of Stations by Member Agency
As of June 30, 2023



City of Aliso Viejo
#57, 57 Journey, 92656



City of Buena Park
#61, 7440 La Palma Ave. 90620
#62, 7780 Artesia Blvd. 90621
#63, 9120 Holder St. 90620



City of Cypress
#17, 4991 Cerritos Ave. 90630



City of Dana Point
#29, 26111 Victoria Blvd. 92624
#30, 23831 Stonehill Dr. 92629



City of Garden Grove
#80, 14162 Forsyth Ln. 92844
#81, 112611 Acacia Pkwy. 92840
#82, 11805 Gilbert St. 92841
#83, 12132 Trask Ave. 92843
#84, 12191 Valley View St. 92845
#85, 12751 Western Ave. 92841
#86, 12232 West St. 92840



City of Irvine
#4, 2 California Ave. 92612
#6, 3180 Barranca Pkwy. 92606
#20, 7050 Corsair, 92618
#26, 4691 Walnut Ave. 92604
#27, 12400 Portola Springs 92618
#28, 17862 Gillette Ave. 92614
#36, 301 E. Yale Loop 92604
#38, 26 Parker 92618
#47, 47 Fossil 92603
#51, 18 Cushing 92618
#55, 4955 Portola Pkwy. 92620



City of La Palma
#13, 7822 Walker St. 90623



Cities of Laguna Hills and Laguna Woods
#22, 24001 Paseo de Valencia, Laguna Hills 92653



City of Laguna Niguel
#5, 23600 Pacific Island Dr. 92677
#39, 24241 Avila Rd. 92677
#49, 31461 Golden Lantern St. 92677



City of Lake Forest
#19, 23022 El Toro Rd. 92630
#42, 19150 Ridgeline Rd., 92679
#54, 19811 Pauling Ave., 92610



City of Los Alamitos
#2, 3642 Green Ave. 90720



City of Mission Viejo
#9, #9 Shops at Mission Viejo 92691
#24, 25862 Marguerite Pkwy. 92692
#31, 22426 Olympiad Rd. 92692



City of Rancho Santa Margarita
#45, 30131 Aventura 92688



City of San Clemente
#50, 670 Camino de Los Mares 92672
#59, 48 Avenida La Pata 92673
#60, 100 Avenida Victoria 92672

**ORANGE COUNTY FIRE AUTHORITY
List of Stations by Member Agency
As of June 30, 2023, (Continued)**



City of San Juan Capistrano
#7, 31865 Del Obispo 92675



City of Santa Ana
#70, 2301 Old Grand 92701
#71, 1029 West 17th St. 92706
#72, 1688 East 4th St. 92701
#73, 419 Franklin 92703
#74, 1427 South Broadway 92707
#75, 120 West Walnut 92701
#76, 950 West MacArthur 92707
#77, 2317 South Greenville 92704
#78, 501 North Newhope 92703
#79, 1320 East Warner 92705



City of Seal Beach
#44, 718 Central Ave. 90740
#48, 3131 N. Gate Rd. 90740



City of Stanton
#46, 7871 Pacific St. 90680



City of Tustin
#37, 15011 Kensington Park Dr. 92780
#43, 11490 Pioneer Way 92782



City of Villa Park
#23, 5020 Santiago Canyon Rd. 92869



City of Westminster
#64, 7351 Westminster Blvd. 92683
#65, 6061 Hefley St. 92683
#66, 15061 Moran St. 92683



City of Yorba Linda
#10, 18422 E. Lemon Dr. 92886
#32, 20990 Yorba Linda Blvd. 92887
#53, 25415 La Palma Ave. 92887



County of Orange, Unincorporated
#8, 10631 Skyline Dr.,
Santa Ana 92705

#11, 259 Emerald Bay,
Laguna Beach 92651

#14, P.O. Box 12,
Silverado 92676

#15, 27172 Silverado Canyon Rd.,
Silverado 92676

#16, 28891 Modjeska Canyon Rd.,
Silverado 92676

#18, 30942 Trabuco Canyon Rd.,
Trabuco Canyon 92679

#21, 1241 Irvine Blvd.,
Tustin 92780

#25, 8171 Bolsa Ave.,
Midway City 92655

#40, 25082 Vista del Verde,
Coto de Caza 92679

#56, 56 Sendero Way,
Rancho Mission Viejo 92694

#58, 58 Station Way,
Ladera Ranch 92694

Specialty Stations



Airport Rescue & Firefighting

#33, 374 Paularino,
Costa Mesa 92626



Helicopter Operations

#41, 3900 W. Artesia Ave.,
Fullerton 92633

ORANGE COUNTY FIRE AUTHORITY
Description of the Organization, Programs and Service Delivery
As of June 30, 2023

Orange County Fire Authority (OCFA) is managed by an Executive Management team consisting of an appointed Fire Chief, two Deputy Chiefs, seven Assistant Chiefs, and one Director. Assistant Chiefs oversee service activities that are organized into seven primary departments – Field Operations North, Field Operations South, Emergency Medical Services (EMS) and Training, Business Services, Community Risk Reduction, Human Resources, and Logistics – which are further organized into divisions, battalions, sections, units, and/or programs to effectively carry out the mission of the OCFA. OCFA’s overall structure is organized and managed as follows:

OCFA	Fire Chief
Bureau.....	Deputy Chief
Department	Assistant Chief
Division	Assistant Chief, Director, Division Chief, or Division Manager
Battalion / Section / Unit / Program	Battalion Chief, Section Manager, or Unit Manager

EXECUTIVE MANAGEMENT

Executive Management provides direction to areas of the organization and ensures that the types and levels of services provided are consistent with Board policy and the adopted budget. OCFA contracts with the firm of Woodruff & Smart located in Costa Mesa, California for its legal services. General Counsel reports directly to the Board of Directors.

CORPORATE COMMUNICATIONS

Corporate Communications, which is overseen by a Director reporting directly to the Fire Chief, facilitates public information and media relations, and provides support to Executive Management staff on special projects designed to keep the public and other agencies informed about OCFA.

- The **Public Information Officer (PIO)** serves as the spokesperson for OCFA during major incidents and ensures that the public is kept informed through the release of accurate and timely information, news releases, and board advisories.
- **Multimedia** is responsible for meeting all OCFA audio, video, and photographic needs.
- **Community Education** facilitates public safety education and awareness through large-scale educational campaigns and community outreach events.

EMERGENCY OPERATIONS BUREAU

COMMAND & EMERGENCY PLANNING DIVISION

The **Command & Emergency Planning Division**, which is overseen by a Division Chief reporting directly to the Deputy Chief of the Emergency Operations Bureau, provides the following services:

- The **Emergency Command Center (ECC)** serves as a secondary 9-1-1 Public Safety Answering Point (PSAP) and dispatch center for fire and medical emergencies by answering emergency calls, identifying the nature and location of the emergency, and dispatching resources. The ECC also serves as the Operational Area Coordinator for fire and rescue mutual aid for all Orange County fire service agencies.
- **Emergency Planning and Coordination (EPAC)** is primarily responsible for emergency management planning, serving as the OCFA’s representative to the Operational Area Emergency Operations Center (Loma Ridge) and the Operational Area Fire Mutual Aid Representative to the California Office of Emergency Services Region I Office.

FIELD OPERATIONS DEPARTMENTS – NORTH AND SOUTH

The **Field Operations Departments (North and South)** provide command and control direction regarding daily operations and all fire suppression activities, as well as specialized programs for safety personnel. There are seven operational field divisions, each under the command of a Division Chief. Divisions are divided into field battalions, which are under the command of Battalion Chiefs. Within these field battalions are 76 fire stations that provide for regional emergency response to structure fires, medical aids, rescues, hazardous materials incidents, and wildland fires. Activities and additional responsibilities of each department include the following:

FIELD OPERATIONS DEPARTMENT NORTH

- **Division 1 – Battalion 1** primarily serves the cities of Los Alamitos, Seal Beach, and Westminster, as well as the unincorporated communities of Midway City and Rossmoor. **Battalion 11** primarily serves the city of Garden Grove. Division 1 also assists with the provision of emergency services to Seal Beach Naval Weapons Station and the Joint Forces Training Base in Los Alamitos.
- **Division 4 – Battalion 2** primarily serves the city of Yorba Linda, as well as the unincorporated communities of Carbon Canyon, Chino Hills State Park, and Tonner Canyon. **Battalion 3** primarily serves the cities Tustin and Villa Park, as well as the unincorporated communities of Cowan Heights, El Modena, Lemon Heights, Orange Park Acres, Modjeska Canyon, Santiago Canyon, and Silverado Canyon. **Community Volunteer Services (CVS)** coordinates the Reserve Firefighters (RFF) program, the OCFA Chaplain Program, and the Fire Cadet Program.
- **Division 6 – Battalion 9** primarily serves the city of Santa Ana.
- **Division 7 – Battalion 8** primarily serves the cities of Buena Park, Cypress, La Palma, and Stanton.
- The **Hazardous Materials Program** provides administration, oversight, and training for the Hazardous Materials Response Team (HMRT) and the Fire and Law Enforcement Joint Hazard Assessment Team (JHAT).
- **Investigations** conducts fire investigations and evaluations and initiates early intervention strategies. Other responsibilities include administration of the Fire F.R.I.E.N.D.S. diversion program for juvenile-related fires; OCFIRS quality assurance; state and national reporting; and oversight of the Orange County Intelligence and Assessment Center (OCIAC).

FIELD OPERATIONS DEPARTMENT SOUTH

- **Division 2 – Battalion 5 and Battalion 10** primarily serve the city of Irvine, as well as the unincorporated community of Santa Ana Heights. Division 2 provides emergency services to the University of California, Irvine (UCI), John Wayne Airport (JWA), and the Orange County Great Park. The division also provides oversight for Airport Rescue Fire Fighting (ARFF) services. The division is also responsible for coordinating all grants received from the Office of Homeland Security.
- **Division 3 – Battalion 6** primarily serves the cities of Dana Point, San Clemente, and San Juan Capistrano, as well as the unincorporated community of Rancho Mission Viejo and areas along Ortega Highway in southern Orange County. **Battalion 7** primarily serves the cities of Mission Viejo and Rancho Santa Margarita, as well as the unincorporated communities of Coto de Caza, Ladera Ranch, Las Flores, and Trabuco Canyon. Division 3 provides oversight for the OCFA Apparatus Committee.
- **Division 5 – Battalion 4** primarily serves the cities of Aliso Viejo, Laguna Hills, Laguna Niguel, Laguna Woods, and Lake Forest, as well as the unincorporated community of Emerald Bay. Division 5 oversees the Staffing Program, which ensures 24/7 staffing levels at all stations; the Staffing Committee; the employee transfer process within the Operations Department; and the OCFA Equipment Committee.
- **Air Operations** is responsible for coordination and maintenance of OCFA's firefighting helicopters, which are used for emergency responses for wildland and wildland urban interface fires and special rescues such as swift and still water rescues, medical rescue support, and disaster mitigation.
- The **Urban Search & Rescue (US&R) Program** provides specialized emergency response capabilities and equipment for the federal US&R task force, the Swift Water Rescue program, and the Mass Casualty Unit.

- **Wildland Operations** oversees the coordination of firefighting hand crews and heavy fire equipment.

EMS AND TRAINING DEPARTMENT

The **EMS and Training Department** provides emergency medical and specialized training programs for safety personnel. Specific activities and responsibilities of the department include the following:

- The **Emergency Medical Services (EMS) Division** manages the delivery of medical services by OCFA's emergency medical technicians (EMT) and paramedics. EMS serves as a liaison to county and state regulatory agencies, hospitals, ambulance providers, and other EMS groups. EMS also oversees the Wellness and Fitness (WEFIT) program, which includes medical and fitness evaluations, behavioral health, cancer awareness and prevention, peer fitness trainers, employee health and fitness education, and physical training for firefighter academy recruits.
- The **Operations Training and Promotions Division** facilitates and coordinates the Fire Apparatus Engineer, Fire Captain, and Fire Battalion Chief academies and assessment centers. The division works collaboratively with the Operations Training & Safety Division on rank-specific, operations-based training. Lastly, the division coordinates with Santa Ana College and the California Joint Apprenticeship Committee (CFFJAC) on various training activities and programs.
- The **Operations Training & Safety Division (Training)** delivers and facilitates all operations personnel training activities and serves in a lead capacity on issues of employee and incident safety. Training Officers double as incident safety officers.

ADMINISTRATION & SUPPORT BUREAU

BUSINESS SERVICES DEPARTMENT

The **Business Services Department** provides the following services:

- The **Clerk Division** administers democratic processes, such as access to OCFA records and all legislative actions ensuring transparency to the public.
- The **Finance Division** oversees the processing, accounting, reporting, and auditing of all OCFA financial records. It is responsible for developing policies and procedures designed to protect and safeguard OCFA's assets. Specific functions include accounts receivable, general accounting, cost accounting, accounts payable, payroll, and timekeeping.
- The **Legislative Division** identifies and tracks local, state, and federal legislation that could impact OCFA; submits legislative analysis to the Board of Directors; sends letters on behalf of the Board of Directors when a position is taken on an item of legislation; and manages the grant application process for all OCFA grants.
- The **Purchasing Division** administers the centralized procurement of all supplies, services, equipment, and construction services through competitive solicitations. The Purchasing Division is also responsible for administering the procurement card program and surplus disposition.
- The **Treasury Division** provides cash management, budgetary, and financial support services. Treasury services include monitoring cash balances; making investments in compliance with OCFA's Investment Policy; issuing and administering long and short-term debt; and providing oversight of the deferred compensation, pension, and retiree medical programs. Financial planning services include preparation of the budget; annual reviews of OCFA's fiscal health; financial forecasting; and special financial studies.

COMMUNITY RISK REDUCTION DEPARTMENT

The **Community Risk Reduction Department** contributes to community safety and prosperity through the systematic mitigation of risk. Specific programs and services include the following:

- The **Planning and Development Division** interacts with developers, architects, and engineers to meet the fire protection requirements for buildings and developments. This division reviews all architectural development plans and proposals submitted within OCFA's jurisdiction, including tract and parcel maps, permits for conditional use, site development, coastal development, and other items related to the developmental process.
- The **Prevention Field Services Division** assists stakeholders in maintaining and enhancing safe communities by conducting fire safety inspections; enforcing applicable fire codes and ordinances; and assuring that public safety issues are researched and addressed as appropriate.
- **Wildland Pre-Fire Management** takes a proactive approach to wildland fire prevention through the systematic evaluation of risk, fuels mitigation, road maintenance, vegetation management, and home hardening education through ongoing collaboration with partner organizations, landowners, and communities.

HUMAN RESOURCES DEPARTMENT

The **Human Resources Department** provides the following programs and services:

- The **Benefits Division** administers employee benefit programs, including health, accidental death and dismemberment, dental, vision, life, disability, and optional benefit plans; has oversight for human resources information systems; and oversees classification and compensation studies.
- The **Employee Relations Division** oversees performance management; meet and confer, appeal, and grievance processes; and Memorandum of Understanding (MOU) administration. In addition, Employee Relations includes the OCFA accommodation program, which involves scheduling and facilitating interactive process meetings and the identification of reasonable accommodations.
- The **Recruitment Division** oversees recruitment and selection processes.
- The **Risk Management Division** administers OCFA's general liability insurance, self-insured workers' compensation, and environmental health and safety programs.

LOGISTICS DEPARTMENT

The **Logistics Department** provides essential support to all departments of the OCFA in the following areas:

- The **Fleet Services Division** ensures the effective and timely repair, servicing, and maintenance of all vehicles, apparatus, and equipment. Responsibilities include coordinating new vehicle specifications and purchases, maintenance schedules, and replacement prioritization.
- The **Information Technology Division** is responsible for development, operation, maintenance, and security of OCFA's computers, network, and overall technical infrastructure; the development and support of information systems applications and databases; maintenance of centralized enterprise Geographic Information System (GIS) and mapping capabilities; and the acquisition and maintenance of emergency communications equipment.
- The **Property Management Division** builds, maintains, and repairs all OCFA real property and durable infrastructure. Responsibilities include construction of new fire stations and the maintenance and operations of all fire stations and facilities, including the air operations hangar, the Urban Search and Rescue and Training facility, and the Regional Fire Operations and Training Center (RFOTC).
- The **Service Center Division** provides OCFA's organization-wide logistical support. Responsibilities include shipping, receiving, and warehousing services for a wide variety of organizational supplies; mail processing and delivery; testing and repair of firefighting equipment; providing and maintaining personal protective equipment (PPE) for firefighters; outfitting new fire apparatus with equipment; and providing specialized emergency support on incidents.

Orange County Fire Authority



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ACFR 2023

FISCAL YEAR ENDED JUNE 30



ORANGE COUNTY FIRE AUTHORITY

P.O. Box 57115, Irvine, CA 92619-7115 • 1 Fire Authority Rd, Irvine, CA 92602

(714) 573-6000

www.ocfa.org



INDEPENDENT AUDITOR'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH *GOVERNMENT AUDITING STANDARDS*

To the Board of Directors
Orange County Fire Authority
Irvine, California

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the governmental activities, the discretely presented component unit, each major fund, the aggregate remaining fund information, and the budgetary statement for the general fund of the Orange County Fire Authority, California (the "Authority"), as of and for the year ended June 30, 2023, and the related notes to the financial statements, which collectively comprise the Authority's basic financial statements, and have issued our report thereon dated October 9, 2023.

Report on Internal Control over Financial Reporting

In planning and performing our audit of the financial statements, we considered the Authority's internal control over financial reporting (internal control) as a basis for designing audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Authority's internal control. Accordingly, we do not express an opinion on the effectiveness of the Authority's internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements, on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected, on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or, significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses or significant deficiencies may exist that were not identified.

Report on Compliance and Other Matters

As part of obtaining reasonable assurance about whether the Authority's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the financial statements. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.



To the Board of Directors
Orange County Fire Authority
Irvine, California

Purpose of This Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Authority's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Authority's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Lance, Soll & Lughard, LLP

Brea, California
October 9, 2023



ORANGE COUNTY FIRE AUTHORITY
IRVINE, CALIFORNIA
JUNE 30, 2023

SINGLE AUDIT REPORT

Focused
on YOU



ORANGE COUNTY FIRE AUTHORITY
Irvine, California

Single Audit Report
June 30, 2023

ORANGE COUNTY FIRE AUTHORITY
Irvine, California

Single Audit Report
June 30, 2023

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INDEPENDENT AUDITOR'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH *GOVERNMENT AUDITING STANDARDS*

To the Board of Directors
Orange County Fire Authority
Irvine, California

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the governmental activities, the discretely presented component unit, each major fund, the aggregate remaining fund information, and the budgetary statement for the general fund of the Orange County Fire Authority, California (the "Authority"), as of and for the year ended June 30, 2023, and the related notes to the financial statements, which collectively comprise the Authority's basic financial statements, and have issued our report thereon dated October 9, 2023.

Report on Internal Control over Financial Reporting

In planning and performing our audit of the financial statements, we considered the Authority's internal control over financial reporting (internal control) as a basis for designing audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Authority's internal control. Accordingly, we do not express an opinion on the effectiveness of the Authority's internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements, on a timely basis. *A material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected, on a timely basis. *A significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or, significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses or significant deficiencies may exist that were not identified.

Report on Compliance and Other Matters

As part of obtaining reasonable assurance about whether the Authority's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the financial statements. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.



To the Board of Directors
Orange County Fire Authority
Irvine, California

Purpose of This Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Authority's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Authority's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Lance, Solt & Lughard, LLP

Brea, California
October 9, 2023



INDEPENDENT AUDITOR'S REPORT ON COMPLIANCE FOR EACH MAJOR PROGRAM AND ON INTERNAL CONTROL OVER COMPLIANCE AND REPORT ON SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS REQUIRED BY THE UNIFORM GUIDANCE

To the Board of Directors
Orange County Fire Authority
Irvine, California

Report on Compliance for Each Major Federal Program

Opinion on Each Major Federal Program

We have audited Orange County Fire Authority (the "Authority")'s compliance with the types of compliance requirements identified as subject to audit in the OMB *Compliance Supplement* that could have a direct and material effect on each of the Authority's major federal programs for the year ended June 30, 2023. The Authority's major federal programs are identified in the summary of auditor's results section of the accompanying schedule of findings and questioned costs.

In our opinion, the Authority complied, in all material respects, with the types of compliance requirements referred to above that could have a direct and material effect on each of its major federal programs for the year ended June 30, 2023.

Basis for Opinion on Each Major Federal Program

We conducted our audit of compliance in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and the audit requirements of *Title 2 U.S. Code of Federal Regulations Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance). Our responsibilities under those standards and the Uniform Guidance are further described in the Auditor's Responsibilities for the Audit of Compliance section of our report.

We are required to be independent of the Authority and to meet our other ethical responsibilities, in accordance with relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion on compliance for each major federal program. Our audit does not provide a legal determination of the Authority's compliance with the compliance requirements referred to above.

Responsibilities of Management for Compliance

Management is responsible for compliance with the requirements referred to above and for the design, implementation, and maintenance of effective internal control over compliance with the requirements of laws, statutes, regulations, rules, and provisions of contracts or grant agreements applicable to the Authority's federal programs.



To the Board of Directors
Orange County Fire Authority
Irvine, California

Auditor's Responsibilities for the Audit of Compliance

Our objectives are to obtain reasonable assurance about whether material noncompliance with the compliance requirements referred to above occurred, whether due to fraud or error, and express an opinion on the Authority's compliance based on our audit. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with generally accepted auditing standards, *Government Auditing Standards*, and the Uniform Guidance will always detect material noncompliance when it exists. The risk of not detecting material noncompliance resulting from fraud is higher than for that resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Noncompliance with the compliance requirements referred to above is considered material if there is a substantial likelihood that, individually or in the aggregate, it would influence the judgment made by a reasonable user of the report on compliance about the Authority's compliance with the requirements of each major federal program as a whole.

In performing an audit in accordance with generally accepted auditing standards, *Government Auditing Standards*, and the Uniform Guidance, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material noncompliance, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the Authority's compliance with the compliance requirements referred to above and performing such other procedures as we considered necessary in the circumstances.
- Obtain an understanding of the Authority's internal control over compliance relevant to the audit in order to design audit procedures that are appropriate in the circumstances and to test and report on internal control over compliance in accordance with the Uniform Guidance, but not for the purpose of expressing an opinion on the effectiveness of the Authority's internal control over compliance. Accordingly, no such opinion is expressed.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and any significant deficiencies and material weaknesses in internal control over compliance that we identified during the audit.

Report on Internal Control over Compliance

A deficiency in internal control over compliance exists when the design or operation of a control over compliance does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, noncompliance with a type of compliance requirement of a federal program on a timely basis. *A material weakness in internal control over compliance* is a deficiency, or a combination of deficiencies, in internal control over compliance, such that there is a reasonable possibility that material noncompliance with a type of compliance requirement of a federal program will not be prevented, or detected and corrected, on a timely basis. *A significant deficiency in internal control over compliance* is a deficiency, or a combination of deficiencies, in internal control over compliance with a type of compliance requirement of a federal program that is less severe than a material weakness in internal control over compliance, yet important enough to merit attention by those charged with governance.

Our consideration of internal control over compliance was for the limited purpose described in the Auditor's Responsibilities for the Audit of Compliance section above and was not designed to identify all deficiencies in internal control over compliance that might be material weaknesses or significant deficiencies in internal control over compliance. Given these limitations, during our audit we did not identify any deficiencies in internal control over compliance that we consider to be material weaknesses, as defined above. However, material weaknesses or significant deficiencies in internal control over compliance may exist that were not identified.



To the Board of Directors
Orange County Fire Authority
Irvine, California

Our audit was not designed for the purpose of expressing an opinion on the effectiveness of internal control over compliance. Accordingly, no such opinion is expressed.

The purpose of this report on internal control over compliance is solely to describe the scope of our testing of internal control over compliance and the results of that testing based on the requirements of the Uniform Guidance. Accordingly, this report is not suitable for any other purpose.

Report on Schedule of Expenditures of Federal Awards Required by the Uniform Guidance

We have audited the financial statements of the governmental activities, the discretely presented component unit, each major fund, the aggregate remaining fund information of the Authority, and the budgetary statement for the general fund, as of and for the year ended June 30, 2023, and the related notes to the financial statements, which collectively comprise the Authority's basic financial statements. We issued our report thereon dated October 9, 2023, which contained unmodified opinions on those financial statements. Our audit was performed for the purpose of forming opinions on the financial statements that collectively comprise the basic financial statements. The accompanying schedule of expenditures of federal awards is presented for purposes of additional analysis as required by the Uniform Guidance and is not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the schedule of expenditures of federal awards is fairly stated in all material respects in relation to the basic financial statements as a whole.

A handwritten signature in black ink that reads "Lance, Soll & Lughard, LLP". The signature is written in a cursive, flowing style.

Brea, California
October 9, 2023

ORANGE COUNTY FIRE AUTHORITY
Schedule of Expenditures of Federal Awards
For the Fiscal Year Ended June 30, 2023

Federal Grantor / Pass-through Grantor / Program Title	Federal Assistance		Unique Entity ID	Expenditures
	Listing Number	Program / Project Identification Number		
<u>U.S. Department of Homeland Security:</u>				
Direct assistance via Federal Emergency Management Agency:				
National Urban Search and Rescue (US&R) Response System:				
2019 Cooperative Agreement	97.025	EMW-2019-CA-00064	N/A	\$ 259,805
2020 Cooperative Agreement	97.025	EMW-2020-CA-00025	N/A	64,601
2021 Cooperative Agreement	97.025	EMW-2021-CA-00042	N/A	558,107
2022 Cooperative Agreement	97.025	EMW-2022-CA-00058	N/A	748,927
Subtotal - Assistance Listing Number 97.025 *				<u>1,631,440</u>
2018 Assistance to Firefighters Grant (AFG) - Fire Ground Survival Training	97.044	EMW-2018-FO-04863	N/A	163,384
2020 Assistance to Firefighters Grant (AFG) - Fire Education Trailer	97.044	EMW-2020-FP-00433	N/A	152,892
Subtotal - Assistance Listing Number 97.044				<u>316,276</u>
Homeland Security Grant Program:				
Passed through the Orange County Sheriff's Department:				
2021 Orange County Intelligence Assessment Center	97.067	DHS 2021-SS-00081	H7HSMWXHBTJ7	180,000
Total U.S. Department of Homeland Security				<u>2,127,716</u>
<u>U.S. Department of Treasury:</u>				
County of Orange Pass-Through Programs:				
Passed through the County of Orange Executive Office				
CSLFRF -				
COVID-19 - Public Safety and Emergency Equipmer	21.027	SLRFP1607	Z27AVTCCKHU3	3,546
CSLFRF -				
COVID-19 - CERT Program	21.027	SLRFP1607	Z27AVTCCKHU3	2,607
Subtotal - Assistance Listing Number 21.027				<u>6,153</u>
Total U.S. Department of Treasury				<u>6,153</u>
Total Federal Expenditures				<u>\$ 2,133,869</u>

* Major Program

Note a: Refer to Note 1 to the Schedule of Expenditures of Federal Awards for a description of significant accounting policies

Note b: There were no federal awards expended in the form of noncash assistance and insurance in effect during the year.

Note c: Total amount provided to subrecipients during the year was \$0.

ORANGE COUNTY FIRE AUTHORITY
Notes to the Schedule of Expenditures of Federal Awards
For the Year Ended June 30, 2023

NOTE 1: SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES APPLICABLE TO THE SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

A. Scope of Presentation

The accompanying schedule presents only the expenditures incurred by the Orange County Fire Authority (the Authority), that are reimbursable under federal programs of federal financial assistance. For the purposes of this schedule, federal awards include both federal financial assistance received directly from a federal agency, as well as federal funds received indirectly by the City from a non-federal agency or other organization. Only the portion of program expenditures reimbursable with such federal funds is reported in the accompanying schedule. Program expenditures in excess of the maximum federal reimbursement authorized or the portion of the program expenditures that were funded with state, local or other non-federal funds are excluded from the accompanying schedule.

B. Basis of Accounting

The expenditures included in the accompanying schedule were reported on the modified accrual basis of accounting. Under the modified accrual basis of accounting, expenditures are incurred when the City becomes obligated for payment as a result of the receipt of the related goods and services. Expenditures reported included any property or equipment acquisitions incurred under the federal program. The Authority has elected not to use the 10-percent de minimis indirect cost rate allowed under the Uniform Guidance.

ORANGE COUNTY FIRE AUTHORITY
Schedule of Findings and Questioned Costs
For the Fiscal Year Ended June 30, 2023

SECTION I - SUMMARY OF AUDITORS' RESULTS

Financial Statements

Type of auditors' report issued: Unmodified Opinion

Internal control over financial reporting:

- Material weaknesses identified? yes no
- Significant deficiencies identified? yes none reported

Noncompliance material to financial statements noted? yes no

Federal Awards

Internal control over major programs:

- Material weaknesses identified? yes no
- Significant deficiencies identified? yes none reported

Type of auditors' report issued on compliance for major programs: Unmodified Opinion

Any audit findings disclosed that are required to be reported in accordance with Title 2 U.S. Code of Federal Regulations (CFR) Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance)? yes no

Identification of major programs:

<u>Assistance Listing Number(s)</u>	<u>Name of Federal Program or Cluster</u>
97.025	National Urban Search & Resue Response System (US&R)

Dollar threshold used to distinguish between type A and type B program \$750,000

Auditee qualified as low-risk auditee? yes no

**ORANGE COUNTY FIRE AUTHORITY
Schedule of Findings and Questioned Costs
For the Fiscal Year Ended June 30, 2023**

SECTION II - FINANCIAL STATEMENT FINDINGS

No matters were reported.

SECTION III - FEDERAL AWARD FINDINGS AND QUESTIONED COSTS

No matters were reported.



ORANGE COUNTY FIRE AUTHORITY

P. O. Box 57115, Irvine, CA 92619-7115 • 1 Fire Authority Road, Irvine, CA 92602

Brian Fennessy, Fire Chief

(714) 573-6000

www.ocfa.org

Summary Schedule of Prior Year Findings and Questioned Costs For the Fiscal Year Ended June 30, 2022

No matters were reported.

Serving the Cities of: Aliso Viejo • Buena Park • Cypress • Dana Point • Garden Grove • Irvine • Laguna Hills • Laguna Niguel • Laguna Woods • Lake Forest • La Palma • Los Alamitos • Mission Viejo • Rancho Santa Margarita • San Clemente • San Juan Capistrano • Santa Ana • Seal Beach • Stanton • Tustin • Villa Park • Westminster • Yorba Linda and Unincorporated Areas of Orange County

RESIDENTIAL SPRINKLERS AND SMOKE ALARMS SAVE LIVES



October 9, 2023

To the Board of Directors
Orange County Fire Authority
Irvine, California

We have audited the financial statements of the governmental activities, the discretely presented component unit, each major fund, the aggregate remaining fund information, and the budgetary comparison statement for the general fund of the Orange County Fire Authority (the "Authority") for the year ended June 30, 2023. Professional standards require that we provide you with information about our responsibilities under generally accepted auditing standards and, if applicable, *Government Auditing Standards* and the Uniform Guidance, as well as certain information related to the planned scope and timing of our audit. We have communicated such information in our letter to you dated March 8, 2023. Professional standards also require that we communicate to you the following information related to our audit.

Significant Audit Matters

Qualitative Aspects of Accounting Practices

Management is responsible for the selection and use of appropriate accounting policies. The significant accounting policies used by the Authority are described in Note 1 to the financial statements. As described in Note 3 to the financial statements, the Authority changed accounting policies related to subscription-based information technology arrangements, and by adopting Statement of Governmental Accounting Standards (GASB Statement) No. 96, in fiscal year 2022-2023. Accordingly, there was no effect from the accounting change as of the beginning of the year is reported in the financial statements. We noted no transactions entered into by the Authority during the year for which there is a lack of authoritative guidance or consensus. All significant transactions have been recognized in the financial statements in the proper period.

Accounting estimates are an integral part of the financial statements prepared by management and are based on management's knowledge and experience about past and current events and assumptions about future events. Certain accounting estimates are particularly sensitive because of their significance to the financial statements and because of the possibility that future events affecting them may differ significantly from those expected. The most sensitive estimates affecting the Authority's financial statements were:

Management's estimates of the net pension liability, net other postemployment benefits liability, and claims and judgments liability are based on actuarial valuation estimates. We evaluated the methods, assumptions, and data used to develop the actuarial valuation estimates in determining that they are reasonable in relation to the financial statements taken as a whole.

The financial statement disclosures are neutral, consistent, and clear.

Difficulties Encountered in Performing the Audit

We encountered no significant difficulties in dealing with management in performing and completing our audit.



To the Board of Directors
Orange County Fire Authority
Irvine, California

Corrected and Uncorrected Misstatements

Professional standards require us to accumulate all known and likely misstatements identified during the audit, other than those that are clearly trivial, and communicate them to the appropriate level of management. The attached schedule summarizes uncorrected misstatements of the financial statements. Management has determined that their effects are immaterial, both individually and in the aggregate, to the financial statements taken as a whole. The uncorrected misstatements or the matters underlying them could potentially cause future period financial statements to be materially misstated, even though, in our judgment, such uncorrected misstatements are immaterial to the financial statements under audit. In addition, none of the misstatements detected as a result of audit procedures and corrected by management were material, either individually or in the aggregate, to each opinion unit's financial statements taken as a whole.

Disagreements with Management

For purposes of this letter, a disagreement with management is a financial accounting, reporting, or auditing matter, whether or not resolved to our satisfaction, that could be significant to the financial statements or the auditor's report. We are pleased to report that no such disagreements arose during the course of our audit.

Management Representations

We have requested certain representations from management that are included in the management representation letter dated October 9, 2023.

Management Consultations with Other Independent Accountants

In some cases, management may decide to consult with other accountants about auditing and accounting matters, similar to obtaining a "second opinion" on certain situations. If a consultation involves application of an accounting principle to the Authority's financial statements or a determination of the type of auditor's opinion that may be expressed on those statements, our professional standards require the consulting accountant to check with us to determine that the consultant has all the relevant facts. To our knowledge, there were no such consultations with other accountants.

Other Audit Findings or Issues

We generally discuss a variety of matters, including the application of accounting principles and auditing standards, with management each year prior to retention as the Authority's auditors. However, these discussions occurred in the normal course of our professional relationship and our responses were not a condition to our retention.

Group Audit

As part of our audit of the Authority, we utilize the audit information provided to us from other certified public accountants (component auditors) who audited certain components of the Authority's basic financial statements. The components are (1) the assets held in trust by OCERS for the Authority's Retiree Medical Plan, and (2) the Orange County Fire Authority Foundation (the Foundation) discretely presented component unit. Neither component auditor brought any matters to our attention which would require communication to the Authority Board of Directors or management. However, upon receiving the Foundation financial statements and component auditor's report thereon, we did identify discrepancies between those financial statements and the amounts reported in the Authority's financial statements. These discrepancies were primarily related to the recognition and classification of revenues and expenses, and assets and liabilities, which ultimately resulted in an immaterial variance between the two sets of statements. As a result of these discrepancies, and to gain additional assurance about the amounts reported in the Authority's financial statements, we performed additional procedures over the underlying accounting data prepared by the Authority's management. Our testing resulted in no



To the Board of Directors
Orange County Fire Authority
Irvine, California

identified corrections to the Authority's financial statements, however, it should be noted that the amounts between the Foundation statements and Authority statements do not fully agree for the year ended June 30, 2023. Absent the Foundation reconciling their statements to ensure consistency with that of the Authority's statements, we anticipate variances will continue to be reported in the future.

Other Matters

We applied certain limited procedures to management's discussion and analysis and the required pension and other postemployment benefits schedules, which are required supplementary information (RSI) that supplements the basic financial statements. Our procedures consisted of inquiries of management regarding the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We did not audit the RSI and do not express an opinion or provide any assurance on the RSI.

We were engaged to report on the combining and individual fund financial statements and schedules which accompany the financial statements but are not RSI. With respect to this supplementary information, we made certain inquiries of management and evaluated the form, content, and methods of preparing the information to determine that the information complies with accounting principles generally accepted in the United States of America, the method of preparing it has not changed from the prior period, and the information is appropriate and complete in relation to our audit of the financial statements. We compared and reconciled the supplementary information to the underlying accounting records used to prepare the financial statements or to the financial statements themselves.

We were not engaged to report on other information included in the annual report which is comprised of the introductory and statistical sections, which accompany the financial statements but are not RSI. Such information has not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on it.

Restriction on Use

This information is intended solely for the information and use of the Board of Directors and management of the Authority and is not intended to be, and should not be, used by anyone other than these specified parties.

Very truly yours,

A handwritten signature in cursive script that reads "Lance, Soll & Luyhard, LLP".

Brea, California

Summary of Unadjusted Audit Differences

Name of Governmental Unit: Orange County Fire Authority

Date of Combined Balance Sheet: June 30, 2023

Opinion Unit, Fund Type or Fund: All

Unadjusted Audit Differences	Cause	Current Year Over (Under) Revenues and Expenditures/Expenses and Changes in Fund Balance/Equity
Payments made after 6/30/2023 for expenditures incurred prior to 6/30/2023 were not accrued.	Closing	\$ (325,010)
Cash receipts received after 6/30/2023 for revenues earned prior to 6/30/2023 were not accrued.	Closing	6,136
Capital expenditures in government funds not converted to capital asset	Closing	105,071
Capital asset disposals not converted to loss	Closing	(6,653)
Cumulative effect (before effect of prior year differences)		(220,456)
Effect of unadjusted audit difference - prior year		269,898
Cumulative effect (after effect of prior year differences)		\$ 49,442

ORANGE COUNTY FIRE AUTHORITY

Fund Balance Assigned for Capital Improvement Program (CIP)

Final Calculation
As of June 30, 2023

Description	Source	General Fund CIP Fund 12110	Communications and Information Systems Fund 124	Fire Apparatus Fund 133	Fire Stations and Facilities Fund 123	Total
Actual Fund Balance Available for CIP Assignment						
Total actual fund balance at 6/30/2023	FYE 6/30/2023 ACFR, pages 27, 108	8,855,094	6,037,384	37,730,153	37,126,620	89,749,251
Less nonspendable fund balance - prepaid items	FYE 6/30/2023 ACFR, pages 27, 108	(44,990)	(16,881)	(8,708)	-	(70,579)
Less restricted fund balance	FYE 6/30/2023 ACFR, pages 27, 108			(12,530,156)	(17,641,560)	(30,171,716)
Less outstanding encumbrances:						
Pertaining to restricted resources		-	-	-	-	-
Pertaining to committed resources		-	-	-	-	-
Pertaining to assigned resources	FYE 6/30/2023 ACFR, pages 27, 108	(2,264,261)	(422,872)	(20,178,582)	(14,378,912)	(37,244,627)
Actual fund balance available for CIP assignment at 6/30/2023 (A)		6,545,843	5,597,631	5,012,707	5,106,148	22,262,329
Possible CIP Expenditures, Net of Offsetting Revenues and Funding Sources						
<u>Appropriations Re-Budgeted to Next Fiscal Year, Net</u>						
Carryover expenditures	Board of Directors approval 9/28/2023, Item #2D	5,997,029	3,972,908	-	21,525,225	31,495,162
Less: Carryover revenues	Board of Directors approval 9/28/2023, Item #2D	-	-	-	-	-
Net		5,997,029	3,972,908	-	21,525,225	31,495,162
<u>Five-Year CIP Plan - Budgeted CIP Projects, Net</u>						
Five-year CIP plan expenditures	FY 2023/24 Adopted Budget	59,336,920	19,650,000	110,236,490	27,650,000	216,873,410
Less: Offsetting five-year funding sources:						
Vehicle replacement charges (5 years)	Cash contract annual vehicle charge, as prepared by Finance Division / General Accounting Unit	-	-	(9,665,621)	-	(9,665,621)
Developer-funded projects (cost-reimbursable budgeted costs)	FY 2023/24 Adopted Budget	-	-	-	-	-
Other funding sources (US&R grant funding)	FY 2023/24 Adopted Budget	-	-	(234,500)	-	(234,500)
Net		59,336,920	19,650,000	100,336,369	27,650,000	206,973,289
<u>Other Costs Beyond Five-Year CIP Plan:</u>						
Debt service - Master Equipment Lease/Purchase Agreement - 2022	FYE 6/30/2023 ACFR, page 65 (annual lease payments subsequent to FY 2027/28)	-	-	49,248,060	-	49,248,060
Net		-	-	49,248,060	-	49,248,060
Possible CIP expenditures, net of offsetting revenues and funding sources (B)		65,333,949	23,622,908	149,584,429	49,175,225	287,716,511
Over (under) funded as of 6/30/2023 (A-B)		(58,788,106)	(18,025,277)	(144,571,722)	(44,069,077)	(265,454,182)
<u>Final Fund Balance Assignment</u>						
Actual fund balance available for CIP assignment at 6/30/2023		6,545,843	5,597,631	5,012,707	5,106,148	22,262,329
Less: Over funded amount to be transferred back to the General Fund		-	-	-	-	-
Final fund balance assignment at 6/30/2023	FYE 6/30/2023 ACFR, page 27	6,545,843	5,597,631	5,012,707	5,106,148	22,262,329

ORANGE COUNTY FIRE AUTHORITY
Fund Balance Assigned for Workers Compensation
Final Calculation
As of June 30, 2023

Attachment 5B

Description	Source	Self Insurance Fund		
		Final Budget	Positive (Negative) Variance	Actual
Revenues:				
Interest	FYE 6/30/2023 ACFR, pages 110, 113	\$ 2,084,397	501,171	\$ 2,585,568
Workers' compensation charges	FYE 6/30/2023 ACFR, pages 110, 113	30,754,757	-	30,754,757
Insurance recoveries	FYE 6/30/2023 ACFR, pages 110, 113	82,855	-	82,855
Subtotal - revenues		32,922,009	501,171	33,423,180
Expenditures:				
Workers' compensation claims paid	FYE 6/30/2023 ACFR, pages 110, 113	(17,212,913)	2,083,814	(15,129,099)
Subtotal - expenditures		(17,212,913)	2,083,814	(15,129,099)
Total change in fund balance		\$ 15,709,096	\$ 2,584,985	\$ 18,294,081
		(A)	(B)	
Assignment for Workers' Compensation:				
Actual assignment at 6/30/2022	FYE 6/30/2022 ACFR, page 27		\$ 125,039,963	
Budgeted change in fund balance	(A)		15,709,096	
Budgeted assignment at 6/30/2023			140,749,059	
Variance between final budget and actual amounts	(B)		2,584,985	
Actual assignment at 6/30/2023	FYE 6/30/2023 ACFR, page 27		\$ 143,334,044	

Orange County Fire Authority
Calculation of Unencumbered Fund Balance
General Operating Fund (121 & 12150)*
Fiscal Year 2022/23

	Final Budget Amounts	Actual Amounts	Variance with Final Budget Positive (Negative)
Property tax revenue (Structural Fire Fund - SFF)	\$ 325,727,253	\$ 326,138,528	\$ 411,275
Other revenues	261,475,778	233,881,406	(27,594,372)
Transfers in	3,097,603	3,097,603	-
Issuance of lease	-	18,711,118	18,711,118
Subtotal revenues and transfers in	(A) 590,300,634	581,828,655	(8,471,979)
Expenditures	561,515,271	550,014,528	11,500,743
Transfers out	26,110,226	26,110,226	-
Subtotal expenditures and transfers out	587,625,497	576,124,754	11,500,743
Less: Prior year encumbrances	(1,468,496)	(1,248,027)	(220,469)
Plus: Current year encumbrances	-	2,061,177	(2,061,177)
Subtotal budgetary expenditures	(B) 586,157,001	576,937,904	9,219,097
Total unencumbered fund balance before adjustments	(A+B) 4,143,633	4,890,751	747,118
Reconciling Items:			
Rebudget of FY 2022/23 uncompleted projects:			
Carryover budgeted FY 2022/23 revenues			21,467,150
Carryover budgeted FY 2022/23 appropriations			(22,046,115)
Subtotal			(578,965)
GASB 31 interest adjustment (investment market value)			5,210
Subtotal			5,210
Total reconciling items	(C)		(573,755)
Total unencumbered fund balance with adjustments	(A+B+C)		\$ 173,363
FY 2023/24 General Operating Fund budget (expenditures, other uses, and transfers out)			\$ 527,910,010
Unencumbered fund balance as a percentage of next year's General Operating Fund budget			0.03%

* In the Financial Statements, the Combined General Fund includes four "sub-funds" as follows: General Fund CIP (12110), Structural Fire Entitlement (171), Workers' Compensation (190), and Settlement Agreement (139) which should not be included in the calculations of unencumbered fund balance. Therefore, activities in these four sub-funds have been eliminated from this calculation. The "General Operating Fund" includes only the General Fund (121) and the Property Management sub-fund (12150), which is identified separately only for internal accounting purposes.



Orange County Fire Authority
AGENDA STAFF REPORT

Board of Directors Meeting
November 16, 2023

Agenda Item No. 2H
Consent Calendar

Quick Reaction Force (QRF) Program

Contact(s) for Further Information

Brian Fennessy, Fire Chief	brianfennessy@ocfa.org	714.573.6010
Tim Perkins, Assistant Chief South Operations	timperkins@ocfa.org	949.702.3868

Summary

This agenda item is submitted for approval of budget and contracts for the 2024 Quick Reaction Force (QRF) Program for 365 days from January 1, 2024 through December 31, 2024, with the option to renew for the 2025 Program year, in collaboration with Southern California Edison (SCE), Coulson Aviation (USA), Inc. (CAI), and the Orange County Fire Authority. The regional program will continue to operate in conjunction with Los Angeles County Fire Department (LACoFD) and Ventura County Fire Department (VCFD) and be available 24 hours a day for daytime and nighttime firefighting.

Prior Board/Committee Action

On November 17, 2022, the Board of Directors authorized the extension of the QRF Program for a duration of 390 days through December 31, 2023. This included approval of \$15,994,605 in funding and approval of various agreements for services including aerial firefighting equipment, a mobile retardant base, a program manager, Air Tactical Group supervisors, and other related services.

On November 8, 2023, the Budget and Finance Committee reviewed the proposed agenda item and directed staff to place the item on the Board of Directors agenda by a vote of 7-0 (Directors Patel and Nguyen absent).

RECOMMENDED ACTION(S)

1. Approve the Funding Agreement with Southern California Edison in the attached form to accept funding in the amount of \$16,007,672 to fund the fixed-cost portion of the 365-day 2024 Quick Reaction Force Program, with the option to renew for the 2025 Program year (pending SCE funding for 2025).
2. Approve and authorize the Purchasing Manager to enter into new QRF-related vendor contracts, in the forms attached by the individual amounts needed in support of the QRF Program so long as the aggregate value does not exceed the program budget (see table).
3. Approve and authorize a FY 2023/24 General Fund (121) budget adjustment to recognize 2024 Program funding from SCE for a revenue increase of \$16,007,672 and to increase appropriations by the same amount. The 2025 Program funding will be reflected in the 2024-25 budget if SCE exercises the option to renew funding.

4. Approve the updated Cost Reimbursement Rate schedule to include the CH-47 Very Large Helitanker, S-61 Helitanker, and S-76 Helitanker daily stand-by and hourly flight rates, and mobile fire-retardant plant daily stand-by and hourly rates, and hourly rates for Program Manager and Air Tactical Group Supervisors to be effective January 1, 2024.
5. Adopt an exemption from the California Environmental Quality Act (CEQA) pursuant to Title 14, California Code of Regulations, Section 15301 (Existing Facilities) and direct staff to file a Notice of Exemption.
6. Authorize the Fire Chief to approve non-substantive changes to the Agreements in items 1, 2 and 3 above, provided such changes are consistent with the purpose of the program described herein, do not increase the total cost of the program in either program year, and are in a form approved by General Counsel.
7. All the foregoing approvals and authorizations are conditional upon Consolidated Fire Protection District of Los Angeles County and Ventura County Fire Department approval of funding agreements with SCE for the 2024 Quick Reaction Force Program and related agreements.

Impact to Cities/County

The QRF services will enhance regional aerial wildland fire response.

Fiscal Impact

Authorization of the Budget Adjustment will increase revenues and expenditures by the SCE funding allocation of \$16,007,672 in the FY 2023/24. Total funding for QRF services will come in the form of SCE funds, ABH reimbursements from other fire agencies requesting QRF services, and use of State Augmentation Funds for any non-reimbursable flight time, helicopter managers, and air base costs. The 2025 Program funding will be reflected in the 2024-25 budget if the option to renew the 2025 QRF Program is exercised by SCE.

Background

Quick Reaction Force (QRF) Program

Wildland fire remains the most significant threat to life and property in California. Given the devastating and destructive wildfires of recent years, Governor Gavin Newsom, as well as fire agencies and utility companies throughout the state, continue to emphasize that wildfire mitigation and suppression are a top priority. The QRF is organized and dispatched as a complete aviation suppression package with everything it needs to operate at full capacity without having to rely on logistical support from the incident organization. When a wildland fire exceeds the suppression effort mounted during initial attack, the QRF Program rapidly deploys additional reinforcement aircraft including Very Large Helitankers, Aerial Supervision aircraft, and mobile fire-retardant plant services. The components of the QRF will again be strategically located throughout the three partner counties with Orange County's resources based at the Fullerton Municipal and Chino Airports. The QRF will operate within the defined fire threat areas of the SCE service territory as illustrated in the map (Attachment 6). Pending Board approval, the QRF Program will operate 24/7 for an additional 365-days from January 1, 2024 through December 31, 2024 with the option to renew for the 2025 Program year is exercised by SCE.

Selection of Coulson Aviation (USA) Inc.

Solicitation Process

After SCE announced its intent to fund the 2024 QRF program, OCFA staff issued Request for Proposals (RFP) SK2597 in accordance with Section 1-18 of the OCFA Purchasing Ordinance (Ordinance) on April 5, 2023 to select an aircraft provider. In accordance with Section 1-44 of the

Purchasing Ordinance, the RFP utilized “Brand name or equal” specifications and documented that the purpose for this was to describe the standard of quality, performance, and other characteristics required for the program. The RFP included the specific aircraft that were used in prior QRF Programs and provided instructions on the type of information to submit if a firm proposed equivalent aircraft to what was specified. A pre-submittal teleconference was held on April 17, 2023 and two firms attended. Questions surrounding aircraft capabilities were discussed and a response was provided in Addendum One to the solicitation. No disputes relating to the solicitation process were received and two proposals were submitted prior to the advertised due date and time. The evaluation criteria utilized to determine which Firm offers the best value, as defined in Section 1-15(1) of the Ordinance included: Method of Approach (30 points), Qualifications, Relevant Experience & Past Performance (45 points), and Pricing for VLHT (25 points).

ORANGE COUNTY FIRE AUTHORITY						
SK2597 - Aerial Firefighting Helitanker Services						
	Billings Flying Services			Coulson Group		
Cost Proposal - Year One Total	\$10,070,891			\$14,047,457		
Evaluators	1	2	3	1	2	3
A. Method of Approach (30)	12.00	9.00	15.00	30.00	30.00	24.00
B. Qualifications, Relevant Experience & Past Performance (45)	22.50	22.50	22.50	45.00	45.00	36.00
C. Price (25)	25.00	25.00	25.00	17.92	17.92	17.92
Sum of Written Proposal Scores	59.50	56.50	62.50	92.92	92.92	77.92
Initial Ranking	2	2	2	1	1	1
Sum of Initial Rankings	6.00			3.00		
Overall Rank:	2			1		

Brief summaries of the two proposals are as follows:

Coulson Aviation:

Coulson demonstrated having experience suppressing wildfires at night here in the United States, South America and Australia. The CH47 has a 3,000-gallon tank which was superior in its ability to carry water or retardant, translating into potentially greater efficiency. Their proposal met and/or exceeded the aircraft, equipment, experience and training requirements. The proposal included a spare aircraft (S61) that could be utilized when there is unplanned maintenance. Coulson also met the request for the Type II command and control aircraft used as a Helicopter Coordinator (HLCO) platform.

Billings Flying Service:

The proposal submitted by Billings provided a well written response identifying information about the firm’s experience, staff and technical resources. Billings has a strong history suppressing wildfire as call when needed (CWN) or exclusive use (EU) contracts during the day but lacked the necessary night flying experience. The proposed equipment lacked a retractable snorkel, which was part of requested equipment. The proposal also lacked the requested Type II twin engine aircraft for the HLCO platform. There were also questions regarding personnel availability to have 24-hour operational coverage 365 days a year.

The panel evaluators unanimously ranked Coulson Aviation highest in the evaluation criteria and for the above discussed reasons, the rankings demonstrated that the proposal submitted by Coulson Aviation provides the best overall value to OCFA.

Rank	Firm	Aircraft Proposed	VLHT Hourly Rates	Est. 2024 Cost (8,760 Hrs. Standby & 110 Hrs. Flight Time)
1	Coulson Aviation	VLHT, ATGS Platform, Spare Aircraft (S-61)	SB: \$1,016.10 Flight: \$10,462.36	\$14,047,456.55
2	Billings Flying Services	VLHT	SB: \$1,028.00 Flight: \$9,687.37	\$10,070,891.00

Selection of Perimeter Solutions

Sole Source Justification

In accordance with Section 1-21(1) of the OCFA Purchasing Ordinance, a “General Sole Source” procurement contract is recommended when it is determined, after conducting a good faith review of available sources, that there is only one source for the required service. The United States Forest Service (USFS) produces a Qualified Products List (QPL) detailing the fire retardant products that are approved for application on Federal lands. CAL FIRE also utilizes this list when determining what retardants may be applied to State lands. Per the USFS QPL, Phos Chek 259-Fx is the only retardant that may be dropped from the type of helitankers that will be utilized in the QRF program. Perimeter Solutions is the manufacturer of this unique, approved product and as such Perimeter is a key supplier to the USDA Forest Service, CAL FIRE and other large fire management agencies. Additionally, Perimeter Solutions is the only full-service solutions provider with a fire safety office, equipment, personnel, and available long term retardant materials in the Orange County region that can be deployed within 2-3 hours from initial call.

Program Funding

SCE has agreed to provide \$16,007,672 for the 2024 QRF Program year in an effort to increase the effectiveness of aerial response to wildland fires and will cover the fixed costs of the CH-47, S-61 and S-76 Aerial Supervision Aircraft and the ATGS/HLCO for 365 days. In addition, SCE will fund the standby costs for the mobile retardant plant for 180 days during the highest-risk portion of the year, expected to be on standby July – December 2024. SCE will also fund a program management for the 2024 program up to \$610,000. In consideration for SCE’s commitment to provide Program Funding, the Agreement includes new provisions that OCFA (in partnership with SCE) will engage in legislative discussions that could support future funding from additional sources.

Separate from the SCE Program Funding, agencies requesting QRF services will cover the variable costs via ABH cost reimbursement. Program non-reimbursable costs will be covered by State Augmentation funds. The table below details the funding and estimated spending caps for the 2024 QRF Program:

Program Funding:		
Funding Source	Description	2024 Program Total
Southern California Edison	365-day Program Contribution (applicable to fixed costs)	\$16,007,672
Total Funding Sources:		\$16,007,672*

Program Spending Caps:			
Contractor	Resource	Detail	Spending Cap

Coulson Aviation Inc.	CH-47/S-61 Very Large Helitankers	Stand-by Lease: \$24,386.42 a day x 365-days (fixed-cost)	\$8,901,043
		Est. Flight time**: \$10,462.36 per hour x 200 hours (variable cost)	\$2,092,472
	S-76 Aerial Supervision Aircraft	Stand-by Lease: \$7,759.53 a day x 365-days (fixed-cost)	\$2,832,228
		Est. Flight time: \$3,969 per hour x 100 hours (variable cost)	\$396,900
Perimeter Solutions	Mobile Retardant Plant	\$10,080 a day x 180-days (fixed-cost)	\$1,814,400
		Est. Freight costs, overtime, water tender, etc. (variable cost)	\$572,728
ATGS/HLCO	Air Tactical Group Supervisors/Helicopter Coordinator	\$2,500 a day per ATGS x 365-days. Two ATGS's per day (fixed-cost)	\$1,825,000
		Incidentals/Travel/Misc.	\$25,000
Program Management	Professional Services and OCFA Staff Costs***	As needed/on demand Professional Services & OCFA Salary and Employee Benefits Costs	\$500,000
		OCFA Program Management	\$110,000
Air Base	Chino Airport	Airfield to serve as home base for aircraft	\$300,000
Total Spending Cap:			\$19,369,772

- * Balance of funding will come from ABH Cost Recovery and use of State Augmentation funds.
- ** Coulson will substitute the S-61 in place of the CH-47 when necessary (estimated at 40 hours) and with the approval of the Fire Chief. The S-61 Flight rate is \$6,082.68, however budgeting is at the CH-47 level.
- *** The Program Management aggregate spending cap is available for both contracted services and OCFA Staff. OCFA Staff will serve in the Program Manager role during periods of time when contractor is unavailable. Aggregate spending will not exceed \$610,000.

Optional 2025 Program Year

For the 2025 Program for the period January 1, 2025 through December 31, 2025, SCE has the option to fund the Program for the amounts agreed upon by OCFA for the stand-by costs and other reasonable Program costs (the “2025 Funding Amount”), provided that the increase in the 2025 Funding Amount over the 2024 Funding Amount does not exceed 3% (the “2025 Cap”), unless another amount is agreed to in writing by OCFA and one of the officers of SCE. SCE must notify OCFA in writing whether it will fund the 2025 Program. In the event SCE opts not to renew for

the 2025 Program Year, provisions of the Agreements with SCE and with the Coulson Group include pass-through payment from SCE, through OCFA, to the Coulson Group of a non-renewal fee in the amount of \$6 million.

Resources Available to Other Fire Agencies Upon Request

The CH-47 VLHT, S-61 helitanker, and S-76 Aerial Supervision Aircraft daily standby lease and hourly flight rates, the mobile retardant plant daily standby and variable cost rates, Air Tactical Group Supervisors, and a Program Manager are being added to the equipment cost reimbursement rate schedule (attached). This will serve as the basis for OCFA cost reimbursement for services requested by other fire service agencies. OCFA will be responsible for the flight-time charges for OCFA's own use of the CH-47, S-61, and S-76 Aerial Supervision Aircraft resources.

California Environment Quality Act (CEQA) Exemptions

CEQA's Class 1, Existing Facilities Exemption, applies to the operation, repair, maintenance, permitting, leasing, licensing, or minor alteration of existing public or private facilities, structures or topographical features involving negligible or no expansion of an existing or former use. (14 Cal. Code Regs., tit. 14, § 15301.) The Fullerton and Chino Airports are home to existing aerial facilities and operations. The Agreements would result in OCFA's temporary storage and operation of a CH-47 Very Large Helitanker, S-61 Helitanker, and S-76 coordination helicopter, and mobile fire-retardant plant at the Chino Airport for 365 days. Notably, the CH-47, S-61, and S-76 helicopters will be made available to over 15 other counties in the Southern California region; therefore, these helicopters could also be fighting fires in those other counties during this time. Based on all of the foregoing, the MOU calls for the operation of existing public and private facilities with no or negligible expansion of an existing use and the Class 1 Exemption therefore applies.

Staff recommends approval of the stated recommended actions for the 2024 QRF Program from January 1, 2024 through December 31, 2024 with the option to renew for the 2025 Program year (pending SCE funding for 2025).

Attachment(s)

1. Proposed Funding Agreement with Southern California Edison (*Draft*)
2. Proposed Agreements (*Drafts*)
3. Proposed Southern California Edison Service Territory Map
4. Proposed Cost Reimbursement Rates – Equipment

**FUNDING AGREEMENT BY AND BETWEEN THE ORANGE COUNTY FIRE
AUTHORITY AND SOUTHERN CALIFORNIA EDISON COMPANY**

This Funding Agreement (“Agreement”) is by and between THE ORANGE COUNTY FIRE AUTHORITY, a California Joint Powers Authority (“OCFA”) and SOUTHERN CALIFORNIA EDISON COMPANY, a California corporation (“SCE”), and is effective on the last date when both Parties sign this Agreement (the “Effective Date”). OCFA and SCE may be referred to herein individually as a “Party” and collectively as the “Parties.”

RECITALS

WHEREAS, due to extreme weather associated with climate change, Southern California has experienced longer and more severe wildfire events throughout the year;

WHEREAS, to increase the effectiveness of its aerial response to wildfires, OCFA intends to enter into agreements for 2024 and 2025 that provide: (1) a 365 day lease and service agreement with Coulson Aviation (“Coulson”) for a CH47 and an S76 aerial supervision helicopter or their functional equivalents; and (2) a service agreement with Perimeter Solutions (“Perimeter”) for one Mobile Retardant Base (“MRB”) with a twelve-hour supply of retardant (such assets together, the “Fire Suppression Assets”); and (3) to fund an OCFA program manager to manage the Fire Suppression Assets and qualified aerial supervisors that meet Incident Command System standards (“QAS”).

WHEREAS, SCE has determined that the use of the Fire Suppression Assets offers significant benefits for wildfire suppression, protecting lives and property, including mitigating against damage to SCE’s transmission and distribution system, and increasing firefighter safety;

WHEREAS, OCFA and SCE desire for SCE to fund these activities for calendar year 2024 and have the option to fund these activities for 2025 as described herein.

WHEREAS, the Parties desire to enter into an Agreement that sets forth the terms and conditions pursuant to which SCE will contribute funds in the amounts set forth in this Agreement to OCFA for (1) the fixed lease costs with Coulson relating to helicopter stand-by costs, and the daily stand-by costs with Perimeter for the MRB including costs for fire retardant and gel, (2) QAS staffing costs, and (3) program manager costs (collectively, (1), (2), and (3) are the “Program”), while OCFA agrees to fund any and all flight time, operational costs, and any other costs incurred by OCFA in the Coulson and Perimeter lease and service agreements; and

NOW THEREFORE, for valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties agree as follows:

1. The 2024 Funding Arrangement.

Not later than January 19, 2024, SCE will electronically transfer the amount of sixteen million seven thousand and six hundred seventy two dollars (\$16,007,672) (the “2024 Funding Amount”) to OCFA. OCFA will use these funds exclusively to fund the Program costs. The lease agreement

with Coulson must begin on January 1, 2024 and end on December 31, 2024. The service agreement with Perimeter must begin on July 1, 2024 and end on December 28, 2024. OCFA shall fund the flight time and operational portions of the Coulson and Perimeter lease and services agreements, which include any and all costs required to operate the Fire Suppression Assets. The Parties acknowledge that time is of the essence in performing their obligations herein. If, for any reason, OCFA does not enter into the Coulson lease by December 1, 2023, or such other date agreed to by the Parties in writing, then SCE shall have no obligation to provide funding for the Program for 2024 and 2025 and shall not be required to pay the non-renewal fee described in Section 4. If SCE has provided the 2024 Funding Amount and OCFA does not enter into the Perimeter service agreement by July 1, 2024, or such other date agreed to by the Parties in writing, then OCFA shall return the amount of one million eight hundred fourteen thousand four hundred dollars (\$1,814,400) to SCE.

2. 2025 Funding Option

For the 2025 Program for the period January 1, 2025 through December 31, 2025, SCE has the option to fund the Program for the amounts agreed upon by OCFA for the stand-by costs and other reasonable Program costs (the “2025 Funding Amount”), provided that the increase in the 2025 Funding Amount over the 2024 Funding Amount does not exceed 3% (the “2025 Cap”), unless another amount is agreed to in writing by one of the officers of SCE named in section 6 A. Not later than September 30, 2024 (subject to the other provisions of Section 4), SCE shall notify OCFA in writing whether it will fund the 2025 Program. If SCE elects to fund the 2025 Program, then not later than January 17, 2025, SCE will electronically transfer the 2025 Funding Amount to OCFA. OCFA will use these funds exclusively to fund the Program costs. The lease agreement with Coulson must begin on January 1, 2025 and end on December 31, 2025. The service agreement with Perimeter must begin on July 1, 2025 and end on December 28, 2025. OCFA shall continue to fund the flight time and operational portions of the Coulson and Perimeter lease and services agreements, which include any and all costs required to operate the Fire Suppression Assets. The Parties acknowledge that time is of the essence in performing their obligations herein. If, for any reason, OCFA does not enter into the Coulson lease by December 1, 2024, or such other date agreed to by the Parties in writing, then SCE shall have no obligation to provide funding for the Program for 2025 and shall not be required to pay the non-renewal fee described in Section 4. If SCE has provided the 2025 Funding Amount and OCFA does not enter into the Perimeter service agreement by July 1, 2025, or such other date agreed to by the Parties in writing, then OCFA shall return that portion of the 2025 Funding Amount related to Program costs attributable to Perimeter to SCE.

3. Reimbursement of Funds Received from Other Sources

OCFA will work with members of the California legislature to gain support for a legislative effort to secure funding or reimbursement for the 2024 and 2025 Programs from the State of California. If Assemblywoman Cottie Petrie-Norris or other California legislators support such legislative

efforts, then OCFA will coordinate with its legislative lobbyists to draft proposed legislation and pursue support for the legislation. In support of OCFA's activities, SCE will coordinate its activities as appropriate with OCFA to support such legislation.

If OCFA obtains funding for the 2024 or 2025 Program from any entity other than SCE in advance of the start of the 2024 or 2025 Program, SCE's funding requirement for the 2024 or 2025 Program shall be reduced by the amount of such funding OCFA has received from other sources; provided, however, that OCFA shall not be required to reduce the 2024 or 2025 Funding Amounts to the extent the funds are clearly designated for flight time, OCFA's operational costs, or other non-Program costs borne by OCFA.

If OCFA receives funding or reimbursement from any entity other than SCE for all or part of its 2024 or 2025 Program after the start of the Program year, or for any reason does not spend all of the 2024 or 2025 Funding Amounts, then the amount of the third party funding or reimbursement, or unspent funds shall be applied as a credit to the funding agreement to the following year, if any, or refunded to SCE; provided, however, that OCFA shall not be required to reimburse or credit such funds to the extent the funds are clearly designated as a reimbursement for all or part of OCFA's actual operating costs incurred in fighting a fire.

If OCFA receives funds as a result of any judgment, regulatory or administrative agency decision, claim, or settlement arising from a specific fire incident or incidents whether obtained directly by OCFA or through another government entity for fires in 2024 or 2025 in which the Fire Suppression Assets were used, OCFA shall reimburse SCE for a pro rata share of such funds based on the standby costs incurred from the start of the fire incident or incidents response through the end of such incident or incidents response.

4. Non-Renewal Fee

If SCE elects not to fund the 2024 or 2025 Program, SCE shall pay OCFA a non-renewal fee of six million dollars (\$6,000,000), which OCFA will pay to Coulson under the terms of its agreement(s) with Coulson. SCE shall not be obligated to pay the non-renewal fee, regardless of whether it already has given notice of its intent to fund the 2024 or 2025 Programs, if:

- (1) OCFA has terminated the 2024 lease agreement with Coulson because of Coulson's uncured breach;
- (2) a force majeure event has prevented Coulson's performance of its contractual obligations with Coulson in 2023 or 2024 and the force majeure event could reasonably extend into 2024 or 2025;

- (3) OCFA or another firefighting agency or department covering SCE's service territory obtains funding of the 2024 or 2025 Program elements or their functional equivalents from any entity other than SCE in advance of the start of the next year's Program;
- (4) OCFA and Coulson do not reach agreement on terms for the 2024 or 2025 lease agreements or OCFA does not comply with the requirements of Section 5 concerning required terms in the lease agreements;
- (5) by December 1, 2023 or December 1, 2024, respectively, either Ventura County Fire Department (VCF) or Los Angeles County Fire Department (LAC) (or two other county fire departments within SCE's service territory, the "Replacement Agencies") do not enter into lease arrangements with Coulson for similar assets to be funded in part by SCE;
- (6) OCFA, VCF, LAC or the Replacement Agencies do not provide SCE with indemnity equivalent to the indemnity in Section 8 of this Agreement or include the required terms set forth in Section 5 in their contracts with Coulson; or
- (7) OCFA is unable to complete arrangements with Coulson for the 2024 or 2025 Program because SCE has elected not to provide funding, but Coulson has mitigated the lack of OCFA funding by entering into a lease agreement or agreements of 12 months or more for use of the aerial assets with another US based entity by December 31, 2023 or December 31, 2024, respectively.

For clarity, the non-renewal fee is a one-time payment if SCE elects not to fund the 2024 or 2025 Program, or both. Except as set forth in this Section 4, if SCE elects not to fund the 2024 Program, it shall pay the \$6,000,000 non-renewal fee in 2024 and have no further obligation for the 2025 Program. Except as set forth in this Section 4, if SCE funds the 2024 Program but elects not to fund the 2025 Program, it shall pay the \$6,000,000 non-renewal fee in 2025.

5. Other Terms and Conditions for the Lease Agreements with Coulson

OCFA is responsible for negotiating with Coulson terms for each lease agreement, which agreements must comply with the commercial terms set forth in Sections 1 and 2. Additionally, OCFA shall require Coulson to include the following covenants in each lease agreement: (1) SCE is a named additional insured of each insurance policy during the term of the agreement; and (2) Coulson is and will perform the services as an independent contractor of OCFA. OCFA shall also require Coulson to provide representations and warranties that throughout the term: (1) Coulson has and will maintain full legal authority to operate consistent with the terms of the lease agreement; (2) Coulson will only use pilots and crew who are and remain fully qualified and trained as required by applicable law and industry best practices; and (3) Coulson will comply with all applicable laws, rules and regulations. Within 45 days following an incident in which the Fire Suppression Assets are used, Coulson will produce a post-incident report similar to the report that Coulson produced after the 2022 Route Fire. Within five (5) business days after a written request by SCE, OCFA shall confirm in writing that its contract with Coulson complies with each

of the requirements of this Section 5. If OCFA does not provide such written confirmation that its contract with Coulson complies with each of the requirements of this Section 5, then SCE may exercise its non-renewal right under Section 4 regardless of whether it has previously confirmed in writing its intent to fund the lease and services agreement for the following year as set forth in Sections 1 and 2.

6. Operations

A. Operations Outside SCE's Service Territory

The Fire Suppression Assets are intended primarily for use in fighting wildfires in SCE's service territory. Before using any of the Fire Suppression Assets more than one (1) mile outside SCE's service territory, OCFA shall discuss the intended use of the Fire Suppression Assets, including location, timing, and scope of activities, with either Steven Powell, SCE's President, or Jill C. Anderson, SCE's Executive Vice-President, Operations (or their delegates), and obtain their verbal consent for the intended use of the Fire Suppression Assets; provided further that the Fire Suppression Assets will be directed to promptly return to SCE's service territory if, in the judgment of Steven Powell, SCE's President, or Jill C. Anderson, SCE's Executive Vice-President, Operations (or their delegates) after consultation with OCFA's Fire Chief, OCFA and SCE determine that the Fire Suppression Assets are necessary or useful to assist in firefighting efforts in SCE's service territory. For clarity, if SCE gives consent for OCFA to use the Fire Suppression Assets outside SCE's service territory as described in this subsection, then OCFA, in the exercise of its professional judgment, may elect not to use the Fire Suppression Assets outside SCE's service territory or to recall the Fire Suppression Assets; provided, however, that if a decision is made as described in this subsection that the Fire Suppression Assets are necessary or useful in firefighting efforts in SCE's service territory and must be promptly returned to SCE's service territory, OCFA shall have no further discretion regarding that decision.

B. Roles and Responsibilities.

SCE will communicate with OCFA concerning fire weather forecasts and share information in SCE's possession relevant to the repositioning or tasking of the Fire Suppression Assets; provided, however, that SCE makes no representation or warranty as to the accuracy or completeness of such forecasts and information in connection with this Agreement. SCE understands and acknowledges that OCFA can and does rely on other sources of data, forecasts and information when making decisions concerning repositioning or tasking of the Fire Suppression Assets, and that, subject to the limited exception described in Section 6A, such decisions are made in the sole discretion of OCFA.

Notwithstanding the limited exception described in Section 6A, SCE shall have no role in directing the operation or use of the helicopters and shall not be a party to the lease agreements with Coulson and Perimeter. As between SCE and OCFA, and subject to the limited exception described in Section 6A, OCFA is solely responsible for the safe and lawful operation and use

of the Fire Suppression Assets, including all decisions regarding deployment, maintenance, basing and positioning, pilot readiness, and ground support, and OCFA shall be solely responsible for compliance with the terms and conditions of the lease and all payments thereunder.

7. Data Collection.

OCFA will collect and provide the data and information that SCE requires to allow SCE to (1) evaluate the effectiveness of the Fire Suppression Assets in suppressing wildfires, protecting lives and property, and increasing firefighter safety, and (2) respond to information requests from, or make regulatory filings and reports to, the California Public Utilities Commission (“CPUC”) and other regulators or governmental departments or agencies. Such data shall include, but not be limited to, the following: (a) aircraft utilization rate (flight time conducting suppression missions vs. standby hours), (b) gallons of water, gel or fire retardant dropped and number of drops per fire, (c) individual named fire perimeter maps illustrating drop locations, (d) post-incident reports prepared by Coulson and (e) whether and to what extent the Fire Suppression Assets are utilized outside of SCE’s service territory. OCFA shall work with Coulson Aviation to submit the foregoing data in report form and GIS shapefile to SCE on a monthly basis on the first day of each calendar month through the term of the Helitanker Provider lease and within five (5) days of SCE’s written request therefore at any other time during the term of the Helitanker lease term.

8. Indemnification.

To the maximum extent permitted by law, OCFA shall indemnify, defend, and hold harmless SCE, and its respective successors, assigns, affiliates, subsidiaries, parent company, officers, directors, agents, and employees (“Indemnified Parties”), from and against any and all expenses, claims, losses, damages, liabilities or actions in respect thereof (including reasonable attorneys’ fees and reasonably allocated cost of in-house counsel) to the extent arising from or related to the lease service agreements with Coulson and Perimeter, the professional services agreements with the Program Manager and the Air Tactical Group Supervisors, or operation or use (including, but not limited to prepositioning or tasking) of the Fire Suppression Assets. For clarity, regardless of whether SCE’s equipment was a cause of the wildfire, the preceding indemnification does not obligate OCFA to indemnify, defend, or hold harmless the Indemnified Parties, or any of them, from any third-party claim that any of the Indemnified Parties caused the wildfire, but only to claims that the operation or use of the Fire Suppression Asset resulted in damage to a third-party.

9. Authority to Contract.

Each Party represents and warrants that it has the authority to contract or otherwise commit to perform the obligations herein.

10. Relationship of the Parties.

Nothing in this Agreement is intended to, or shall be deemed to, establish any partnership or joint venture between the Parties, constitute any Party to be the agent of another Party, nor authorize any Party to make or enter into any commitments for or on behalf of another Party.

11. Public Announcements.

Neither Party may issue any press release regarding the Agreement unless (1) the press release is issued jointly by the Parties, or (2) prior to the release, the Party proposing to make the announcement furnishes the other Parties with a copy of the press release and obtains the other Parties' written approval; provided, however, that if such press release is required to comply with applicable laws, including the California Public Records Act and the Ralph M. Brown Act, legal proceedings, or the rules and regulations of any court or stock exchange having jurisdiction over a Party, then the Parties shall work in good faith to develop a mutually acceptable announcement.

12. Term and Survival.

This Agreement shall be effective as of the Effective Date through the date that all obligations of the Parties hereto with respect to this Agreement have been satisfied (the "Term"), except that the Parties shall continue to be bound by the provisions of this Agreement which by their nature survive such completion or termination, including Sections 3 ("Reimbursement of Funds Received from Other Sources"), 4 ("Non-Renewal Fee"), 8 ("Indemnification") and 15 ("Governing Law").

13. Written Notices.

All notices, requests, demands, and determinations under the Agreement (other than routine operational communications), shall be in writing and shall be deemed duly given: (1) when delivered by hand, (2) one day after being given to an express courier with a reliable system for tracking delivery, (3) when sent by confirmed facsimile or electronic mail with a copy sent by another means specified in this Section, or (4) three days after the day of mailing, when mailed by United States mail, registered or certified mail, return receipt requested, postage prepaid, and as addressed as specified below:

If to OCFA, addressed to:

Brian Fennessy

Fire Chief

1 Fire Authority Road

Irvine, CA 92602

If to SCE, address to:

Melanie Jocelyn

Southern California Edison Company

2244 Walnut Grove Ave.

Rosemead, CA 91770

Fax: (714) 368-8800

Email: melanie.jocelyn@sce.com

Email: brianfennessy@ocfa.org

With a Copy to:

David Kendig

c/o Woodruff & Smart

555 Anton Boulevard, Suite 1200

Costa Mesa, CA 92626

Fax: (714) 415-1183

Email: dkendig@woodruff.law

14. Assignment.

No Party shall assign this Agreement or any part or interest thereof, without the prior written consent of the other Parties, and any assignment without such consent shall be void and of no effect.

15. Governing Law.

This Agreement shall be interpreted, governed, and construed under the laws of the State of California as if executed and to be performed wholly within the State of California.

16. Entire Agreement.

This Agreement contains the entire agreement and understanding between and among the Parties and merges and supersedes all prior agreements, representations and discussions pertaining to the subject matter of this Agreement. This Agreement is intended to be a final expression of the agreement of the Parties and except to the extent expressly referenced herein, is an integrated agreement within the meaning of Section 1856 of the California Code of Civil Procedure (the Parole Evidence Rule). There are no contemporaneous separate written or oral agreements between the Parties in any way related to the subject matter of this Agreement. No subsequent agreement, waiver, modification, representation or promise with respect to the subject matter of the Agreement made by the Parties hereto, or by or to any employee, officer, agent or representative of any Party shall be of any effect unless it is in writing and executed by the Parties hereto.

17. Counterparts and Electronic Signatures.

This Agreement may be executed in one or more counterparts, each of which shall be deemed to be an original, but all of which together shall be deemed to be one and the same instrument. Documents executed, scanned and transmitted electronically and electronic signatures shall be deemed original signatures for purposes of the Agreement and all matters related thereto, with such scanned and electronic signatures having the same legal effect as original signatures.

[Signatures on Following Page]

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed by their duly authorized representatives.

“OCFA”

ORANGE COUNTY FIRE AUTHORITY

By: _____

Brian Fennessy

Fire Chief

Date: _____

APPROVED AS TO FORM.

ATTEST:

By: _____

David E. Kendig

General Counsel

Maria D. Huizar

Clerk of the Authority

Date: _____

“SCE”

**SOUTHERN CALIFORNIA EDISON
COMPANY**

Date: _____

By: _____

Name: Jill C. Anderson

Title: Executive Vice-President, Operations

**ORANGE COUNTY FIRE AUTHORITY
PROFESSIONAL SERVICES AGREEMENT**

THIS AGREEMENT FOR PROFESSIONAL SERVICES (“Agreement”) is made and entered into this ____ day of _____, 2023 by and between the Orange County Fire Authority, a public agency, hereinafter referred to as “OCFA”, and _____, hereinafter referred to as “Firm”. OCFA and Firm are sometimes individually referred to herein as a “Party” and collectively as the “Parties”.

RECITALS

WHEREAS, OCFA requires the services of a qualified firm to provide Aerial Firefighting Helitanker Services as requested in RFP SK2597, hereinafter referred to as “Project”; and

WHEREAS, Firm has submitted to OCFA a proposal dated April 23, 2023, incorporated herein by this reference (“Proposal”); and

WHEREAS, based on its experience and reputation, Firm is qualified to provide the necessary services for the Project and desires to provide such services; and

WHEREAS, OCFA desires to retain the services of Firm for the Project.

NOW, THEREFORE, in consideration of the promises and mutual agreements contained herein, OCFA agrees to employ and does hereby employ Firm and Firm agrees to provide professional services as follows:

AGREEMENT

1. PROFESSIONAL SERVICES

1.1 Scope of Services

In compliance with all terms and conditions of this Agreement, Firm shall provide those services specified in the Scope of Services, attached hereto as Exhibit “A”, which includes by reference and by addendum: (1) OCFA’s RFP2597 (2) Firm’s Proposal, and (3) any amendments, addendums, change orders, or modifications mutually agreed upon by the parties hereto (“Services” or “Work”). Firm warrants that all Services shall be performed in a competent, professional and satisfactory manner in accordance with all standards prevalent in the same profession in the State of California. Firm represents and warrants that it and all employees, subconsultants and subcontractors providing any Services pursuant to this Agreement shall have a sufficient skill and experience to perform the Services. All Services shall be completed to the reasonable satisfaction of the OCFA. In the event of any inconsistency between the terms contained in the Scope of Services,

and/or the terms set forth in the main body of this Agreement, the terms set forth in the main body of this Agreement and then the Scope of Services shall govern, in that order.

1.2 Compliance with Law

All Services rendered hereunder shall be provided in accordance with all laws, ordinances, resolutions, statutes, rules, and regulations of OCFA and any federal, state or local governmental agency of competent jurisdiction.

1.3 Licenses and Permits

Firm shall obtain at its sole cost and expense such licenses, permits and approvals as may be required by law for the performance of the Services required by this Agreement.

1.4 Familiarity with Work

By executing this Agreement, Firm warrants that Firm (a) has thoroughly investigated and considered the Work to be performed, (b) has investigated the site of the Work and become fully acquainted with the conditions there existing, (c) has carefully considered how the Work should be performed, and (d) fully understands the facilities, difficulties and restrictions attending performance of the Work under this Agreement. Should the Firm discover any latent or unknown conditions materially differing from those inherent in the Work or as represented by OCFA, Firm shall immediately inform OCFA of such fact and shall not proceed with any Work except at Firm's risk until written instructions are received from the Contract Officer.

1.5 Care of Work

Firm shall adopt and follow reasonable procedures and methods during the term of the Agreement to prevent loss or damage to materials, papers or other components of the work, and shall be responsible for all such damage until acceptance of the work by OCFA, except such loss or damages as may be caused by OCFA's own negligence.

1.6 Additional Services

Firm shall perform services in addition to those specified in the Scope of Services when directed to do so in writing by the OCFA Purchasing Manager, provided that Firm shall not be required to perform any additional services without compensation. Any additional compensation not exceeding fifteen percent (15%) of the agreement amount annually must be approved in writing by the OCFA Purchasing Manager. Any greater increase must be approved in writing by the Executive Committee of the OCFA Board of Directors.

2. TIME FOR COMPLETION

The time for completion of the Services to be performed by Firm is an essential condition of this Agreement. Firm shall prosecute regularly and diligently the work of this Agreement according to the schedules set forth in Firm's proposal. Firm shall not be accountable for delays in the progress of its work caused by any condition beyond its control and without the fault or negligence of Firm. Delays shall not entitle Firm to any additional compensation regardless of the party responsible for the delay.

3. COMPENSATION OF FIRM

3.1 Compensation of Firm

For the Services rendered pursuant to this Agreement, Firm shall be compensated and reimbursed, in accordance with the pricing set forth in Exhibit "A".

3.2 Method of Payment

In any month in which Firm wishes to receive payment, Firm shall no later than the first working day of such month, submit to OCFA in the form approved by OCFA's Finance Division Manager, an invoice for Services rendered prior to the date of the invoice. OCFA shall pay Firm for all expenses stated thereon which are approved by OCFA consistent with this Agreement, within thirty (30) days of receipt of Firm's invoice.

3.3 Changes

In the event any change or changes in the work is requested by OCFA, the parties hereto shall execute an addendum to this Agreement, setting forth with particularity all terms of such addendum, including, but not limited to, any additional fees. Addenda may be entered into:

A. To provide for revisions or modifications to documents or other work product or work when documents or other work product or work is required by the enactment or revision of law subsequent to the preparation of any documents, other work product or work;

B. To provide for additional services not included in this Agreement or not customarily furnished in accordance with generally accepted practice in Firm's profession.

3.4 Appropriations

This Agreement is subject to and contingent upon funds being appropriated therefore by the OCFA Board of Directors for each fiscal year covered by the Agreement. If such appropriations are not made, this Agreement shall automatically terminate without penalty to OCFA.

4. PERFORMANCE SCHEDULE

4.1 Time of Essence

Time is of the essence in the performance of this Agreement.

4.2 Schedule of Performance

All Services rendered pursuant to this Agreement shall be performed within the time periods prescribed in Firm's Proposal, attached hereto as Exhibit "A". The extension of any time period specified in Exhibit "A" must be approved in writing by the Contract Officer.

4.3 Force Majeure

The time for performance of Services to be rendered pursuant to this Agreement may be extended because of any delays due to unforeseeable causes beyond the control and without the fault or negligence of the Firm, including, but not restricted to, acts of God or of a public enemy, acts of the government, fires, earthquakes, floods, epidemic, quarantine restrictions, riots, strikes, freight embargoes, and unusually severe weather if the Firm shall within ten (10) days of the commencement of such condition notify the Contract Officer who shall thereupon ascertain the facts and the extent of any necessary delay, and extend the time for performing the Services for the period of the enforced delay when and if in the Contract Officer's judgment such delay is justified, and the Contract Officer's determination shall be final and conclusive upon the parties to this Agreement.

4.4 Term

This Agreement shall continue in full force and effect for one year (initial term) unless earlier terminated in accordance with Sections 8.5 or 8.6 of this Agreement. The contract may be renewed up to four (4) additional one-year terms upon mutual written agreement between OCFA and the Firm.

5. COORDINATION OF WORK

5.1 Representative of Firm

The following principal of the Firm is hereby designated as being the principal and representative of Firm authorized to act in its behalf with respect to the work specified herein and make all decisions in connection therewith: Britton Coulson, President and COO.

It is expressly understood that the experience, knowledge, capability and reputation of the foregoing principal is a substantial inducement for OCFA to enter into this Agreement. Therefore, the foregoing principal shall be responsible during the term of this Agreement for directing all activities of Firm and devoting sufficient time to personally supervise the Services hereunder. The foregoing principal may not be changed by Firm without the express written approval of OCFA.

5.2 Contract Officer

The Contract Officer shall be, Assistant Chief Tim Perkins, unless otherwise designated in writing by OCFA. It shall be the Firm's responsibility to keep the Contract Officer fully informed of the progress of the performance of the Services and Firm shall refer any decisions that must be made by OCFA to the Contract Officer. Unless otherwise specified herein, any approval of OCFA required hereunder shall mean the approval of the Contract Officer.

5.3 Prohibition Against Subcontracting or Assignment

5.3.1 No Subcontracting Without Prior Approval. The experience, knowledge, capability and reputation of Firm, its principals and employees, and the Firm Representative were a substantial inducement for OCFA to enter into this Agreement. Therefore, Firm shall not contract with any other entity to perform in whole or in part the Services required hereunder without the express written approval of OCFA.

5.3.2 Provisions in the Event Subcontractor(s) Are Authorized. If Firm is authorized to subcontract any part of the Services as provided in Section 5.3.1, Firm shall be responsible to OCFA for the acts and omissions of its subcontractor(s) and subconsultant(s) in the same manner as it is for persons directly employed. For purposes of this Agreement, all persons engaged in the performance of Services will be considered employees of Firm. OCFA will deal directly with and will make all payments to Firm. Nothing contained in this Agreement shall create any contractual relationships between any subcontractor and OCFA. Firm shall ensure that all subcontractor insurance requirements set forth in Section 6 below (including its subsections) are complied with prior to commencement of Services by each subcontractor.

5.3.2.1 Withholding Payment for Non-Authorized Subcontractors. OCFA shall have the right to withhold payment from Firm for Services performed by any subcontractor or subconsultant performing Services but not authorized in writing by OCFA, or regarding which the insurance or other requirements under this Agreement have not been satisfied.

5.3.3 Assignments. Neither this Agreement nor any interest herein may be assigned, transferred, conveyed, hypothecated, or encumbered voluntarily or by operation of law, whether for the benefit of creditors or otherwise, without the prior written approval of OCFA. Transfers restricted hereunder shall include the transfer to any person or group of persons acting in concert of more than twenty five percent (25%) of the present ownership and/or control of Firm, taking all transfers into account on a cumulative basis. In the event of any such unapproved transfer, including any bankruptcy proceeding, this Agreement shall be void. No approved transfer shall release Firm or any surety of Firm from any liability hereunder without the express written consent of OCFA.

5.4 Independent Contractor

5.4.1 The legal relationship between the Parties is that of an independent contractor, and nothing herein shall be deemed to make Contractor, or any of its personnel, an OCFA employee. During the performance of this Agreement, Firm and its officers, employees, and agents shall act in an independent capacity and shall not act as OCFA officers or employees. Firm will determine the means, methods and details of performing the Services subject to the requirements of this Agreement. The personnel performing the Services under this Agreement on behalf of Firm shall at all times be under Firm's exclusive direction and control. Neither OCFA nor any of its officials, officers, employees, agents or volunteers shall have control over the conduct of Firm or any of its officers, employees, or agents, except as set forth in this Agreement. Firm, its officers, employees or agents, shall not maintain a permanent office or fixed business location at OCFA's offices. OCFA shall have no voice in the selection, discharge, supervision, or control of Firm's officers, employees, representatives or agents or in fixing their number, compensation, or hours of service. Firm shall pay all wages, salaries, and other amounts due its employees in connection with the performance of Services under this Agreement and shall be responsible for all reports and obligations respecting them, including but not limited to social security income tax withholding, unemployment compensation, workers' compensation, and other similar matters. OCFA shall not in any way or for any purpose be deemed to be a partner of Firm in its business or otherwise a joint venturer or a member of any joint enterprise with Firm.

5.4.2 Firm shall not incur or have the power to incur any debt, obligation, or liability against OCFA, or bind OCFA in any manner.

5.4.3 No OCFA benefits shall be available to Firm, its officers, employees, or agents, in connection with the performance of any Work or Services under this Agreement. Except for professional fees paid to Firm as provided for in this

Agreement, OCFA shall not pay salaries, wages, or other compensation to Firm for the performance of any Work or Services under this Agreement. OCFA shall not be liable for compensation or indemnification to Firm, its officers, employees, or agents, for injury or sickness arising out of performing any Work or Services hereunder. If for any reason any court or governmental agency determines that the OCFA has financial obligations, other than pursuant to Section 2 herein, of any nature relating to salary, taxes, or benefits of Firm's officers, employees, representatives, agents, or subconsultants or subcontractors, Firm shall defend, indemnify, and hold harmless OCFA from and against all such financial obligations.

5.6 Employee Retirement System Eligibility Indemnification

5.6.1 In the event that Firm or any employee, agent, or subcontractor of Firm providing any Work or Services under this Agreement claims or is determined by a court of competent jurisdiction to be eligible for enrollment in an employee retirement system as an employee of the OCFA, Firm shall indemnify, defend, and hold harmless OCFA against: (1) all such claim(s) and determination(s); (2) for the payment of any employee and/or employer contributions for employee retirement system benefits on behalf of Firm or its employees, agents or subcontractors; and (3) the payment of any penalties and interest on such contributions which would otherwise be the responsibility of the OCFA.

5.6.2 Notwithstanding any other agency, state or federal policy, rule, regulation, law or ordinance to the contrary, Contractor and any of its employees, agents, and subcontractors providing any Work or Services under this Agreement shall not qualify for or become entitled to, and hereby agree to waive any claims to, any compensation, benefit, or any incident of employment by OCFA, including but not limited to eligibility to enroll in PERS as an employee of OCFA and entitlement to any contribution to be paid by OCFA for employer contribution and/or employee contributions for PERS benefits.

6. INSURANCE AND INDEMNIFICATION

6.1 Compliance with Insurance Requirements. Firm shall obtain, maintain, and keep in full force and effect during the term of this Agreement, at its sole cost and expense, and in a form and content satisfactory to OCFA, all insurance required under this section. Firm shall not commence any Services under this Agreement unless and until it has provided evidence satisfactory to OCFA that it has secured all insurance required under this section. If Firm's existing insurance policies do not meet the insurance requirements set forth herein, Firm agrees to amend, supplement or endorse the policies to meet all requirements herein.

6.2 Types of Insurance Required. Without limiting the indemnity provisions set forth in this Agreement, and in addition to the insurance requirements stated in Exhibit "A", Firm shall obtain and maintain in full force and effect during the term of this Agreement, including any extension thereof, the following policies of insurance:

6.2.1 Professional Liability/Technology Errors and Omissions Insurance ("PLI"). Firm shall obtain and maintain PLI insurance applicable to each licensed profession practiced by Firm. Firm shall maintain PLI insurance with per-claim and aggregate limits no lower than one million dollars (\$1,000,000.00) each occurrence and two million dollars (\$2,000,000.00) aggregate. Covered professional services shall specifically include all Services to be performed under the Agreement and the policy shall be endorsed to delete any exclusions that may exclude coverage for claims within the minimum PLI Limits for the Services to be performed under this Agreement.

6.2.1.1 The PLI policy shall be endorsed to delete any Contractual Liability Exclusion. The PLI shall include contractual liability coverage applicable to this Agreement. The policy must "pay on behalf of" the insured, and include a provision establishing the insurer's duty to defend the insured.

6.2.1.2 If the PLI policy of insurance is written on a "claims-made" basis, the policy shall be continued in full force and effect at all times during the term of this Agreement, and for a period of three (3) years from the date of the completion of all Services provided hereunder (the "PLI Coverage Period"). If any PLI policy is replaced, cancelled, non-renewed, discontinued, or otherwise terminated, or if the limits of a PLI policy are reduced or the available coverage depleted below the required minimum coverage amounts for any reason during the PLI Coverage Period, Firm shall immediately obtain replacement PLI coverage meeting the requirements of this Section 6.2.1. Such replacement coverage shall satisfy all requirements herein, and shall include coverage for the prior acts or omissions of Firm during the time period during which any Services were performed. The coverage shall be evidenced by either a new policy evidencing no gap in coverage, or by obtaining separate extended "tail" coverage with the present or new carrier or other insurance arrangements providing for complete coverage, either of which shall be subject to the written approval by the OCFA.

6.2.1.3 If the PLI policy is written on an "occurrence" basis, the policy shall be continued in full force and effect during the term of this Agreement, or until completion of the Services provided for in this Agreement, whichever is later. In the event of termination of the PLI policy during this period, new coverage shall immediately be obtained, and written evidence of the policy shall be immediately provided to OCFA, to ensure PLI coverage during the entire course of performing the Services.

6.2.1.4 Firm shall not perform any Services at any time during which required types or amounts of PLI insurance are not in effect, and OCFA shall have no obligation to pay Firm for Services performed while required PLI insurance is not in effect.

6.2.2 Commercial General Liability Insurance. Firm shall obtain and maintain, in full force and effect throughout the term of this Agreement, Insurance Services Office (ISO) Form CG 00 01 covering CGL on an "occurrence" basis, including property damage, bodily injury and personal & advertising injury with limits no less than

one million dollars (\$1,000,000.00) per occurrence and two million dollars (\$2,000,000.00) aggregate. If a general aggregate limit applies, the general aggregate limit shall be no less than two million dollars (\$2,000,000.00). Coverage for products and completed operations is required with limits no less than two million dollars (\$2,000,000.00) aggregate. CGL insurance shall be provided on an occurrence-based coverage form; a "claims made" CGL policy is not acceptable. Firm shall maintain CGL insurance with per-claim, aggregate and products and operations completed limits no lower than the minimum CGL coverage limits set forth above. Defense costs shall be paid in addition to the limits. The policy shall contain no endorsements or provisions limiting coverage for any of the following: (1) contractual liability; (2) cross liability exclusion for claims or suits by one insured against another; or (3) any other exclusion contrary to this Agreement.

6.2.3 Automobile Liability Insurance. Firm shall obtain and maintain, in full force and effect throughout the term of this Agreement, a policy of Automobile liability insurance written on a per occurrence basis with limits of at least one million dollars (\$1,000,000.00) combined limit for each occurrence covering bodily injury, disease and property damage. Defense costs shall be paid in addition to the policy limits. The policy shall specifically include coverage for owned, non-owned, leased, and hired automobiles, and be endorsed to eliminate any exclusion applicable to any of them.

6.2.4 Workers' Compensation Insurance. Firm shall obtain and maintain, in full force and effect throughout the term of this Agreement, a policy of Workers' Compensation Insurance with limits no less than one million dollars (\$1,000,000.00), and in compliance with all other statutory requirements applicable in the State of California. Firm hereby waives on its own behalf, and shall obtain an endorsement from its workers' compensation insurer waiving on the insurance company's behalf, all rights of subrogation against the OCFA, its board members, officials, officers, employees, agents and volunteers.

6.2.4.1 If subconsultants or subcontractors are used, Firm shall require each of its subconsultants and subcontractors, if any, to waive all rights of subrogation, and to obtain endorsements from the subconsultants'/subcontractors' workers' compensation insurers waiving all rights of subrogation, against the OCFA, its board members, officials, officers, employees, agents and volunteers.

6.2.4.2 Firm and each of its subconsultants and subcontractors shall also maintain, in full force and effect throughout the term of this Agreement, Employer's Liability Insurance with limits of at least one million dollars (\$1,000,000.00) per injury or illness.

6.3 Acceptability of Insurers. Each insurance policy required by this section shall be issued by a licensed company authorized to transact business by the Department of Insurance for the State of California with a current rating of A-VII or better (if an admitted carrier), or a current rating of A:X or better (if offered by a non-admitted insurer listed on the State of California List of Approved Surplus Line Insurers (LASLI)),

by the latest edition of A.M. Best's Key Rating Guide, except that the OCFA will accept workers' compensation insurance from the State Compensation Fund. In the event the OCFA determines that the Services to be performed under this Agreement creates an increased or decreased risk of loss to the OCFA, the Firm agrees that the minimum limits of the insurance policies may be changed accordingly upon receipt of written notice from the OCFA.

6.3.1 Firm shall immediately replace any insurer whose A.M. Best rating drops below the levels specified herein with an insurer that meets the minimum requirements herein.

6.4 Specific Insurance Provisions and Endorsements. Required insurance policies shall not be in compliance if they include any limiting provision or endorsement that has not been submitted to the OCFA for written approval. Required insurance policies shall contain the following provisions, or Firm shall provide endorsements on forms approved by the OCFA to add the following provisions to the insurance policies:

6.4.1 CGL and Auto Liability Endorsements. The policy or policies of insurance required by this Agreement for CGL and Automobile Liability Insurance shall be endorsed as follows:

6.4.1.1 Additional Insured: The OCFA, its board members, officials, officers, employees, agents and volunteers, shall be additional insureds; and

6.4.1.1.1 Additional Insured Endorsements: Additional insured endorsements shall not (1) be restricted to "ongoing operations", (2) exclude "contractual liability", (3) restrict coverage to "sole" liability of Firm, (4) contain any other exclusions contrary to the Agreement; or (5) contain special limitations on the scope of protection afforded to additional insureds.

6.4.1.2 Primary, Non-Contributing. Each CGL and Auto Liability insurance policy shall be endorsed to be primary and any other insurance, deductible, or self-insurance maintained by the OCFA, its board members, officials, officers, employees, agents or volunteers, shall not contribute with the primary insurance.

6.4.2 Notice of Cancellation: Each policy of any type shall be endorsed to provide that coverage shall not be suspended, voided, cancelled, or modified, or reduced in coverage or in limits, except after thirty (30) days prior written notice has been provided to the OCFA. Notwithstanding the foregoing, if coverage is to be suspended, voided, or cancelled because of Firm's failure to pay the insurance premium, the notice provided by the insurer to OCFA shall be by not less than ten (10) days prior written notice. (A statement that notice will be provided "in accordance with the policy terms" or words to that effect is inadequate to meet the requirements of this Section).

6.4.2.1 Pre-Payment of Policy Premium. If for any reason an insurer declines to issue an endorsement certifying that it will notify OCFA in accordance with section 6.4.2, Firm shall either obtain insurance from another insurer who will provide the required notice endorsement or shall provide evidence satisfactory to OCFA that the entire policy premium for the full term of that policy has been pre-paid such that the risk of non-payment of premiums during the term of the policy has been eliminated.

6.4.3 ACORD Forms Will Not Be Accepted in Lieu of Endorsements. By executing this Agreement, Firm certifies that it has – prior to execution of this Agreement - confirmed that its insurance company will issue each of the endorsements required by this Agreement. Firm also certifies that it understands that "ACORD" Certificate of Liability Insurance forms will not be accepted in lieu of required endorsements.

6.5 Deductibles and Self-Insured Retentions. Any deductible or self-insured retention must be approved in writing by the OCFA in advance. The decision whether to approve or withhold approval of a deductible or self-insured retention shall be made by the OCFA in the OCFA's sole and absolute discretion. (Firm may request pre-approval from OCFA of a deductible or self-insured retention prior to submitting Firm's Proposal).

6.6 Waiver of Subrogation. All policies of Commercial General Liability and Automobile Liability Insurance shall contain or be endorsed to waive subrogation against the OCFA, its officials, officers, employees, agents and volunteers, or shall specifically allow Firm or others providing insurance evidence in compliance with the requirements set forth in this section to waive their right to recovery prior to a loss. Firm hereby agrees to waive its own right of subrogation against the OCFA, its officials, officers, employees, agents and volunteers.

6.6.1 Waivers of Subrogation: Subconsultants and Subcontractors. If OCFA approves the use of subconsultants or subcontractors for the performance of any portion of the Services, then Firm shall obtain from each subconsultant and subcontractor, and make available to OCFA upon request, written express waivers by each subconsultant and subcontractor of the right of subrogation against the OCFA, its officials, officers, employees, agents and volunteers, and policy endorsements of each of its subconsultants' and subcontractors' insurance policies waiving any rights of subrogation against the OCFA, its officials, officers, employees, agents and volunteers insurer. All such waivers and endorsements shall be obtained prior to commencement of any Services by each subconsultant or subcontractor.

6.7 Evidence of Coverage. Concurrently with the execution of the Agreement, Firm shall deliver certificates of insurance together with original endorsements affecting each of the insurance policies required to be maintained by Firm by this Section 5. Firm shall promptly furnish, at OCFA's request, copies of actual policies

including all declaration pages, endorsements, exclusions and any other policy documents OCFA requires to verify coverage.

6.7.1 Required insurance policies shall not be in compliance if they include any limiting provision or endorsement that has not been submitted to the OCFA for written approval.

6.7.2 Authorized Signatures. The certificates of insurance and original endorsements for each insurance policy shall be signed by a person authorized by that insurer to bind coverage on its behalf.

6.7.3 Renewal/Replacement Policies. At least fifteen (15) days prior to the expiration of any policy required by this Agreement, evidence of insurance showing that such insurance coverage has been renewed or extended shall be filed with the OCFA. If such coverage is cancelled or reduced and not replaced immediately so as to avoid a lapse in the required coverage, Firm shall, within ten (10) days after receipt of written notice of such cancellation or reduction of coverage, file with the OCFA evidence of insurance showing that the required insurance has been reinstated or has been provided through another insurance company or companies meeting all requirements of this Agreement.

6.8 Requirements Not Limiting. Requirement of specific coverage or minimum limits contained in this section are not intended as a limitation on coverage, limits, or other requirements, or a waiver of any coverage normally provided by any insurance. The insurance obligations under this Agreement shall be: (1) all the insurance coverage and/or limits carried by or available to Firm; or (2) the minimum insurance coverage requirements and/or limits shown in this Agreement; whichever is greater. Any insurance proceeds in excess of or broader than the minimum required coverage and/or minimum required limits, which are applicable to a given loss, shall be available to the OCFA. No representation is made that the minimum insurance requirements of this Agreement are sufficient to cover the obligations of Firm under this Agreement. Nothing in this section shall be construed as limiting in any way the indemnification provision contained in this Agreement, or the extent to which Consultant may be held responsible for losses of any type or amount.

6.9 Enforcement of Agreement (Non-Estoppel). Firm acknowledges and agrees that actual or alleged failure on the part of the OCFA to inform Firm of any non-compliance with any of the insurance requirements set forth in this Agreement imposes no additional obligation on the OCFA nor does it waive any rights hereunder.

6.10 Insurance for Subconsultants. If OCFA approves the use of subconsultants or subcontractors for the performance of any portion of the Services, then Firm shall be responsible for causing each approved subconsultant and subcontractor to procure and maintain insurance in the same types and amounts required for Firm, and in full compliance with the insurance requirements set forth in this Agreement, except as otherwise authorized in writing by the Contract Manager.

6.10.1 Delivery of Evidence of Subcontractor Insurance. Upon request of OCFA, Firm shall deliver to OCFA all certificates of insurance and endorsements required from subcontractors and subconsultants. (Note: Firm's duty to obtain all required insurance for subcontractors and subconsultants required under this Agreement applies whether or not OCFA requests delivery of evidence of such coverage.)

6.11 Other Insurance Requirements. The following terms and conditions shall apply to the insurance policies required of Firm and its subconsultants and subcontractors, if any, pursuant to this Agreement:

6.11.1 Firm shall provide immediate written notice to OCFA if (1) any of the insurance policies required herein are terminated, cancelled, suspended, or non-renewed (2) the limits of any of the insurance coverages required herein are reduced; (3) any required insurance coverage is reduced below the required minimum limits through claims or otherwise, or (4) the deductible or self-insured retention is increased.

6.11.2 All insurance coverage and limits required under this Agreement are intended to apply to each insured, including additional insureds, against whom a claim is made or suit is brought to the full extent of the policies. Nothing contained in this Agreement or any other agreement relating to the OCFA or its operations shall limit the application of such insurance coverage.

6.11.3 None of the insurance coverages required herein will be in compliance with the requirements of this section if they include any limiting endorsement which substantially impairs the coverages set forth herein (e.g., elimination of contractual liability or reduction of discovery period), unless the endorsement has first been submitted to the OCFA and approved in writing.

6.11.4 Certificates of insurance will not be accepted in lieu of required endorsements, and submittal of certificates without required endorsements may delay the Project. It is Firm's obligation to ensure timely compliance with all insurance submittal requirements as provided herein and Firm agrees to reimburse OCFA for any losses resulting from its failure, or its subconsultants' or subcontractors' failure, to timely comply with the requirements of this Agreement.

6.11.5 Firm agrees to ensure that subconsultants and subcontractors, if any, and any other parties involved with the Project who are brought onto or involved in the Project by Firm, provide the same minimum insurance coverage required of Firm. Firm agrees to monitor and review all such coverage and assumes all responsibility for ensuring that such coverage is provided in conformity with the requirements of this section. Firm agrees that upon request, all agreements with, and evidence of insurance from, subconsultants and subcontractors and others engaged in performing any Services will be submitted to the OCFA for review.

6.11.6 Firm agrees to provide immediate written notice to OCFA of any claim, demand or loss arising out of the Services performed under this Agreement and for any other claim, demand or loss which may reduce the insurance available to an amount less than required by this Agreement.

6.12 Indemnification.

To the fullest extent permitted by law, Firm shall defend (at Firm's sole cost and expense with legal counsel reasonably acceptable to OCFA), indemnify and hold the OCFA, its board members, officials, officers, employees, agents and volunteers, free and harmless from any and all claims, demands, orders, causes of action, costs, expenses, liabilities, losses, penalties, judgments, arbitration awards, settlements, damages or injuries of any kind, in law or in equity, including but not limited to property or persons, including wrongful death, (collectively "Claims") in any manner arising out of, pertaining to, related to, or incident to any alleged acts, errors or omissions, or willful misconduct of Firm, its officers, directors, employees, subconsultants, subcontractors, agents or invitees in connection with performance under this Agreement, or in any manner arising out of, pertaining to, related to, or incident to an alleged breach of this Agreement, including without limitation the payment of all consequential damages, expert witness fees and attorneys' fees and other related costs and expenses.

Notwithstanding the foregoing, and only to the extent that the Services performed by Firm are subject to California Civil Code Section 2782.8, the above indemnity shall be limited, to the extent required by Civil Code Section 2782.8, to claims that arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the Firm.

Under no circumstances shall the insurance requirements and limits set forth in this Agreement be construed to limit Firm's indemnification obligation or other liability hereunder. Notwithstanding the foregoing, such obligation to defend, hold harmless and indemnify the OCFA, its board members officials, officers, employees, agents and volunteers, shall not apply to the extent that such Claims are caused by the sole negligence or willful misconduct of that indemnified party.

7. RECORDS AND REPORTS

7.1 Reports

Firm shall periodically prepare and submit to the Contract Officer such reports concerning the performance of the Services required by this Agreement as the Contract Officer shall require.

7.2 Records

Firm shall keep such books and records as shall be necessary to properly perform the Services required by this Agreement and enable the Contract Officer to

evaluate the performance of such Services. Except as provided in Section 7.5, the Contract Officer shall have full and free access to such books and records at all reasonable times, including the right to inspect, copy, audit and make records and transcripts from such records.

7.3 Ownership of Documents

Except as provided in Section 7.5, all drawings, specifications, reports, records, documents and other materials prepared by Firm in the performance of this Agreement shall be the property of OCFA and shall be delivered to OCFA upon request of the Contract Officer or upon the termination of this Agreement, and Firm shall have no claim for further employment or additional compensation as a result of the exercise by OCFA of its full rights or ownership of the documents and materials hereunder. Firm may retain copies of such documents for its own use. Firm shall have an unrestricted right to use the concepts embodied therein.

7.4 Release of Documents

All drawings, specifications, reports, records, documents and other materials prepared by Firm in the performance of Services under this Agreement shall not be released publicly without the prior written approval of the Contract Officer.

7.5 Confidential Materials

Notwithstanding anything to the contrary in this Agreement, the Firm shall be the sole owner of Firm's work papers and of any other documents, data or information which are required to be maintained confidential from OCFA by one or more rules of professional conduct governing the Firm's profession(s) (collectively, the "Confidential Materials"). Neither the OCFA nor the Contract Officer shall have access to the Confidential Materials except as may otherwise be required by order issued by a court of competent jurisdiction.

8. ENFORCEMENT OF AGREEMENT

8.1 California Law

This Agreement shall be construed and interpreted both as to validity and to performance of the parties in accordance with the laws of the State of California. Legal actions concerning any dispute, claim or matter arising out of or in relation to this Agreement shall be instituted in the Superior Court of the County of Orange, State of California, or any other appropriate court in such county, and Firm covenants and agrees to submit to the personal jurisdiction of such court in the event of such action.

8.2 Waiver

No delay or omission in the exercise of any right or remedy of a non-defaulting party on any default shall impair such right or remedy or be construed as a waiver. No consent or approval of OCFA shall be deemed to waive or render unnecessary OCFA's consent to or approval of any subsequent act of Firm. Any waiver by either party of any default must be in writing and shall not be a waiver of any other default concerning the same or any other provision of this Agreement.

8.3 Rights and Remedies are Cumulative

Except with respect to rights and remedies expressly declared to be exclusive in this Agreement, the rights and remedies of the parties are cumulative and the exercise by either party of one or more of such rights or remedies shall not preclude the exercise by it, at the same or different times, of any other rights or remedies for the same default or any other default by the other party.

8.4 Legal Action

In addition to any other rights or remedies, either party may take legal action, in law or in equity, to cure, correct or remedy any default, to recover damages for any default, to compel specific performance of this Agreement, to obtain injunctive relief, a declaratory judgment, or any other remedy consistent with the purposes of this Agreement.

8.5 Termination Prior to Expiration of Term

OCFA reserves the right to terminate this Agreement at any time, with or without cause, upon thirty (30) days written notice to Firm, except that where termination is due to the fault of the Firm and constitutes an immediate danger to health, safety and general welfare, the period of notice shall be such shorter time as may be appropriate. Upon receipt of the notice of termination, Firm shall immediately cease all Services hereunder except such as may be specifically approved by the Contract Officer. Firm shall be entitled to compensation for all Services rendered prior to receipt of the notice of termination and for any Services authorized by the Contract Officer thereafter.

Firm may terminate this Agreement, with or without cause, upon thirty (30) days written notice to OCFA.

8.6 Termination for Default of Firm

If termination is due to the failure of the Firm to fulfill its obligations under this Agreement, OCFA may take over the work and prosecute the same to completion by contract or otherwise, and the Firm shall be liable to the extent that the total cost for completion of the Services required hereunder exceeds the compensation herein stipulated, provided that OCFA shall use reasonable efforts to mitigate damages, and

OCFA may withhold any payments to the Firm for the purpose of set-off or partial payment of the amounts owed to OCFA.

8.7 Attorneys' Fees

If either party commences an action against the other party arising out of or in connection with this Agreement or its subject matter, the prevailing party shall be entitled to recover reasonable attorneys' fees and costs of suit from the losing party.

9. OCFA OFFICERS AND EMPLOYEES; NON-DISCRIMINATION

9.1 Non-Liability of OCFA Officers and Employees

No officer or employee of OCFA shall be personally liable to the Firm, or any successor-in-interest, in the event of any default or breach by OCFA or for any amount which may become due to the Firm or its successor, or for breach of any obligation of the terms of this Agreement.

9.2 Covenant Against Discrimination

Firm covenants that, by and for itself, its heirs, executors, assigns, and all persons claiming under or through them, that there shall be no discrimination or segregation in the performance of or in connection with this Agreement regarding any person or group of persons on account of race, color, creed, religion, sex, marital status, national origin, or ancestry. Firm shall take affirmative action to insure that applicants and employees are treated without regard to their race, color, creed, religion, sex, marital status, national origin, or ancestry.

10. MISCELLANEOUS PROVISIONS

10.1 Confidentiality

Information obtained by Firm in the performance of this Agreement shall be treated as strictly confidential and shall not be used by Firm for any purpose other than the performance of this Agreement without the written consent of OCFA.

10.2 Notice

Any notice, demand, request, consent, approval, or communication either party desires or is required to give to the other party or any other person shall be in writing and either served personally or sent by pre-paid, first-class mail to the address set forth below. Either party may change its address by notifying the other party of the change of address in writing. Notice shall be deemed communicated forty-eight (48) hours from the time of mailing if mailed as provided in this Section.

Orange County Fire Authority
Attention: Sara Kennedy
1 Fire Authority Road
Irvine, CA 92602

WITH COPY TO:
David E. Kendig, General Counsel
Woodruff, Spradlin & Smart
555 Anton Blvd. Suite 1200
Costa Mesa, CA 92626

To Firm: Coulson Aviation (USA) Inc.
Attention: Britton Coulson
1200 NW Naito Parkway, Suite 200
Portland, OR 97209

10.2 Integrated Agreement

This Agreement contains all of the agreements of the parties and cannot be amended or modified except by written agreement.

10.3 Amendment

This Agreement may be amended at any time by the mutual consent of the parties by an instrument in writing.

10.4 Severability

In the event that any one or more of the phrases, sentences, clauses, paragraphs, or sections contained in this Agreement shall be declared invalid or unenforceable by valid judgment or decree of a court of competent jurisdiction, such invalidity or unenforceability shall not affect any of the remaining phrases, sentences, clauses, paragraphs, or sections of this Agreement, which shall be interpreted to carry out the intent of the parties hereunder.

10.5 Corporate Authority

The persons executing this Agreement on behalf of the parties hereto warrant that they are duly authorized to execute this Agreement on behalf of said parties and that by so executing this Agreement the parties hereto are formally bound to the provisions of this Agreement.

[Signatures on Following Page]

IN WITNESS WHEREOF, the parties have executed this Agreement as of the dates stated below.

“OCFA”

ORANGE COUNTY FIRE AUTHORITY

Date: _____

By: _____

Sara Kennedy, CPPB
Purchasing Division Manager

APPROVED AS TO FORM.

ATTEST:

By: _____

David E. Kendig
General Counsel

Maria D. Huizar
Clerk of the Board

Date: _____

“FIRM”

COULSON AVIATION (USA) INC

Date: _____

By: _____

Name:
Title:

Date: _____

By: _____

Name:
Title:

EXHIBIT "A"
Scope Of Services

A.1 PROJECT DESCRIPTION

A.1.1 BACKGROUND

The mission of the QRF is to provide a supplemental aviation force to departments or agencies tasked with wildland fire control in their respective jurisdiction. The number one principle behind the QRF is to keep fires small by attacking them with a concentration of three large helitankers during initial attack, with the capability of sustaining the attack through the first night on fires with high growth potential. The QRF is a combination of aerial firefighting resources preassembled and organized to work together as a specialized unit twenty-four hours a day with the ability to safely drop either water or fire retardant both night and day from Very Large Helitankers (VLHT) and Large Helitankers (LHT). The QRF is organized and dispatched as a complete aviation suppression package with everything it needs to operate at full capacity without having to rely on logistical support from the incident organization.

The Operational Priorities of QRF:

- a) The primary goal of the QRF is to help extinguish new wildfires during initial attack.
- b) A secondary goal is to maintain a sustained attack throughout the first night of an emerging wildfire.
- c) The QRF may also be useful in extremis on part of an established large fire that is making an aggressive run threatening human life, residential structures, or other values at risk.

The QRF aircraft are positioned in the three host counties, ORC, LAC and VNC. When dispatched they are expected to quickly consolidate into a package and operate as an Aerial Task Force.

QRF contract aircraft and aircrews are interagency carded for day/night aerial suppression operations and are made up of the following resources:

- One (1) Type 1, ATGS Platform (rotary) / Intelligence & Information Gathering Helicopter
- Three (3) Type 1, 3,000-gallon, CH-47 (or equivalent) Very-Large Helitankers
- One (1) Type 1, 1,000-gallon, S-61 (or equivalent) Helitanker to be utilized as a replacement aircraft during periods of short-term unavailability of the OCFA CH-47
- One (1) Mobile Retardant Base
- Task Force Leader (Qualified as both ATGS & HLCO)
- Program Manager

The multi-helitanker QRF with its own fuel transports, maintenance support, intelligence, and supervision capabilities, can assemble, and move quickly delivering enough suppression power to be decisive during initial attack. The QRF Aerial Task Force includes a self-contained mobile retardant base (MRB) and enough product to mix 88,000 gallons of 259-Fx retardant before resupply becomes necessary. Rapidly positioning an MRB at a strategic location close to the fire reduces "dash" time (hover fill to retardant application) which will significantly increase retardant rates of delivery Mobile Retardant Base and support equipment will respond with all requests for the QRF Aerial Task Force.

A Program Manager is available 7-days a week, 24-hours a day to assist with extended attack deployments. All QRF resources and crews are available for immediate response 7-days a week, 24-hours a day. OCFA, QRF Task Force Leaders, are NWCG 310-1 qualified as both ATGS & HLCO. All cadre members have extensive career experience as ATGS & HLCO, including night operations. The 2022 NWCG Standards for Aerial Supervision (PMS505), 2019 NWCG Standards for Helicopter Operations (PMS510) and the 2022 Interagency Standards for Fire and Fire Aviation Operations (NFES 2724) provide the framework for the QRF.

Host agency Fire Chiefs retain the right to recall the QRF at any time for any reason. SCE is not responsible for operational control of the aircraft or the QRF program.

Requests for the QRF Aerial Task Force, to wildland fires outside the SCE service territory, that represent a clear and present danger to life and property will be evaluated on a case-by-case basis with the final decision made by the three host agency fire chiefs or their designee.

QRF host agencies (ORC, LAC & VNC) manage and operate their assigned aircraft consistent with agency owned/operated aircraft. QRF contract aircraft are qualified as “public aircraft operations (PAO) use. When a request for the QRF is dispatched, all QRF resources will be assigned to operate as part of the QRF Aerial Task Force. Requests for individual QRF resources will in general, not be honored. However, it there could be deviations on a case-by-case basis if agreed upon by the three host agency fire chiefs. Program funding is based on all QRF resources responding as a Task Force. Requests for next burning period use will be evaluated on a case-by-case basis. The Program Manager is the primary point-of-contact during QRF mobilization and demobilization activities.

The three host counties (ORC, LAC & VNC) may respond their individual QRF contract aircraft on initial attack within their own counties. QRF host agencies (ORC, LAC & VNC) provide daily Helicopter Manager (HMGB) staffing for Type 1 helitankers assigned to extended attack incidents. The HMGB’s shall adhere to standard Check-in and DEMOB procedures for the IMT. In addition to carrying out HMGB duties for the incident, HMGB’s coordinate their activities with the QRF Program Manager. When assigned as an Aerial Task Force, it is the host agencies expectation that the QRF “agency” aircraft be utilized consistent with agency owned aircraft and not placed into rotation with federal or state wildland fire agency exclusive-use or call-when-needed contract aircraft.

QRF contract aircraft provider must staff with aircrews having significant experience flying Type 1 helitankers at night, while aided by night-vision-goggles. QRF recognizes FIRESCOPE ICS-800 Night Flying Guidelines.

All QRF aircraft will communicate via VHF FM & AM. Data transmitted by the ATGS platform will utilize LTE FirstNet Modem.

A.1.2 2022 QRF PROGRAM LOGISTICS

A.1.2.1The aircraft will be available twenty-four hours per day for one hundred sixty-five consecutive days without interruption.

A.1.2.2The Orange County aircraft will be fully operated and maintained at the designated base.

A.1.2.3It is expected that the Firm will fully cooperate with the two other QRF Aerial Task Force host counties and their respective QRF contract aircraft providers and related personnel, officers and/or agents.

A.22022 QRF PROGRAM MINIMUM REQUIREMENTS

A.2.1 OPERATOR MINIMUM QUALIFICATIONS

A.2.1.1 Operator must have minimum of 300-days of contract night fire suppression operations (government agency contract) within last five (5) years and be capable of operating 365 consecutive days with no interruption (7/24)

A.2.1.2 Pilots and aircraft must be qualified to provide the services described herein and should be interagency inspected and approved (carded) at the time of award and must be carded prior to the program start date.

A.2.2 AIRCRAFT MINIMUM SPECIFICATIONS

A.2.2.1 INTERAGENCY REQUIREMENTS

Aircraft must be USFS/CAL FIRE interagency inspected and carded prior to the program start date.

A.2.2.2 ICS TYPE 1 CH-47 HELITANKER

This aircraft will be assigned to Orange County and must be NVG capable. The helitanker must have a 3,000 USG capacity self-filling tank with retractable snorkel and a dash time of 140 knots from fire to hover-fill location. The helitanker must also be capable of operating in excess of two hours before refueling and may be rapid-refueled / hot fueling, so the helicopter can remain running while taking on fuel.

A.2.2.3 ICS TYPE 1 S-61 HELITANKER

This aircraft will be assigned as a short-term replacement aircraft in the event the OCFA CH-47 experiences down time due to maintenance, etc. The aircraft must be NVG capable with a NVG compatible cockpit. The helitanker must have a minimum of 1,000 USG fixed tank, that is configured hover fill / and or snorkel and operated as a firefighting, rotary wing, water, and retardant dropping helicopter.

A.2.2.4 ICS TYPE 1 ATGS PLATFORM (ROTARY)

This aircraft will be assigned to Orange County and must be NVG FAA certified. The aircraft must be equipped with thermal imaging camera and mapping system. Vendor personnel must include a sensor operator that is competent in operating the remote sensing equipment and producing finished data in the aircraft.

At a minimum the aircraft must be a Type II commercial utility helicopter and also fully qualified as a Type I Aerial Supervision platform equipped with:

- a) Qualified and current Air Tactical Group Supervisors (staffed 24/7)
- b) 3 VHF AM Radios
- c) 3 VHF FM Radios
- d) NVG Flight Deck
- e) 2 Nav GPS
- f) 2 Wide Area Augmentation System (WAAS) GPS System
- g) FLIR 380 HDc (IR/EO)
- h) CarteNav AIMS HD Software System
- i) Primary Mission Operators Station (PMOS)
- j) Secondary Mission Operators Station (SMOS)
- k) LTE FirstNet Modem (Transmit data to ground)
- l) Laser pointer to assist with targeting night Helitanker drops
- m) On Board Sensor Operation (staffed 24/7).

A.2.3 REMOTE SENSING EQUIPMENT FOR THE ICS TYPE 1 ATGS PLATFORM

A.2.3.1 INSTALLATION REQUIREMENTS

All technology required in this platform must either be:

- a. Original Equipment Manufacturer (OEM) installation,
- b. Under a Supplemental Type Certificate (STC)
- c. Approved for installation by an FAA Form 8110-3 with all DER supporting engineering substantiation documentation attached, or
- d. Field approved for installation with supporting FAA Form 8110-3 and all DER supporting engineering substantiation documentation attached.

A.2.3.2 INSTALLATION RECORDS

All data pertinent for these installations shall be available for review by the Orange County Fire Authority and qualified interagency carding officials prior to program start date. Installations of the technology requirements are not acceptable as a minor alteration. FAA Field Approvals are authorized provided the following:

- a. Field Approvals based on previously approved installations must match aircraft Make and Model.
- b. Field Approvals using previously approved "generic" Field Approvals are not acceptable, e.g. a Field Approval for a King Air, based on a previously approved similar installation for an Aero Commander, would not be acceptable.

A.2.3.3 AIRCRAFT TECHNOLOGY

The aircraft must possess sensors such as infrared cameras, mapping capabilities and the ability to transmit data (for example via LTE).

All information, data files, drawings, specifications, reports, records, documents and other materials obtained with and/or prepared by Firm in the performance of Services under this agreement shall be the property of OCFA and may not be released without the prior written approval of OCFA.

A.3 SUPPLIER RESPONSIBILITIES

A.3.1 GENERAL

Firm is responsible for providing the aircraft, fuel, pilot, sensor operator, maintenance crew, lodging, and all communications devices, including, but not limited to, tablets, laptops, radios, cell phones, printers, internet, etc. The Firm is also responsible for providing the OCFA Aviation Safety Inspector all required and requested maintenance and data records.

A.3.2 SUBSTITUTIONS

In the event that any of the aircraft are unavailable during the contract performance period, including optional renewal terms, OCFA may consider short-term interchangeability for alternate aircraft. If the Firm wishes to substitute any aircraft, technology, or key personnel during the contract performance period, including optional renewal terms, it may not do so without the express written approval of the OCFA. No such approval will be granted unless the proposed substitution is of equal or higher qualification and/or caliber, as determined at the sole discretion of OCFA.

A.4 OCFA RESPONSIBILITIES

OCFA will be responsible for providing base of operations and an ATGS to staff the ATGS platform.

A.5 SUPPLIER INSURANCE REQUIREMENTS

In addition to the coverage outlined in Section 6 of this Agreement, the Firm is required to provide evidence of the following levels of insurance coverage:

- \$50M aviation liability combined single limit, each aircraft, each occurrence
- \$50M aviation combined single limit, each occurrence and in the annual aggregate with respect to Products & Completed Operations Liability
- \$1M aircraft liability per passenger, baggage, and cargo
- \$1M auto liability
- \$1M pollution liability
- \$1M WC or self-insurance

A.6 DUE DATES/SCHEDULES/TIMELINES

The estimated annual program timeline is as follows:

- **January 1st** : Program Start
- **December 31st** : Program conclusion, meetings, presentations, reports, etc.

A.7 REPORTS AND MEETINGS

It is anticipated that representatives from the Firm will attend program setup and program post-operational meetings as requested.

A.8 PRICING

No payment shall be due to Firm prior to OCFA's receipt of funding from SCE.

All pricing is firm, and include all insurance, warranty, and transportation costs, unless otherwise specified herein. The Firm certifies that the pricing offered is no higher than the lowest price Firm charges other agencies for similar quantities under similar conditions. The Firm further agrees that any reductions in the price of the Goods or Services provided will apply to any undelivered balance. The Firm shall promptly notify OCFA of such price reductions.

Upon mutual agreement, OCFA and Firm may elect to extend the agreement beyond the initial term. Price escalation will only be granted during the 90 day period prior to each annual anniversary of the contract effective date. The Firm may submit a written request that OCFA increase the prices for an amount for no more than the twelve-month change for the month of July in the Consumer Price Index, as published by the U.S. Department of Labor, Bureau of Labor Statistics (<http://www.bls.gov>) as reported for the then-most recent July plus 2.5%.

The Contractor's profit margin shall not be increased during the term of the renewal period nor during the term of any extensions granted. The OCFA shall review any requests for adjustment and respond in writing; such response and approval shall not be unreasonably withheld. No fuel surcharges will be accepted. No price increases will be accepted without proper request by Firm and response by the Purchasing Manager.

A.9 PILOT CURRENCY TRAINING

If either the primary or relief Day Flying Operations crew have not conducted any flights within the previous 25 days, Coulson pilots are authorized (1) hour of training that will be considered

a revenue flight paid by OCFA. The training is for both the HT47 and the S76. The S76 training is recommended to include HLCO/ATGS and ASO training in the same flight.

If either the primary or relief Night Flying Operations crew have not conducted any NVG flights within the previous 25 days, Coulson pilots are authorized (1) hour of training that will be considered a revenue flight paid by OCFA. The training is for both the HT47 and the S76. The S76 training is recommended to include HLCO/ATGS and ASO training in the same flight.

Part 135 and necessary pilot training to remain current according to Coulson Aviation policies and procedures will be considered revenue to the OCFA.

A.10 STAFFING

Mechanic Mandatory Time Off: Mechanics shall have at least two (2) days off during any 14 consecutive duty days. The (2) two days off are not required to be consecutive. Each day off shall not be less than 24 consecutive hours.

Pilot Staffing Mandatory Time Off: Pilots shall have at least two (2) days off during any 12 consecutive duty days. The (2) two days off are not required to be consecutive. Each day off shall not be less than 24 consecutive hours.

A.11 FLIGHT TIME REFERENCES

The table below is the standard we will be following. These standards are the Cal Fire / USFS accepted best practices outlined in the Contract Aerial Resource Standards. *Critical needs or circumstances could dictate OCFA Management to assess with Coulson pilots to operate outside of the recommended flight time.*

Duty Day Note 1 Note 2	14 hours maximum within 24-hour period
Rest Requirement Note 3	10 hours (consecutive)
Flight Time - Single Pilot	7 hours in a Duty Day
NVG Flight Time – Single Pilot	5 hours in a Duty Day
Flight Time – Dual Pilot	8 hours in a Duty Day
NVG Flight Time – Dual Pilot	6 hours in a Duty Day
Daily Staffing Limit Note 4	12 consecutive days
6 Days Note 5	36 - 42 hours

Note 1: Duty Day begins upon arrival at the work location and ends upon departure from the work location. If the work location is greater than a 30-minute drive time from the rest location, the duty day begins upon departure from the “suitable accommodation facility” and ends upon arrival at the “suitable accommodation facility”.

Note 2: Relief flight crew reporting for duty may be required to furnish a record of all duty time during the previous 14 days.

Note 3: Flight time is cumulative and resets only after the (10) consecutive uninterrupted hours of rest is met.

Note 4: During any 14 consecutive days, flight crew members shall be relieved from duty for not less than two days (two uninterrupted 24-hour periods). Days off need not be consecutive.

Note 5: Flight time exceeding 36 hours within 6 consecutive duty days or flight time exceeding 42 hours within 7 consecutive days requires 24 hours off.

A.12 ADDITIONAL

Executive Summary

The Coulson Group of Companies is a family-owned business that was founded in 1960. To date, the Coulson Group has evolved into a leading provider of specialty aviation services with an employee base of over 400 people. Over the last 63 years, the Coulson Group has consistently provided clients and customers with quality services and products, highly qualified technical staff and innovative support solutions.

Coulson Aviation has full time operating business locations in the United States, Australia, Canada, and Chile and is able to leverage off its worldwide support staff during busy times to conduct audits and cross train over year-round fire seasons.

The Coulson Aviation Group operates a mixed fleet of 21 aircraft consisting of:

- **Fixed Wing**
 - Two Lockheed C-130H's
 - Four Cessna 550/560's
 - One Bombardier Challenger
- **Rotary Wing**
 - Five Boeing CH-47D
 - Three Sikorsky S-61's
 - Two Sikorsky UH-60's
 - One Sikorsky S-76
 - Three Bell 412's

Coulson Aviation's operating fleet will be further expanding in 2023 with the addition of a third, fourth, and fifth C-130H and new Sikorsky S70i, operated by Coulson for the State of Colorado Division of Fire and Prevention & Control.

Coulson Aviation Group's operating companies are broken down as:

- **Australia – Coulson Aviation Australia**
 - Air Operator Certificates
 - Aerial Work (Part 138)
 - Air Transport (Part 133)
 - Maintenance
 - Approved Maintenance Organization CASA.145.0228
- **Canada - Coulson Aircrane Ltd**
 - Air Operator Certificates
 - Aerial Work (702)
 - Air Taxi (703)
 - Commuter (704)
 - Maintenance
 - Approved Maintenance Organization # 140-90
- **Chile – SERVICIOS AÉREOS HIGH FLY**
 - Air Operator Certificate
 - Aerial Work

- **United States – Coulson Aviation USA**
 - Air Operator Certificate
 - Private (Part 91)
 - Rotorcraft External Load (Part 133)
 - Commercial Agriculture Operations (Part 137)
 - Air Charter (Part 125)*
 - Maintenance
 - Repair Station 7CUR207C

**Coulson Aviation USA is in the final stages of its FAA Part 125 Approval and expects to conduct its evacuation demonstration prior to the 2023 fire season.*

As the Coulson Aviation Group continues to expand its complex operation in all counties, its systems and support infrastructure are critical to maintaining a high level of safety and quality. Coulson Aviation has built a matrix for all requirements for all the countries it operates in and conducts pilot training to the highest standards for maximum operational flexibility. This means all Coulson Aviation pilots are trained to commercial air transport requirements and all maintenance is done to a commercial carrier standard.

Coulson Aviation USA operates from its primary base in Thermal, California and maintains offices in Reno, NV as well as Portland, OR.

Coulson Aviation is the industry leader with the knowledge, skill, and proven track record in supporting wildland fire suppression services and operations 24/7/365.

Our Commitment

Coulson is committed to ensure that its best-in-class rotary fleet of are the safest, most technologically advanced aerial firefighters for the rigorous missions expected of them. Understanding the long-term effects of the aerial firefighting mission profile and development of appropriate inspection, maintenance and repair regimes ensures the long-term durability of the aircraft for the aerial fire suppression missions and ultimately ensures the safety of flight personnel, ground fire fighters and the public.

Scope of Work Objectives

Coulson’s extensive operational experience in rapid response, combined with best-in-class technology for retardant disbursement & intelligence software to effectively extinguish fires in the early stages of ignition. As the industry leader in night operations, Coulson is 100% confident in our abilities to and exceed in the priorities of the QRF program:

- 1) Extinguish new wildfires during the initial attack
- 2) Maintain a sustained attached throughout the evening
- 3) In both rural and urban settings.

2.3.1 OPERATOR MINIMUM QUALIFICATIONS

Coulson Aviation USA has been successfully conducting Night Vision Goggle Fire Fighting Operations (NVGFFO) since 2010. These efforts were after Coulson Aviation pioneered the first and only nighttime aerial helicopter logging operations in the world to date. The first year Coulson Aviation conducted NVGFFO's was in Canada and approved by Transport Canada in 2010. Coulson later received approval in Australia in 2017 after doing trails, training, and testing for several years. This was a tremendous approval and commitment effort on both Coulson Aviation and CASA. Coulson Aviation has been conducting night firefighting operations ever since.

Coulson Aviation owners, management and regulators have spent tremendous time since 2017, preparing CASA and Australian fire agencies for the opportunity to conduct Initial Attack at night. Coulson received the first approvals for Initial Attack at night in Australia in the 2021 fire season for multiple CH47's and S61's. All Extended Attack operations prior to this time, helped reinforce the training and trials in a crawl, walk, run methodology. The need for an additional overhead night vision helicopter equipped with FLIR 380HD equipment has manifested itself on several occasions. While gathering important fire data was the goal, the realization that the additional aircraft brings a tremendous amount of safety to the nighttime operation for the tactical aircraft.

Coulson Aviation has also operated in the Southern California Region with a Quick Reaction Force program funded by So Cal Edison (QRF). During the last four years Coulson Aviation has conducted operational periods in excess of 165-day contracts providing continuous coverage 24/7 throughout the duration of said contract, again with the highest level of safety, and service. This type of contract takes a tremendous amount of commitment, capital expense for additional crews and should not be taken lightly. A full commitment to manage safety over goals, expectations, and costs, must always prevail as the priority between the customer and company. The company leadership must spearhead these efforts to ensure that all crew members who are qualified are operating to a commercial standard adopted and approved by regulators, customers and the company.

In the past 5 years, Coulson Aviation has held government agency contracts and has operated over 2,700 aircraft contract days for night fire suppression and currently has the crew in place to continue 7/24/365 operations with its fleet of helicopters.

2.3.2 AIRCRAFT MINIMUM SPECIFICATIONS

Coulson's fleet of aircraft will be made available for flight and static inspection prior to contract start date, are all currently carded by the USFS/CAL Fire and will be re-carded prior to the program start date.

Coulson's Boeing CH-47D, equipped with the RADS-L Delivery System, meets the requirements set forth by OCFA in 2.3.2.3.

Coulson's Sikorsky S-61N backup aircraft meets the requirements set forth by OCFA in 2.3.2.4.

Coulson's Sikorsky S-76B meets the requirements set forth by OCFA in 2.3.2.5, specifically including:

- a) Qualified and current Air Tactical Group Supervisors (staffed 24/7)
- b) 3 VHF AM Radios
- c) 3 VHF FM Radios
- d) NVG Flight Deck
- e) 2 Nav GPS
- f) 2 Wide Area Augmentation System (WAAS) GPS System
- g) FLIR 380 HDc (IR/EO)
- h) CarteNav AIMS HD Software System
- i) Primary Mission Operators Station (PMOS)
- j) Secondary Mission Operators Station (SMOS)
- k) LTE FirstNet Modem (Transmit data to ground)
- l) Laser pointer to assist with targeting night Helitanker drops
- m) On Board Sensor Operation (staffed 24/7).

All mentioned equipment is installed per the FAA requirements and all records available for review upon request.

2.6 SUPPLIER INSURANCE REQUIREMENTS

For the duration of the contract, Coulson will provide evidence of the following insurance coverage:

- \$50M aviation liability combined single limit, each aircraft, each occurrence
- \$50M aviation combined single limit, each occurrence and in the annual aggregate with respect to Products & Completed Operations Liability
- \$1M aircraft liability per passenger, baggage, and cargo
- \$1M auto liability
- \$1M pollution liability
- \$1M WC or self-insurance

Exhibit F: Questionnaire

- **Firm's Information:**
 - a. Types of services offered: Wild land fire suppression, passenger transportation, timber harvesting, petroleum exploration, power-line construction and other heavy lift services.
 - b. Year founded: 1990 (Parent company was founded in 1960)
 - c. Location of office(s): Port Alberni BC (Canada), Portland OR, Reno NV, Thermal CA, Bankstown Airport Sydney (Australia).
 - d. Number of employees: 410
 - e. Number of clients: 14

- **Qualifications & Relevant Experience:** Coulson Aviation has been providing aerial fire fighting contracts for the last thirty three years to the USFS, CAL FIRE, DOI, FEMA, and the Governments of Bolivia, Chile, Private Land Companies, The New South Wales Rural Fire Service (Australia), and the State of Victoria (Australia) contract for aviation fire fighting resources. These contracts have been for both large airtankers and large heavy lift helicopters providing both Extended Attack, Initial Attack and Night Extended Attack and Night Initial Attack. Coulson has also provided the Counties of Los Angeles, Orange, Ventura, and Riverside with the same service agreement as this RFP and currently holds the contract. Coulson's flight crews and aircraft have been certified for Night Vision Goggle flights and fire fighting work since 2010 and the company has just well over 2700 contract days providing this service. Coulson has continued to conduct NVG operations consecutively every year accident free, building a wealth of nighttime aerial fire fighting experience and understanding. All of these programs have been high profile and Coulson has pioneered and led the commercial fire fighting industry into the nighttime environment. Coulson is the only non-government Type 1 operator in the world to conduct NVG firefighting operations.

- **Aircraft, Technological Capabilities, and Available Resources:** Provide information regarding the following:
 - a. Aircraft specifications
 - Boeing CH-47D
The CH-47D has a state-of-the-art 3,000 USG capacity self-filling tank with retractable snorkel and a speed of 140 knots from fire to hover-fill location. The helitanker is also capable of operating for more than two hours before refueling, and may be rapid-refueled / hot fueled, so the helicopter can remain running while taking on fuel.
 - Sikorsky S-61N
The S-61N is NVG certified and has a Carson 1,000 USG fixed tank, that is configured for hover/snorkel fill and is operated as a firefighting, water and retardant dropping helicopter.
 - Sikorsky S-76B
The S-76B is NVG certified and currently equipped with thermal imaging camera and mapping system. Vendor personnel will include a sensor operator that is competent in operating the remote sensing equipment and producing finished data in the aircraft.
 - b. Installation data for the sensor equipment
 - The FLIR/Mapping system is installed via STC SR02352AK, permission letter to be provided upon request.
 - c. Specifications and capabilities of the proposed EO/IR sensor
 - The S-76B camera is a Teledyne FLIR Safire 380 HDc. It has Infrared and short-wave infrared scanning coupled with Electro optical cameras. The unit also contains a laser pointer system.

- d. Specifications and capabilities of the proposed Moving Map Software/Hardware
 - The S-76B mission operation software is CarteNavs AIMS-HD. It has full moving map and fire perimeter acquisition. It also has distance/range/target acquisition. Furthermore it is capable of incorporating multiple user created data sources.
 - e. Specifications and capabilities of the proposed method for Data Transmission
 - The S-76B uses a PepWave modem that will utilize a AT&T FirstNet LTE cellular connection. The system has the ability to connect or provide a Wi-Fi connection.
 - f. Available resources
 - The system has the capability to remote connect to allow maintenance and upgrades. The PMOS is a compact rugged one-piece unit that is easily accessible and does not require any other computing or software sources.
 - g. Value-added services: Provide information on any innovative or unique methods, or value-added services available that distinguish your firm from others
 - We have a fully dedicated and supported GIS system/programmer for the aircraft/systems/software. There is further solely sourced support for the PMOS system from Coulson resources.
 - h. Known or planned periods of aircraft unavailability during the program performance period, along with a detailed plan for short-term aircraft interchangeability.
 - Coulson is providing a fully configured and contract compliant Sikorsky S-61N as a backup aircraft to cover any unavailability for both AOG's and planned maintenance events.
- Provide specific project-related information demonstrating competence in the services to be provided; including supporting evidence of available technology, operations plans, and overall approach to the provision of services as described.

Coulson Aviation has developed an operational plan for each year of the QRF operating with the 2022 version provided as an attachment "Coulson QRF Ops Plan.pdf". The QRF Operational Plan is an internal document that sets the intent and provides operational information for all Coulson QRF operatives to be guided and to assist integration with then County Fire Departments. This Operational plan is supported by other documents to improve and achieve excellence, effective and efficient aerial firefighting.
 - Explain how your Firm keeps abreast of the latest changes in current related aviation and communications technology, fire-related air operations, and other requirements.

Coulson is a leader in Aviation technology and with a company structure that provide expertise and innovation to be supported and sponsored by the CEO and COO. Technology and innovation in aviation and communications with a speciality in aerial firefighting.
 - Provide information on any innovative or unique methods used that distinguish your Firm from other agencies providing services.

An example is the tank delivery system installed in the Large Air Tanker and Very Large Helitankers, along with intelligence and camera technology operating on both fixed and rotary aircraft. All listed above are live examples of technology research and adaption into aerial firefighting. These investments has been funded and supported internally and has been developed over a decade and deployed in 3 continents (North America, South America and Australia).

- Provide sample of previous related services completed. Include any related imaging and analysis work for relevant projects and other work for consideration. What additional deliverable documentation would you provide for the tasks that you perform?

Coulson Aviation operates in South America and Australia providing both fixed and rotary aerial firefighting aircraft. The QRF is unique, and the qualities listed below provides an overview of the Coulson approach and details the following:

 - The QRF is a high effective and efficient aerial firefighting capability that is world leading and delivers fire suppression results both day and night.
 - The design is focused on end to end performance is world leading in both initial and extended attack.
 - The changing environments in the climate, weather and landscape including soil dryness and population growth will continue to challenge fire management capabilities.
 - The QRF is a unique capability that provides large volumes of water/retardant delivered from the sky; fast aircraft in operation and speed; a Task Force approach with multiple aircraft working together to maximize the available capacity.
 - The QRF has a proven performance scorecard that provides evidence on succeeding on day and night operations with 60% of the QRF deployment being at night when there is no other aircraft available.

- What are your Firm's plans to acquire or obtain spare aircraft or equipment if necessary? Please provide details.

Coulson has an extensive fleet that is supported by back up aircraft and equipment. There is currently a stock of aircraft, aircraft parts and we continue to investigate what aircraft is available for purchase to build the depth and breath of the Coulson fleet.

- Provide the name of the principal or project manager in the firm who will have direct and continued responsibility for the project.
 - QRF Principal Wayne Coulson
 - QRF Program Lead Craig Lapsley

- Please describe how your firm will fulfill the services requirements called for in this RFP. Indicate your ability to commit resources through the term of a project. Indicate whether you have contracts with resources to ensure their long-term availability for projects.

The QRF resources will be dedicated to the QRF for the longevity of the QRF program. Coulson has a base in Thermal, California that provides the direct support and resources required for the commitment and service needs of the RFP.

- Describe your firm's ability to provide personnel with the aviation knowledge, technical knowledge and qualifications outlined in the position requirements without any loss of service or performance levels to the OCFA.

Coulson Group employs over 400 personnel with 50% being dedicated to the Rotary aviation department. The size of the team provides depth and the expertise within the team is second to none. Coulson has built a team of the most knowledgeable and innovative with very high levels of expertise in aviation and aerial firefighting. These highly experienced and qualified individuals provides an excellent team that is focused on service delivery, performance and integration with other aircraft resources. Coulson, as the incumbent on this contract, has proven year after year its team of experts meet or exceed the OCFA performance levels.

- Explain how your Firm selects and retains resources with current, high-quality skill sets.
Recruitment, retention and reward are three key themes of Coulson and are coupled to an operating a fleet that is the best in the aerial firefighting industry worldwide. The Coulson profile and work ethic provide an employee opportunity that generates that best to come and stay. Success is measured by performance, service delivery and quality personnel to deliver the best aerial firefighting capability in the world.

- Provide information regarding assigned persons regarding experience in providing services as described. Include resumes for each of your assigned team members including specific knowledge, expertise and experience in providing services as described. Pilot carding, certifications, experience in the specific services required. Include a description of training for team members including initial training program and any ongoing training/monitoring. Identify all licenses/certifications currently held.
All Coulson crew members are trained annually in aircraft systems, basic flight maneuvers, advanced firefighting tactics and maneuvers. This training also includes Night Vision Goggle recurrent ground school and flight training by Coulson FAA Certified NVG instructors and/or outside training centers. Flight crew members are also trained in Fire Shelter Use and Deployment considerations. First Aid and CPR, as well as HUET (Helicopter Underwater Egress Training) is conducted every three years. Coulson conducts FAA check rides annually and has lead pilots assigned to each QRF base. Coulson management personnel monitor the actions of the flight crews by conducting daily conference calls with all QRF bases, both day and night shift to assure good transparent communication. In addition to the daily calls, Coulson management has biweekly meetings with the Deputy Chiefs of OCFA and weekly meetings making sure that all contact services and objectives are met in the most expedient means possible. Coulson has included all pilot resumes as attachments.

- Describe the level of customer service that will be provided, including procedure that will ensure consistency and problem escalation and resolution. The description should include: customer service organizational structure, contact process, follow up process, other internal procedures.
Customer Service has a number of layers commencing with the Program Principle being the CEO of Coulson who is supported by a Program Director and the Chief Operating Officer and his team of Directors that lead Rotorcraft Operations and Maintenance. These Directors are supported by a Safety Management System and Technology and Communications leads. Contract and Financial Management are functions lead by a Director and report to the CEO.

- Provide a sample of completed reports and documentation presenting the system capabilities as offered.
Please see attached "Operational Effectiveness and Efficiency of the QRF.pdf" and "QRF Route Fire Presentation.pdf".

- Please describe what spare aircraft would be available to replace the primary water dropping or the ATGS platform in the event either are unavailable. Please describe how you will be able to shuttle crews on an existing fire to help keep aircraft in service and available to the incident.
In the event of an unavailable water dropping aircraft, Coulson has allocated for an S61 to be available to provide the following:
 - An S61 (tanked) would be available to replace a VLHT when not available
 - An S61 has the capability to seat 18 PAX and would be crewed to fly QRF crews in the LA Basin to achieve effective crew changeovers for day and night operations

- Describe your program mobilization process.

The QRF aircraft are fully supported and crewed 24/7 365 days and the mobilization process is defined by the County Fire Departments at the nominated airbases. The Coulson mobilization capacity includes mobile fuel tankers, mobile maintenance vehicles, mobile crew support vehicles. All of these vehicles are permanently attached to the aircraft operating in the QRF. To support the resources senior personnel and dedicated to coordinate with the QRF management and County Fire Departments to achieve the best and most appropriate mobilisation of all assets.

- The agreement resulting from this solicitation is dependent upon the award of grant funds to OCFA by SCE, anticipated to occur in the latter part of 2023. In the event that funding is not provided, OCFA may elect to terminate this agreement. Should the QRF Program be cancelled at any point in time, due to termination of funding by SCE, will your firm request any minimum guaranteed payments?

Should SCE not continue to fund the program for the duration of this contract (guaranteed plus option years), Coulson will require an early termination fee of \$6,000,000. Coulson has a pre-existing agreement with SCE to this effect, contingent upon Coulson being awarded the contract, and OCFA in not a party to this agreement.

- If OCFA elects to end the program for any reason other than the termination of funding by SCE, will your firm request any minimum guaranteed payments?

The early termination fee listed above is only required if SCE terminates the contract.

Pricing Summary:

Per Exhibit H and the proposal requirements, below is the pricing information separated from the technical proposal.

Costs for Project Services as Described			
Description Of Services (365 Days)	Est. Quantity (Hours)	Unit Cost (Rate)	Est. Extended Total
ICS Type I CH-47 (or equivalent) Standby Hourly Rate	8,760	\$1,016.10/hr	\$8,901,043.30
ICS Type I CH-47 (or equivalent) Hourly Flight Rate	110	\$10,462.36/hr	\$1,150,859.60
ICS Type I ATGS Platform (Rotary) Standby Hourly Rate	8,760	\$323.31/hr	\$2,832,228.45
ICS Type I ATGS Platform (Rotary) Hourly Flight Rate	140	\$3,969/hr	\$555,660
ICS Type I S-61 (or equivalent) Standby Hourly Rate <i>Applicable only during unavailability of the OCFA CH-47. Provide the estimated number of hours the OCFA CH-47 will be unavailable each year.</i>		Prior to Dec 7 it was \$22,050, after this it was \$24,386.42 (same rate as CH47)	TBD
ICS Type I S-61(or equivalent) Hourly Flight Rate <i>Applicable only during unavailability of the OCFA CH-47.</i>	TBD	\$6,082.68/hr	TBD
Other (please provide a description, estimated quantities, unit cost and extended total for each additional support item required for the respective aircraft below):			
Mileage rate of \$5.60 for the Fuel Service Vehicle			
This is priced with a low day rate that does not include any penalties for unavailability			
Total:			
<i>This total amount will be used to calculate the score for Criterion 4.2.3)</i>			
Value Add: Provide Description and Pricing for Additional Items/Services Available to OCFA			
Description Of Services (365 Days)	Est. Quantity	Unit Cost	Est. Extended Total
Supply of Gel Product		Cost + 15%	
Supply of a Mobile Retardant Truck	Minimum 180 Days Per Year	\$2,889 Per Day	\$520,000
Supply of additional S-61N Helitanker		To be negotiated	

H1. Provide a description of the key assumptions used to calculate the project fees. If appropriate, identify cost saving strategies.

The key assumptions used to calculate the project fees:

- CH47 - 4 crews consisting of: 8 pilots, 4 crew chiefs, 4 flight engineers, 2 truck drivers and 4 mechanics
- S76 - 2 crews consisting of 2 pilots, 2 camera operators and 2 mechanics
- Crew rotations based on a 21-day schedule

EXHIBIT "B"

Funding Agreement Between SCE and OCFA

OCFA and Firm agree to abide by the terms and conditions contained within the following SCE and OCFA QRF Funding Agreement:

**SEE ATTACHMENT 1 FOR COPY OF
FUNDING AGREEMENT WITH SCE**

**ORANGE COUNTY FIRE AUTHORITY
PROFESSIONAL SERVICES AGREEMENT**

THIS AGREEMENT FOR PROFESSIONAL SERVICES (“Agreement”) is made and entered into this ____ of _____, _____ by and between the Orange County Fire Authority, a joint powers agency created pursuant to the California Joint Exercise of Powers Act (Gov’t Code §§ 6500 *et seq.*) (“OCFA”), and Scott Jones, an individual (“Contractor”). OCFA and Contractor are sometimes individually referred to herein as a “Party” and collectively as the “Parties”.

RECITALS

WHEREAS, OCFA requires a qualified Contractor to deliver project management and support services; and

WHEREAS, based on Contractor’s qualifications and experience, Contractor is capable of providing the required personnel and desires to provide such services; and

WHEREAS, OCFA desires to retain the services of Contractor for the Project.

NOW, THEREFORE, in consideration of the promises and mutual agreements contained herein, OCFA agrees to employ and does hereby retain Contractor and Contractor agrees to provide professional services as follows:

AGREEMENT

1. PROFESSIONAL SERVICES

1.1 Scope of Services

In compliance with all terms and conditions of this Agreement, Contractor shall provide those services specified in the Scope of Services, attached hereto as Exhibit “A”, which includes by reference and by addendum any amendments, addendums, change orders, or modifications mutually agreed upon by the parties hereto (“Services” or “Work”). Contractor warrants that all Services shall be performed in a competent, professional and satisfactory manner in accordance with all standards prevalent in the same profession in the State of California. Contractor represents and warrants that he/she possesses a sufficient skill and experience to perform the Services. All Services shall be completed to the reasonable satisfaction of the OCFA. In the event of any inconsistency between the terms contained in the Scope of Services, and/or the terms set forth in the main body of this Agreement, the terms set forth in the main body of this Agreement and then the Scope of Services shall govern, in that order.

1.2 Compliance with Law

All Services rendered hereunder shall be provided in accordance with all laws, ordinances, resolutions, statutes, rules, and regulations of OCFA and any federal, state or local governmental agency of competent jurisdiction.

1.3 Licenses and Permits

Contractor shall obtain at its sole cost and expense such licenses, permits and approvals as may be required by law for the performance of the Services required by this Agreement.

1.4 Familiarity with Work

By executing this Agreement, Contractor warrants that he/she (a) has thoroughly investigated and considered the Work to be performed, (b) has carefully considered how the Work should be performed, and (c) fully understands the facilities, difficulties and restrictions attending performance of the Work under this Agreement.

1.5 Care of Work

Contractor shall adopt and follow reasonable procedures and methods during the term of the Agreement to prevent loss or damage to materials, papers or other components of the Work, and shall be responsible for all such damage until acceptance of the work by OCFA, except such loss or damages as may be caused by OCFA's own negligence.

1.6 Additional Services

Contractor shall perform services in addition to those specified in the Scope of Services when directed to do so in writing by the OCFA Purchasing Manager, provided that Contractor shall not be required to perform any additional services without compensation. Any additional compensation not exceeding fifteen percent (15%) of the agreement amount must be approved in writing by the OCFA Purchasing Manager. Any greater increase must be approved in writing by the Executive Committee of the OCFA Board of Directors.

2. TIME FOR COMPLETION

The time for completion of the Services to be performed by Contractor is an essential condition of this Agreement. Contractor shall prosecute regularly and diligently the Work of this Agreement according to the schedules set forth in the Scope of Services. Contractor shall not be accountable for delays in the progress of its Work caused by any condition beyond its control and without the fault or negligence of Contractor. Delays shall not entitle Contractor to any additional compensation regardless of the party responsible for the delay.

3. COMPENSATION OF CONTRACTOR

3.1 Compensation of Contractor

For the Services rendered pursuant to this Agreement, Contractor shall be compensated and reimbursed, in accordance with the pricing set forth in the Scope of Services (Exhibit "A") in an amount not to exceed Two Hundred Fifty Thousand Dollars (\$250,000).

3.2 Method of Payment

In any month in which Contractor wishes to receive payment, he/she shall no later than the first working day of such month, submit to OCFA in the form approved by OCFA's Finance Manager, an invoice for Services rendered prior to the date of the invoice. OCFA shall pay Contractor for all expenses stated thereon which are approved by OCFA consistent with this Agreement, within thirty (30) days of receipt of Contractor's invoice.

3.3 Changes

In the event any change or changes in the work is requested by OCFA, the parties hereto shall execute an addendum to this Agreement, setting forth with particularity all terms of such addendum, including, but not limited to, any additional fees. Addenda may be entered into:

A. To provide for revisions or modifications to documents or other work product or work when documents or other work product or work is required by the enactment or revision of law subsequent to the preparation of any documents, other work product or work;

B. To provide for additional services not included in this Agreement or not customarily furnished in accordance with generally accepted practice in Contractor's profession.

3.4 Appropriations

This Agreement is subject to and contingent upon funds being appropriated therefore by the OCFA Board of Directors for each fiscal year covered by the Agreement. If such appropriations are not made, this Agreement shall automatically terminate without penalty to OCFA.

4. PERFORMANCE SCHEDULE

4.1 Time of Essence

Time is of the essence in the performance of this Agreement.

4.2 Schedule of Performance

All Services rendered pursuant to this Agreement shall be performed within the time periods prescribed in the Scope of Services (Exhibit "A"). The extension of any time period specified in Exhibit "A" must be approved in writing by the Contract Officer.

4.3 Force Majeure

The time for performance of Services to be rendered pursuant to this Agreement may be extended because of any delays due to unforeseeable causes beyond the control and without the fault or negligence of the Contractor, including, but not restricted to, acts of God or of a public enemy, acts of the government, fires, earthquakes, floods, epidemic, quarantine restrictions, riots, strikes, freight embargoes, and unusually severe weather if the Contractor shall within ten (10) days of the commencement of such condition notify the Contract Officer who shall thereupon ascertain the facts and the extent of any necessary delay, and extend the time for performing the Services for the period of the enforced delay when and if in the Contract Officer's judgment such delay is justified, and the Contract Officer's determination shall be final and conclusive upon the parties to this Agreement.

4.4 Term

This Agreement shall continue in full force and effect through December 31, 2024 ("Initial Term"), except as may be extended at the sole discretion of OCFA, and unless earlier terminated in accordance with Sections 8.5 or 8.6 of this Agreement.

5. COORDINATION OF WORK

5.1 [Reserved]

5.2 Contract Officer

The Primary Contract Officer shall be Tim Perkins, Assistant Chief, and the Secondary Contract Officer shall be Brian Fennessy, Fire Chief, unless otherwise designated in writing by OCFA. It shall be the Contractor's responsibility to keep the Contract Officer fully informed of the progress of the performance of the Services and Contractor shall refer any decisions that must be made by OCFA to the Contract Officer. Unless otherwise specified herein, any approval of OCFA required hereunder shall mean the approval of the Contract Officer.

5.3 Prohibition Against Subcontracting or Assignment

5.3.1 No Subcontracting Without Prior Approval. The experience, knowledge, capability and reputation of the Contractor were a substantial inducement for OCFA to enter into this Agreement. Therefore, Contractor shall not contract with any other individual or entity to perform in whole or in part the Services required hereunder.

5.4 Independent Contractor

5.4.1 The legal relationship between the Parties is that of an independent contractor, and nothing herein shall be deemed to make Contractor, an OCFA employee. During the performance of this Agreement, Contractor shall act in an independent capacity and shall not act as an OCFA officer or employee. Contractor will determine the means, methods and details of performing the Services subject to the requirements of this Agreement. Neither OCFA nor any of its officials, officers, employees, agents or volunteers shall have control over the conduct of Contractor, except as set forth in this Agreement. Contractor, shall not maintain a permanent office or fixed business location at OCFA's offices. OCFA shall not in any way or for any purpose be deemed to be a partner of Contractor in its business or otherwise a joint venturer or a member of any joint enterprise with Contractor.

5.4.2 Contractor shall not incur or have the power to incur any debt, obligation, or liability against OCFA, or bind OCFA in any manner.

5.4.3 No OCFA benefits shall be available to Contractor in connection with the performance of any Work or Services under this Agreement. Except for professional fees paid to Contractor as provided for in this Agreement, OCFA shall not pay salaries, wages, or other compensation to Contractor for the performance of any Work or Services under this Agreement. OCFA shall not be liable for compensation or indemnification to Contractor for injury or sickness arising out of performing any Work or Services hereunder.

5.6 Employee Retirement System Eligibility Indemnification

5.6.1 [Reserved]

5.6.2 Notwithstanding any other agency, state or federal policy, rule, regulation, law or ordinance to the contrary, Contractor shall not qualify for or become entitled to, and hereby agree to waive any claims to, any compensation, benefit, or any incident of employment by OCFA, including but not limited to eligibility to enroll in any employee retirement system as an employee of OCFA and entitlement to any contribution to be paid by OCFA for employer contribution and/or employee contributions for employee retirement system benefits.

6. INSURANCE AND INDEMNIFICATION

6.1 Compliance with Insurance Requirements. Contractor shall obtain, maintain, and keep in full force and effect during the term of this Agreement, at its sole cost and expense, and in a form and content satisfactory to OCFA, all insurance required under this section. Contractor shall not commence any Services under this Agreement unless and until it has provided evidence satisfactory to OCFA that it has secured all insurance required under this section. If Contractor's existing insurance policies do not meet the insurance requirements set forth herein, Contractor agrees to amend, supplement or endorse the policies to meet all requirements herein.

6.2 Types of Insurance Required. Without limiting the indemnity provisions set forth in this Agreement, Contractor shall obtain and maintain in full force and effect during the term of this Agreement, including any extension thereof, the following policies of insurance:

6.2.1 Professional Liability/Technology Errors and Omissions Insurance ("PLI"). Contractor shall obtain and maintain PLI insurance applicable to each licensed profession practiced by Contractor. Contractor shall maintain PLI insurance with per-claim and aggregate limits no lower than one million dollars (\$1,000,000.00) each occurrence and two million dollars (\$2,000,000.00) aggregate. Covered professional services shall specifically include all Services to be performed under the Agreement and the policy shall be endorsed to delete any exclusions that may exclude coverage for claims within the minimum PLI Limits for the Services to be performed under this Agreement.

6.2.1.1 The PLI policy shall be endorsed to delete any Contractual Liability Exclusion. The PLI shall include contractual liability coverage applicable to this Agreement. The policy must "pay on behalf of" the insured, and include a provision establishing the insurer's duty to defend the insured.

6.2.1.2 If the PLI policy of insurance is written on a "claims-made" basis, the policy shall be continued in full force and effect at all times during the term of this Agreement, and for a period of three (3) years from the date of the completion of all Services provided hereunder (the "PLI Coverage Period"). If any PLI policy is replaced, cancelled, non-renewed, discontinued, or otherwise terminated, or if the limits of a PLI policy are reduced or the available coverage depleted below the required minimum coverage amounts for any reason during the PLI Coverage Period, ATGS shall immediately obtain replacement PLI coverage meeting the requirements of this Section 6.2.1. Such replacement coverage shall satisfy all requirements herein, and shall include coverage for the prior acts or omissions of ATGS during the time period during which any Services were performed. The coverage shall be evidenced by either a new policy evidencing no gap in coverage, or by obtaining separate extended "tail" coverage with the present or new carrier or other insurance arrangements providing for complete coverage, either of which shall be subject to the written approval by the OCFA.

6.2.1.3 If the PLI policy is written on an “occurrence” basis, the policy shall be continued in full force and effect during the term of this Agreement, or until completion of the Services provided for in this Agreement, whichever is later. In the event of termination of the PLI policy during this period, new coverage shall immediately be obtained, and written evidence of the policy shall be immediately provided to OCFA, to ensure PLI coverage during the entire course of performing the Services.

6.2.1.4 Contractor shall not perform any Services at any time during which required types or amounts of PLI insurance are not in effect, and OCFA shall have no obligation to pay Contractor for Services performed while required PLI insurance is not in effect.

6.2.2 Automobile Liability Insurance. Contractor shall maintain, in full force and effect throughout the term of this Agreement, a policy of personal Automobile liability insurance in compliance with all statutory requirements applicable in the State of California.

6.3 Acceptability of Insurers. Each insurance policy required by this section shall be issued by a licensed company authorized to transact business by the Department of Insurance for the State of California with a current rating of A-:VII or better (if an admitted carrier), or a current rating of A:X or better (if offered by a non-admitted insurer listed on the State of California List of Approved Surplus Line Insurers (LASLI)), by the latest edition of A.M. Best’s Key Rating Guide, except that the OCFA will accept workers’ compensation insurance from the State Compensation Fund. In the event the OCFA determines that the Services to be performed under this Agreement creates an increased or decreased risk of loss to the OCFA, the Contractor agrees that the minimum limits of the insurance policies may be changed accordingly upon receipt of written notice from the OCFA.

6.3.1 Contractor shall immediately replace any insurer whose A.M. Best rating drops below the levels specified herein with an insurer that meets the minimum requirements herein.

6.4 Specific Insurance Provisions and Endorsements. Required insurance policies shall not be in compliance if they include any limiting provision or endorsement that has not been submitted to the OCFA for written approval. Required insurance policies shall contain the following provisions, or Contractor shall provide endorsements on forms approved by the Contractor to add the following provisions to the insurance policies:

6.4.1 [Reserved]

6.4.2 Notice of Cancellation: Each policy of any type shall be endorsed to provide that coverage shall not be suspended, voided, cancelled, or modified, or reduced in coverage or in limits, except after thirty (30) days prior written notice has been provided to the OCFA. Notwithstanding the foregoing, if coverage is to be suspended, voided, or cancelled because of Contractor’s failure to pay the insurance

premium, the notice provided by the insurer to OCFA shall be by not less than ten (10) days prior written notice. (A statement that notice will be provided "in accordance with the policy terms" or words to that effect is inadequate to meet the requirements of this Section).

6.4.2.1 Pre-Payment of Policy Premium. If for any reason an insurer declines to issue an endorsement certifying that it will notify OCFA in accordance with section 6.4.2, Contractor shall either obtain insurance from another insurer who will provide the required notice endorsement or shall provide evidence satisfactory to OCFA that the entire policy premium for the full term of that policy has been pre-paid such that the risk of non-payment of premiums during the term of the policy has been eliminated.

6.4.3 ACORD Forms Will Not Be Accepted in Lieu of Endorsements. By executing this Agreement, Contractor certifies that it has – prior to execution of this Agreement - confirmed that its insurance company will issue each of the endorsements required by this Agreement. Contractor also certifies that it understands that "ACORD" Certificate of Liability Insurance forms will not be accepted in lieu of required endorsements.

6.5 Deductibles and Self-Insured Retentions. Any deductible or self-insured retention must be approved in writing by the OCFA in advance. The decision whether to approve or withhold approval of a deductible or self-insured retention shall be made by the OCFA in the OCFA's sole and absolute discretion.

6.6 [Reserved]

6.7 Evidence of Coverage. Concurrently with the execution of the Agreement, Contractor shall deliver certificates of insurance together with original endorsements affecting each of the insurance policies required to be maintained by Contractor by this Section 6. Contractor shall promptly furnish, at OCFA's request, copies of actual policies including all declaration pages, endorsements, exclusions and any other policy documents OCFA requires to verify coverage.

6.7.1 Required insurance policies shall not be in compliance if they include any limiting provision or endorsement that has not been submitted to the OCFA for written approval.

6.7.2 Authorized Signatures. The certificates of insurance and original endorsements for each insurance policy shall be signed by a person authorized by that insurer to bind coverage on its behalf.

6.7.3 Renewal/Replacement Policies. At least fifteen (15) days prior to the expiration of any policy required by this Agreement, evidence of insurance showing that such insurance coverage has been renewed or extended shall be filed with the OCFA. If such coverage is cancelled or reduced and not replaced immediately so as

to avoid a lapse in the required coverage, Contractor shall, within ten (10) days after receipt of written notice of such cancellation or reduction of coverage, file with the OCFA evidence of insurance showing that the required insurance has been reinstated or has been provided through another insurance company or companies meeting all requirements of this Agreement.

6.8 Requirements Not Limiting. Requirement of specific coverage or minimum limits contained in this section are not intended as a limitation on coverage, limits, or other requirements, or a waiver of any coverage normally provided by any insurance. Nothing in this section shall be construed as limiting in any way the indemnification provision contained in this Agreement, or the extent to which Contractor may be held responsible for losses of any type or amount.

6.9 Enforcement of Agreement (Non-Estoppel). Contractor acknowledges and agrees that actual or alleged failure on the part of the OCFA to inform Contractor of any non-compliance with any of the insurance requirements set forth in this Agreement imposes no additional obligation on the OCFA nor does it waive any rights hereunder.

6.10 [Reserved]

6.11 Other Insurance Requirements. The following terms and conditions shall apply to the insurance policies required of Contractor pursuant to this Agreement:

6.11.1 Contractor shall provide immediate written notice to OCFA if (1) any of the insurance policies required herein are terminated, cancelled, suspended, or non-renewed (2) the limits of any of the insurance coverages required herein are reduced; (3) any required insurance coverage is reduced below the required minimum limits through claims or otherwise, or (4) the deductible or self-insured retention is increased.

6.11.2 All insurance coverage and limits required under this Agreement are intended to apply to each insured, including additional insureds, against whom a claim is made or suit is brought to the full extent of the policies. Nothing contained in this Agreement or any other agreement relating to the OCFA or its operations shall limit the application of such insurance coverage.

6.11.3 None of the insurance coverages required herein will be in compliance with the requirements of this section if they include any limiting endorsement which substantially impairs the coverages set forth herein (e.g., elimination of contractual liability or reduction of discovery period), unless the endorsement has first been submitted to the OCFA and approved in writing.

6.11.4 Certificates of insurance will not be accepted in lieu of required endorsements, and submittal of certificates without required endorsements may

delay the Project. It is Contractor's obligation to ensure timely compliance with all insurance submittal requirements as provided herein and Contractor agrees to reimburse OCFA for any losses resulting from its failure to timely comply with the requirements of this Agreement.

6.11.5 [Reserved]

6.11.6 Contractor agrees to provide immediate written notice to OCFA of any claim, demand or loss arising out of the Services performed under this Agreement and for any other claim, demand or loss which may reduce the insurance available to an amount less than required by this Agreement.

7. RECORDS AND REPORTS

7.1 Reports

Contractor shall periodically prepare and submit to the Contract Officer such reports concerning the performance of the Services required by this Agreement as the Contract Officer shall require.

7.2 Records

Contractor shall keep such books and records as shall be necessary to properly perform the Services required by this Agreement and enable the Contract Officer to evaluate the performance of such Services. Except as provided in Section 7.5, the Contract Officer shall have full and free access to such books and records at all reasonable times, including the right to inspect, copy, audit and make records and transcripts from such records.

7.3 Ownership of Documents

Except as provided in Section 7.5, all drawings, specifications, reports, records, documents and other materials prepared by Contractor in the performance of this Agreement shall be the property of OCFA and shall be delivered to OCFA upon request of the Contract Officer or upon the termination of this Agreement, and Contractor shall have no claim for further employment or additional compensation as a result of the exercise by OCFA of its full rights or ownership of the documents and materials hereunder. Contractor may retain copies of such documents for its own use. Contractor shall have an unrestricted right to use the concepts embodied therein.

7.4 Release of Documents

All drawings, specifications, reports, records, documents and other materials prepared by Contractor in the performance of Services under this Agreement shall not be released publicly without the prior written approval of the Contract Officer.

7.5 Confidential Materials

Notwithstanding anything to the contrary in this Agreement, the Contractor shall be the sole owner of Contractor's work papers and of any other documents, data or information which are required to be maintained confidential from OCFA by one or more rules of professional conduct governing the Contractor's profession(s) (collectively, the "Confidential Materials"). Neither the OCFA nor the Contract Officer shall have access to the Confidential Materials except as may otherwise be required by order issued by a court of competent jurisdiction.

8. ENFORCEMENT OF AGREEMENT

8.1 California Law

This Agreement shall be construed and interpreted both as to validity and to performance of the parties in accordance with the laws of the State of California. Legal actions concerning any dispute, claim or matter arising out of or in relation to this Agreement shall be instituted in the Superior Court of the County of Orange, State of California, or any other appropriate court in such county, and Contractor covenants and agrees to submit to the personal jurisdiction of such court in the event of such action.

8.2 Waiver

No delay or omission in the exercise of any right or remedy of a non-defaulting party on any default shall impair such right or remedy or be construed as a waiver. No consent or approval of OCFA shall be deemed to waiver or render unnecessary OCFA's consent to or approval of any subsequent act of Contractor. Any waiver by either party of any default must be in writing and shall not be a waiver of any other default concerning the same or any other provision of this Agreement.

8.3 Rights and Remedies are Cumulative

Except with respect to rights and remedies expressly declared to be exclusive in this Agreement, the rights and remedies of the parties are cumulative and the exercise by either party of one or more of such rights or remedies shall not preclude the exercise by it, at the same or different times, of any other rights or remedies for the same default or any other default by the other party.

8.4 Legal Action

In addition to any other rights or remedies, either party may take legal action, in law or in equity, to cure, correct or remedy any default, to recover damages for any default, to compel specific performance of this Agreement, to obtain injunctive relief, a declaratory judgment, or any other remedy consistent with the purposes of this Agreement.

8.5 Termination Prior to Expiration of Term

OCFA reserves the right to terminate this Agreement at any time, with or without cause, upon thirty (30) days written notice to Contractor, except that where termination is due to the fault of the Contractor and constitutes an immediate danger to health, safety and general welfare, the period of notice shall be such shorter time as may be appropriate. Upon receipt of the notice of termination, Contractor shall immediately cease all Services hereunder except such as may be specifically approved by the Contract Officer. Contractor shall be entitled to compensation for all Services rendered prior to receipt of the notice of termination and for any Services authorized by the Contract Officer thereafter.

Contractor may terminate this Agreement, with or without cause, upon thirty (30) days written notice to OCFA.

8.6 Termination for Default of Contractor

[Reserved]

8.7 Attorneys' Fees

[Reserved]

9. OCFA OFFICERS AND EMPLOYEES; NON-DISCRIMINATION

9.1 Non-Liability of OCFA Officers and Employees

No officer or employee of OCFA shall be personally liable to the Contractor, or any successor-in-interest, in the event of any default or breach by OCFA or for any amount which may become due to the Contractor or its successor, or for breach of any obligation of the terms of this Agreement.

9.2 Covenant Against Discrimination

Contractor covenants that, by and for itself, its heirs, executors, assigns, and all persons claiming under or through them, that there shall be no discrimination or segregation in the performance of or in connection with this Agreement regarding any

person or group of persons on account of race, color, creed, religion, sex, marital status, national origin, or ancestry.

10. MISCELLANEOUS PROVISIONS

10.1 Confidentiality

Information obtained by Contractor in the performance of this Agreement shall be treated as strictly confidential and shall not be used by Contractor for any purpose other than the performance of this Agreement without the written consent of OCFA.

10.2 Notice

Any notice, demand, request, consent, approval, or communication either party desires or is required to give to the other party or any other person shall be in writing and either served personally or sent by pre-paid, first-class mail to the address set forth below. Either party may change its address by notifying the other party of the change of address in writing. Notice shall be deemed communicated forty-eight (48) hours from the time of mailing if mailed as provided in this Section.

Orange County Fire Authority
Attention: Sara Kennedy
1 Fire Authority Road
Irvine, CA 92602

WITH COPY TO:
David E. Kendig, General Counsel
Woodruff, Spradlin & Smart
555 Anton Blvd. Suite 1200
Costa Mesa, CA 92626

To Contractor:

Scott Jones
1867 Virazon Drive
La Habra, CA 90631

10.2 Integrated Agreement

This Agreement contains all of the agreements of the parties and cannot be amended or modified except by written agreement.

10.3 Amendment

This Agreement may be amended at any time by the mutual consent of the parties by an instrument in writing.

10.4 Severability

In the event that any one or more of the phrases, sentences, clauses, paragraphs, or sections contained in this Agreement shall be declared invalid or unenforceable by valid judgment or decree of a court of competent jurisdiction, such invalidity or unenforceability shall not affect any of the remaining phrases, sentences,

clauses, paragraphs, or sections of this Agreement, which shall be interpreted to carry out the intent of the parties hereunder.

10.5 Corporate Authority

The persons executing this Agreement on behalf of the parties hereto warrant that they are duly authorized to execute this Agreement on behalf of said parties and that by so executing this Agreement the parties hereto are formally bound to the provisions of this Agreement.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the dates stated below.

“OCFA”

ORANGE COUNTY FIRE AUTHORITY

Date: _____

By: _____

Sara Kennedy, CPPB
Purchasing Manager

APPROVED AS TO FORM.

ATTEST:

By: _____

David E. Kendig
General Counsel

Maria D. Huizar
Clerk of the Board

Date: _____

“CONTRACTOR”

SCOTT JONES

Date: _____

By: _____

Scott Jones

EXHIBIT "A"
Scope of Services

A1. Program Manager Position

A1.1 Position Overview

Contractor will be considered a Quick Reaction Force (QRF) Program Manager and provide on-demand 24/7 support. Contractor will serve as the primary point of contact for all movement of QRF aircraft, including initial attack dispatches, pre-positioning and diverts.

A.2 Services

A2.1 Primary Duties

- a) Coordinate with agencies such as Cal OES, Northern California Geographic Coordination Center (ONCC), and Southern California Geographic Coordination Center (OSCC) to establish and set mission priorities.
- b) Track and maintain status, availability and/or any limitations of personnel and aircraft.
- c) Serve as liaison between OCFA and the many distinct elements involved in the delivery and use of all QRF products.
- d) Coordinate with end users (agencies, departments, and incidents) to ensure their needs are being met.

A2.1 Additional Services

As requested by OCFA, Contractor shall make presentations, attend meetings, and provide briefings on program-specific information.

A2.2 Schedules

A2.2.1 Daily Duties. The daily duties will be coordinated through the Primary or Secondary Contract Officer.

A2.2.2 QRF Program. Contractor services will be utilized in the QRF program, which operates primarily from Southern California, but may operate anywhere in within the State of California. The operation will provide twenty-four (24) hour availability. Contractor will primarily provide services from a remote location. The location must provide for connectivity with phone and internet access. Contractor may be required to be available at a work site identified at the request of OCFA.

A3. Compensation

A3.1 Hourly Rate

A3.1.1 Standard Duties. The hourly rate for the standard duties is \$166 and includes, but is not limited to, all staffing coordination activities, Program Manager duties, support services, informal training provided during the shift, formal training, and full day support for additional services as requested by OCFA. Contractor is responsible for travel to and from the work location, food, and lodging.

A3.1.2 Additional Services. The rate for additional services including, but not limited to, remote oversight of aviation platforms, and attendance at meetings, presentations, and other similar events will be charged at one hundred sixty-six dollars (\$166) per hour.

**ORANGE COUNTY FIRE AUTHORITY
PROFESSIONAL SERVICES AGREEMENT**

THIS AGREEMENT FOR PROFESSIONAL SERVICES (“Agreement”) is made and entered into this ____ day of _____, ____ by and between the Orange County Fire Authority, a public agency, hereinafter referred to as “OCFA”, and Perimeter Solutions LP, hereinafter referred to as “Firm”. OCFA and Firm are sometimes individually referred to herein as a “Party” and collectively as the “Parties”.

RECITALS

WHEREAS, OCFA requires the services of a qualified firm to provide mobile retardant base services, hereinafter referred to as “Project”; and

WHEREAS, Firm has submitted to OCFA a proposal, incorporated herein by this reference (“Proposal”); and

WHEREAS, based on its experience and reputation, Firm is qualified to provide the necessary services for the Project and desires to provide such services; and

WHEREAS, OCFA desires to retain the services of Firm for the Project.

NOW, THEREFORE, in consideration of the promises and mutual agreements contained herein, OCFA agrees to employ and does hereby employ Firm and Firm agrees to provide professional services as follows:

AGREEMENT

1. PROFESSIONAL SERVICES

1.1 Scope of Services

In compliance with all terms and conditions of this Agreement, Firm shall provide those services specified in the Scope of Services, attached hereto as Exhibit “A”, which includes by reference and by addendum: (1) Firm’s Proposal, and (2) any amendments, addendums, change orders, or modifications mutually agreed upon by the parties hereto (“Services” or “Work”). Firm warrants that all Services shall be performed in a competent, professional and satisfactory manner in accordance with all standards prevalent in the same profession in the State of California. Firm represents and warrants that it and all employees, subconsultants and subcontractors providing any Services pursuant to this Agreement shall have a sufficient skill and experience to perform the Services. All Services shall be completed to the reasonable satisfaction of the OCFA. In

the event of any inconsistency between the terms contained in the Scope of Services, and/or the terms set forth in the main body of this Agreement, the terms set forth in the main body of this Agreement and then the Scope of Services shall govern, in that order.

1.2 Compliance with Law

All Services rendered hereunder shall be provided in accordance with all laws, ordinances, resolutions, statutes, rules, and regulations of OCFA and any federal, state or local governmental agency of competent jurisdiction.

1.3 Licenses and Permits

Firm shall obtain at its sole cost and expense such licenses, permits and approvals as may be required by law for the performance of the Services required by this Agreement.

1.4 Familiarity with Work

By executing this Agreement, Firm warrants that Firm (a) has thoroughly investigated and considered the Work to be performed, (b) has investigated the site of the Work and become fully acquainted with the conditions there existing, (c) has carefully considered how the Work should be performed, and (d) fully understands the facilities, difficulties and restrictions attending performance of the Work under this Agreement. Should the Firm discover any latent or unknown conditions materially differing from those inherent in the Work or as represented by OCFA, Firm shall immediately inform OCFA of such fact and shall not proceed with any Work except at Firm's risk until written instructions are received from the Contract Officer.

1.5 Care of Work

Firm shall adopt and follow reasonable procedures and methods during the term of the Agreement to prevent loss or damage to materials, papers or other components of the work, and shall be responsible for all such damage until acceptance of the work by OCFA, except such loss or damages as may be caused by OCFA's own negligence.

1.6 Additional Services

Firm shall perform services in addition to those specified in the Scope of Services when directed to do so in writing by the OCFA Purchasing Manager, provided that Firm shall not be required to perform any additional services without compensation. Any additional compensation not exceeding fifteen percent (15%) of the agreement amount must be approved in writing by the OCFA Purchasing Manager. Any greater

increase must be approved in writing by the Executive Committee of the OCFA Board of Directors.

2. TIME FOR COMPLETION

The time for completion of the Services to be performed by Firm is an essential condition of this Agreement. Firm shall prosecute regularly and diligently the work of this Agreement according to the schedules set forth in Firm's proposal. Firm shall not be accountable for delays in the progress of its work caused by any condition beyond its control and without the fault or negligence of Firm. Delays shall not entitle Firm to any additional compensation regardless of the party responsible for the delay.

3. COMPENSATION OF FIRM

3.1 Compensation of Firm

For the Services rendered pursuant to this Agreement, Firm shall be compensated and reimbursed per the Scope of Work, attached hereto as Exhibit "A".

3.2 Method of Payment

In any month in which Firm wishes to receive payment, Firm shall no later than the first working day of such month, submit to OCFA in the form approved by OCFA's Director of Finance, an invoice for Services rendered prior to the date of the invoice. OCFA shall pay Firm for all expenses stated thereon which are approved by OCFA consistent with this Agreement, within thirty (30) days of receipt of Firm's invoice.

3.3 Changes

In the event any change or changes in the work is requested by OCFA, the parties hereto shall execute an addendum to this Agreement, setting forth with particularity all terms of such addendum, including, but not limited to, any additional fees. Addenda may be entered into:

A. To provide for revisions or modifications to documents or other work product or work when documents or other work product or work is required by the enactment or revision of law subsequent to the preparation of any documents, other work product or work;

B. To provide for additional services not included in this Agreement or not customarily furnished in accordance with generally accepted practice in Firm's profession.

3.4 Appropriations

This Agreement is subject to and contingent upon funds being appropriated therefore by the OCFA Board of Directors for each fiscal year covered by the Agreement. If such appropriations are not made, this Agreement shall automatically terminate without penalty to OCFA.

4. PERFORMANCE SCHEDULE

4.1 Time of Essence

Time is of the essence in the performance of this Agreement.

4.2 Schedule of Performance

All Services rendered pursuant to this Agreement shall be performed within the time periods prescribed in Firm's Proposal, attached hereto as Exhibit "A". The extension of any time period specified in Exhibit "A" must be approved in writing by the Contract Officer.

4.3 Force Majeure

The time for performance of Services to be rendered pursuant to this Agreement may be extended because of any delays due to unforeseeable causes beyond the control and without the fault or negligence of the Firm, including, but not restricted to, acts of God or of a public enemy, acts of the government, fires, earthquakes, floods, epidemic, quarantine restrictions, riots, strikes, freight embargoes, and unusually severe weather if the Firm shall within ten (10) days of the commencement of such condition notify the Contract Officer who shall thereupon ascertain the facts and the extent of any necessary delay, and extend the time for performing the Services for the period of the enforced delay when and if in the Contract Officer's judgment such delay is justified, and the Contract Officer's determination shall be final and conclusive upon the parties to this Agreement.

4.4 Term

This Agreement shall continue in full force and effect during the period from July 1, 2024 through December 31, 2024 unless earlier terminated in accordance with Sections 8.5 or 8.6 of this Agreement.

5. COORDINATION OF WORK

5.1 Representative of Firm

The following principal of the Firm is hereby designated as being the principal and representative of Firm authorized to act in its behalf with respect to the work specified herein and make all decisions in connection therewith: _____

It is expressly understood that the experience, knowledge, capability and reputation of the foregoing principal is a substantial inducement for OCFA to enter into this Agreement. Therefore, the foregoing principal shall be responsible during the term of this Agreement for directing all activities of Firm and devoting sufficient time to personally supervise the Services hereunder. The foregoing principal may not be changed by Firm without the express written approval of OCFA.

5.2 Contract Officer

The Contract Officer shall be Tim Perkins, Assistant Chief, unless otherwise designated in writing by OCFA. It shall be the Firm's responsibility to keep the Contract Officer fully informed of the progress of the performance of the Services and Firm shall refer any decisions that must be made by OCFA to the Contract Officer. Unless otherwise specified herein, any approval of OCFA required hereunder shall mean the approval of the Contract Officer.

5.3 Prohibition Against Subcontracting or Assignment

5.3.1 No Subcontracting Without Prior Approval. The experience, knowledge, capability and reputation of Firm, its principals and employees, and the Firm Representative were a substantial inducement for OCFA to enter into this Agreement. Therefore, other than Firm's customary use of HRC personnel, Firm shall not contract with any other entity to perform in whole or in part the Services required hereunder without the express written approval of OCFA.

5.3.2 Provisions in the Event Subcontractor(s) Are Authorized. If Firm is authorized to subcontract any part of the Services as provided in Section 5.3.1, Firm shall be responsible to OCFA for the acts and omissions of its subcontractor(s) and subconsultant(s) in the same manner as it is for persons directly employed. For purposes of this Agreement, all persons engaged in the performance of Services will be considered employees of Firm. OCFA will deal directly with and will make all payments to Firm. Nothing contained in this Agreement shall create any contractual relationships between any subcontractor and OCFA. Firm shall ensure that all subcontractor insurance requirements set forth in Section 6 below (including its

subsections) are complied with prior to commencement of Services by each subcontractor.

5.3.2.1 Withholding Payment for Non-Authorized Subcontractors. OCFA shall have the right to withhold payment from Firm for Services performed by any subcontractor or subconsultant performing Services but not authorized in writing by OCFA, or regarding which the insurance or other requirements under this Agreement have not been satisfied.

5.3.3 Assignments. Neither this Agreement nor any interest herein may be assigned, transferred, conveyed, hypothecated, or encumbered voluntarily or by operation of law, whether for the benefit of creditors or otherwise, without the prior written approval of OCFA. Transfers restricted hereunder shall include the transfer to any person or group of persons acting in concert of more than twenty five percent (25%) of the present ownership and/or control of Firm, taking all transfers into account on a cumulative basis. In the event of any such unapproved transfer, including any bankruptcy proceeding, this Agreement shall be void. No approved transfer shall release Firm or any surety of Firm from any liability hereunder without the express written consent of OCFA.

5.4 Independent Contractor

5.4.1 The legal relationship between the Parties is that of an independent contractor, and nothing herein shall be deemed to make Contractor, or any of its personnel, an OCFA employee. During the performance of this Agreement, Firm and its officers, employees, and agents shall act in an independent capacity and shall not act as OCFA officers or employees. Firm will determine the means, methods and details of performing the Services subject to the requirements of this Agreement. The personnel performing the Services under this Agreement on behalf of Firm shall at all times be under Firm's exclusive direction and control. Neither OCFA nor any of its officials, officers, employees, agents or volunteers shall have control over the conduct of Firm or any of its officers, employees, or agents, except as set forth in this Agreement. Firm, its officers, employees or agents, shall not maintain a permanent office or fixed business location at OCFA's offices. OCFA shall have no voice in the selection, discharge, supervision, or control of Firm's officers, employees, representatives or agents or in fixing their number, compensation, or hours of service. Firm shall pay all wages, salaries, and other amounts due its employees in connection with the performance of Services under this Agreement and shall be responsible for all reports and obligations respecting them, including but not limited to social security income tax withholding, unemployment compensation, workers' compensation, and other similar matters. OCFA shall not in any way or for any purpose be deemed to be a partner of Firm in its business or otherwise a joint venturer or a member of any joint enterprise with Firm.

5.4.2 Firm shall not incur or have the power to incur any debt, obligation, or liability against OCFA, or bind OCFA in any manner.

5.4.3 No OCFA benefits shall be available to Firm, its officers, employees, or agents, in connection with the performance of any Work or Services under this Agreement. Except for professional fees paid to Firm as provided for in this Agreement, OCFA shall not pay salaries, wages, or other compensation to Firm for the performance of any Work or Services under this Agreement. OCFA shall not be liable for compensation or indemnification to Firm, its officers, employees, or agents, for injury or sickness arising out of performing any Work or Services hereunder. If for any reason any court or governmental agency determines that the OCFA has financial obligations, other than pursuant to Section 2 herein, of any nature relating to salary, taxes, or benefits of Firm's officers, employees, representatives, agents, or subconsultants or subcontractors, Firm shall defend, indemnify, and hold harmless OCFA from and against all such financial obligations.

5.6 Employee Retirement System Eligibility Indemnification

5.6.1 In the event that Firm or any employee, agent, or subcontractor of Firm providing any Work or Services under this Agreement claims or is determined by a court of competent jurisdiction to be eligible for enrollment in an employee retirement system as an employee of the OCFA, Firm shall indemnify, defend, and hold harmless OCFA against: (1) all such claim(s) and determination(s); (2) for the payment of any employee and/or employer contributions for employee retirement system benefits on behalf of Firm or its employees, agents or subcontractors; and (3) the payment of any penalties and interest on such contributions which would otherwise be the responsibility of the OCFA.

5.6.2 Notwithstanding any other agency, state or federal policy, rule, regulation, law or ordinance to the contrary, Contractor and any of its employees, agents, and subcontractors providing any Work or Services under this Agreement shall not qualify for or become entitled to, and hereby agree to waive any claims to, any compensation, benefit, or any incident of employment by OCFA, including but not limited to eligibility to enroll in an employee retirement system as an employee of OCFA and entitlement to any contribution to be paid by OCFA for employer contribution and/or employee contributions for employee retirement system benefits.

6. INSURANCE AND INDEMNIFICATION

6.1 Compliance with Insurance Requirements. Firm shall obtain, maintain, and keep in full force and effect during the term of this Agreement, at its sole cost and expense, and in a form and content satisfactory to OCFA, all insurance required under this section. Firm shall not commence any Services under this Agreement unless and until it has provided evidence satisfactory to OCFA that it has secured all insurance

required under this section. If Firm's existing insurance policies do not meet the insurance requirements set forth herein, Firm agrees to amend, supplement or endorse the policies to meet all requirements herein.

6.2 Types of Insurance Required. Without limiting the indemnity provisions set forth in this Agreement, Firm shall obtain and maintain in full force and effect during the term of this Agreement, including any extension thereof, the following policies of insurance:

6.2.1 Omitted

6.2.2 Commercial General Liability Insurance. Firm shall obtain and maintain, in full force and effect throughout the term of this Agreement, Insurance Services Office (ISO) Form CG 00 01 covering CGL on a "claims made" basis, including property damage, bodily injury and personal & advertising injury with limits no less than one million dollars (\$1,000,000.00) per occurrence and two million dollars (\$2,000,000.00) aggregate. If a general aggregate limit applies, the general aggregate limit shall be no less than two million dollars (\$2,000,000.00). Coverage for products and completed operations is required with limits no less than two million dollars (\$2,000,000.00) aggregate. Firm shall maintain CGL insurance with per-claim, aggregate and products and operations completed limits no lower than the minimum CGL coverage limits set forth above. Defense costs shall be paid in addition to the limits. The policy shall contain no endorsements or provisions limiting coverage for any of the following: (1) contractual liability; (2) cross liability exclusion for claims or suits by one insured against another; or (3) any other exclusion contrary to this Agreement.

For any coverage that is provided on a claims-made coverage form (which type of form is permitted only where specified in the insurance requirements outlined above): (i) The retroactive date must be shown, and must be before the date of this Agreement, and before the beginning of any Services related to this Agreement, (ii) Insurance must be maintained and Certificates of Insurance must be provided to OCFA for at least three (3) years after expiration of this Agreement; (iii) If coverage is canceled or non-renewed, and not replaced with another claims-made policy form with a retroactive date prior to the effective date of this Agreement or the start of any Services related to this Agreement, Firm must purchase an extended reporting period for a minimum of three (3) years after expiration of the Agreement; and (iv) If requested by OCFA, a copy of the policy's claims reporting requirement must be submitted to the OCFA for review.

6.2.3 Automobile Liability Insurance. Firm shall obtain and maintain, in full force and effect throughout the term of this Agreement, a policy of Automobile liability insurance written on a per occurrence basis with limits of at least one million dollars (\$1,000,000.00) combined limit for each occurrence covering bodily injury, disease and

property damage. Defense costs shall be paid in addition to the policy limits. The policy shall specifically include coverage for owned, non-owned, leased, and hired automobiles, and be endorsed to eliminate any exclusion applicable to any of them.

6.2.4 Workers' Compensation Insurance. Firm shall obtain and maintain, in full force and effect throughout the term of this Agreement, a policy of Workers' Compensation Insurance with limits no less than one million dollars (\$1,000,000.00), and in compliance with all other statutory requirements applicable in the State of California. Firm hereby waives on its own behalf, and shall obtain an endorsement from its workers' compensation insurer waiving on the insurance company's behalf, all rights of subrogation against the OCFA, its board members, officials, officers, employees, agents and volunteers.

6.2.4.1 If subconsultants or subcontractors are used, Firm shall require each of its subconsultants and subcontractors, if any, to waive all rights of subrogation, and to obtain endorsements from the subconsultants'/subcontractors' workers' compensation insurers waiving all rights of subrogation, against the OCFA, its board members, officials, officers, employees, agents and volunteers.

6.2.4.2 Firm and each of its subconsultants and subcontractors shall also maintain, in full force and effect throughout the term of this Agreement, Employer's Liability Insurance with limits of at least one million dollars (\$1,000,000.00) per injury or illness.

6.2.5 Pollution Liability. Firm shall provide pollution liability coverage that includes, but is not limited to, the coverage limits and coverage provisions outlined below. Coverage must be included for bodily injury and property damage, including coverage for loss of use and diminution in property value, and for resultant clean-up costs, arising out of the or resulting from: (i) any Services performed under this Agreement, including (ii) any storage or transportation, including the loading or unloading of, hazardous wastes, hazardous materials, or contaminants. The required coverage limits shall be the greater of the broader coverage and maximum limits of coverage of any insurance policy or proceeds available to the Named Insured, including applicable Umbrella or Excess Limits, or the following: \$1,000,000 per occurrence or claim, and \$1,000,000 aggregate. Coverage may be written on a claims-made form. If coverage is on a claims-made basis, the coverage must be maintained for at least 3 years after all Services performed under this Agreement are complete, and additional claims-made coverage requirements apply as described below. The policy(ies) shall also contain or be endorsed to contain a provision that coverage shall apply on a primary and noncontributory basis to OCFA before OCFA's own primary insurance or self-insurance shall be called upon to protect it as a Named Insured. A severability of interests provision must apply for all the additional insureds, ensuring that Firm's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the insurer's limits of liability.

6.3 Acceptability of Insurers. Each insurance policy required by this section shall be issued by a licensed company authorized to transact business by the Department of Insurance for the State of California with a current rating of A-:VII or better (if an admitted carrier), or a current rating of A:X or better (if offered by a non-admitted insurer listed on the State of California List of Approved Surplus Line Insurers (LASLI)), by the latest edition of A.M. Best's Key Rating Guide, except that the OCFA will accept workers' compensation insurance from the State Compensation Fund. In the event the OCFA determines that the Services to be performed under this Agreement creates an increased or decreased risk of loss to the OCFA, the Firm agrees that the minimum limits of the insurance policies may be changed accordingly upon receipt of written notice from the OCFA.

6.3.1 Firm shall immediately replace any insurer whose A.M. Best rating drops below the levels specified herein with an insurer that meets the minimum requirements herein.

6.4 Specific Insurance Provisions and Endorsements. Required insurance policies shall not be in compliance if they include any limiting provision or endorsement that has not been submitted to the OCFA for written approval. Required insurance policies shall contain the following provisions, or Firm shall provide endorsements on forms approved by the OCFA to add the following provisions to the insurance policies:

6.4.1 CGL, Auto and Pollution Liability Endorsements. The policy or policies of insurance required by this Agreement for CGL, Automobile and Pollution Liability Insurance shall be endorsed as follows:

6.4.1.1 Additional Insured: The OCFA, its board members, officials, officers, employees, agents and volunteers, shall be additional insureds; and

6.4.1.1.1 Additional Insured Endorsements: Additional insured endorsements shall not (1) be restricted to "ongoing operations", (2) exclude "contractual liability", (3) restrict coverage to "sole" liability of Firm, (4) contain any other exclusions contrary to the Agreement; or (5) contain special limitations on the scope of protection afforded to additional insureds.

6.4.1.2 Primary, Non-Contributing. Each CGL and Auto Liability insurance policy shall be endorsed to be primary and any other insurance, deductible, or self-insurance maintained by the OCFA, its board members, officials, officers, employees, agents or volunteers, shall not contribute with the primary insurance.

6.4.2 Notice of Cancellation: Each policy of any type shall be endorsed to provide that coverage shall not be suspended, voided, cancelled, or modified, or reduced in coverage or in limits, except after thirty (30) days prior written notice has been provided to the OCFA. Notwithstanding the foregoing, if coverage is to be suspended, voided, or cancelled because of Firm's failure to pay the insurance premium, the notice provided by the insurer to OCFA shall be by not less than ten (10) days prior written notice. (A statement that notice will be provided "in accordance with the policy terms" or words to that effect is inadequate to meet the requirements of this Section).

6.4.2.1 Pre-Payment of Policy Premium. If for any reason an insurer declines to issue an endorsement certifying that it will notify OCFA in accordance with section 6.4.2, Firm shall either obtain insurance from another insurer who will provide the required notice endorsement or shall provide evidence satisfactory to OCFA that the entire policy premium for the full term of that policy has been pre-paid such that the risk of non-payment of premiums during the term of the policy has been eliminated.

6.4.3 ACORD Forms Will Not Be Accepted in Lieu of Endorsements. By executing this Agreement, Firm certifies that it has – prior to execution of this Agreement - confirmed that its insurance company will issue each of the endorsements required by this Agreement. Firm also certifies that it understands that "ACORD" Certificate of Liability Insurance forms will not be accepted in lieu of required endorsements.

6.5 Deductibles and Self-Insured Retentions. Any deductible or self-insured retention must be approved in writing by the OCFA in advance. The decision whether to approve or withhold approval of a deductible or self-insured retention shall be made by the OCFA in the OCFA's sole and absolute discretion. (Firm may request preapproval from OCFA of a deductible or self-insured retention prior to submitting Firm's Proposal). OCFA acknowledges that the Firm is subject to a \$250,000 deductible under its General Liability and Pollution Liability policies.

6.6 Waiver of Subrogation. All policies of Commercial General Liability and Automobile Liability Insurance shall contain or be endorsed to waive subrogation against the OCFA, its officials, officers, employees, agents and volunteers, or shall specifically allow Firm or others providing insurance evidence in compliance with the requirements set forth in this section to waive their right to recovery prior to a loss. Firm hereby agrees to waive its own right of subrogation against the OCFA, its officials, officers, employees, agents and volunteers.

6.6.1 Waivers of Subrogation: Subconsultants and Subcontractors. If OCFA approves the use of subconsultants or subcontractors for the performance of any portion of the Services, then Firm shall obtain from each subconsultant and subcontractor, and make available to OCFA upon request, written express waivers by each subconsultant and subcontractor of the right of subrogation against the OCFA, its officials, officers, employees, agents and volunteers, and policy endorsements of each of its subconsultants' and subcontractors' insurance policies waiving any rights of subrogation against the OCFA, its officials, officers, employees, agents and volunteers insurer. All such waivers and endorsements shall be obtained prior to commencement of any Services by each subconsultant or subcontractor.

6.7 Evidence of Coverage. Concurrently with the execution of the Agreement, Firm shall deliver certificates of insurance together with original endorsements affecting each of the insurance policies required to be maintained by Firm by this Section 5. Firm shall promptly furnish, at OCFA's request, copies of actual policies including all declaration pages, endorsements, exclusions and any other policy documents OCFA requires to verify coverage.

6.7.1 Required insurance policies shall not be in compliance if they include any limiting provision or endorsement that has not been submitted to the OCFA for written approval.

6.7.2 Authorized Signatures. The certificates of insurance and original endorsements for each insurance policy shall be signed by a person authorized by that insurer to bind coverage on its behalf.

6.7.3 Renewal/Replacement Policies. At least fifteen (15) days prior to the expiration of any policy required by this Agreement, evidence of insurance showing that such insurance coverage has been renewed or extended shall be filed with the OCFA. If such coverage is cancelled or reduced and not replaced immediately so as to avoid a lapse in the required coverage, Firm shall, within ten (10) days after receipt of written notice of such cancellation or reduction of coverage, file with the OCFA evidence of insurance showing that the required insurance has been reinstated or has been provided through another insurance company or companies meeting all requirements of this Agreement.

6.8 Requirements Not Limiting. Requirement of specific coverage or minimum limits contained in this section are not intended as a limitation on coverage, limits, or other requirements, or a waiver of any coverage normally provided by any insurance. The insurance obligations under this Agreement shall be: (1) all the insurance coverage and/or limits carried by or available to Firm; or (2) the minimum insurance coverage requirements and/or limits shown in this Agreement; whichever is greater. Any insurance proceeds in excess of or broader than the minimum required coverage and/or

minimum required limits, which are applicable to a given loss, shall be available to the OCFA. No representation is made that the minimum insurance requirements of this Agreement are sufficient to cover the obligations of Firm under this Agreement. Nothing in this section shall be construed as limiting in any way the indemnification provision contained in this Agreement, or the extent to which Consultant may be held responsible for losses of any type or amount.

6.9 Enforcement of Agreement (Non-Estoppel). Firm acknowledges and agrees that actual or alleged failure on the part of the OCFA to inform Firm of any non-compliance with any of the insurance requirements set forth in this Agreement imposes no additional obligation on the OCFA nor does it waive any rights hereunder.

6.10 Insurance for Subconsultants. If OCFA approves the use of subconsultants or subcontractors for the performance of any portion of the Services, then Firm shall be responsible for causing each approved subconsultant and subcontractor to procure and maintain insurance in the same types and amounts required for Firm, and in full compliance with the insurance requirements set forth in this Agreement, except as otherwise authorized in writing by the Contract Manager.

6.10.1 Delivery of Evidence of Subcontractor Insurance. Upon request of OCFA, Firm shall deliver to OCFA all certificates of insurance and endorsements required from subcontractors and subconsultants. (Note: Firm's duty to obtain all required insurance for subcontractors and subconsultants required under this Agreement applies whether or not OCFA requests delivery of evidence of such coverage.)

6.11 Other Insurance Requirements. The following terms and conditions shall apply to the insurance policies required of Firm and its subconsultants and subcontractors, if any, pursuant to this Agreement:

6.11.1 Firm shall provide immediate written notice to OCFA if (1) any of the insurance policies required herein are terminated, cancelled, suspended, or nonrenewed (2) the limits of any of the insurance coverages required herein are reduced; (3) any required insurance coverage is reduced below the required minimum limits through claims or otherwise, or (4) the deductible or self-insured retention is increased.

6.11.2 All insurance coverage and limits required under this Agreement are intended to apply to each insured, including additional insureds, against whom a claim is made or suit is brought to the full extent of the policies. Nothing contained in this Agreement or any other agreement relating to the OCFA or its operations shall limit the application of such insurance coverage.

6.11.3 None of the insurance coverages required herein will be in

compliance with the requirements of this section if they include any limiting endorsement which substantially impairs the coverages set forth herein (e.g., elimination of contractual liability or reduction of discovery period), unless the endorsement has first been submitted to the OCFA and approved in writing.

6.11.4 Certificates of insurance will not be accepted in lieu of required endorsements, and submittal of certificates without required endorsements may delay the Project. It is Firm's obligation to ensure timely compliance with all insurance submittal requirements as provided herein and Firm agrees to reimburse OCFA for any losses resulting from its failure, or its subconsultants' or subcontractors' failure, to timely comply with the requirements of this Agreement.

6.11.5 Firm agrees to ensure that subconsultants and subcontractors, if any, and any other parties involved with the Project who are brought onto or involved in the Project by Firm, provide the same minimum insurance coverage required of Firm. Firm agrees to monitor and review all such coverage and assumes all responsibility for ensuring that such coverage is provided in conformity with the requirements of this section. Firm agrees that upon request, all agreements with, and evidence of insurance from, subconsultants and subcontractors and others engaged in performing any Services will be submitted to the OCFA for review.

6.11.6 Firm agrees to provide immediate written notice to OCFA of any claim, demand or loss arising out of the Services performed under this Agreement and for any other claim, demand or loss which may reduce the insurance available to an amount less than required by this Agreement.

6.12 Indemnification.

To the fullest extent permitted by law, Firm shall defend (at Firm's sole cost and expense with legal counsel reasonably acceptable to OCFA), indemnify and hold the OCFA, its board members, officials, officers, employees, agents and volunteers, free and harmless from any and all claims, demands, orders, causes of action, costs, expenses, liabilities, losses, penalties, judgments, arbitration awards, settlements, damages or injuries of any kind, in law or in equity, including but not limited to property or persons, including wrongful death, (collectively "Claims") in any manner arising out of, pertaining to, related to, or incident to any alleged acts, errors or omissions, or willful misconduct of Firm, its officers, directors, employees, subconsultants, subcontractors, agents or invitees in connection with performance under this Agreement, or in any manner arising out of, pertaining to, related to, or incident to an alleged breach of this Agreement, including without limitation the payment of all consequential damages, expert witness fees and attorneys' fees and other related costs and expenses.

Notwithstanding the foregoing, and only to the extent that the Services

performed by Firm are subject to California Civil Code Section 2782.8, the above indemnity shall be limited, to the extent required by Civil Code Section 2782.8, to claims that arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the Firm.

Under no circumstances shall the insurance requirements and limits set forth in this Agreement be construed to limit Firm's indemnification obligation or other liability hereunder. Notwithstanding the foregoing, such obligation to defend, hold harmless and indemnify the OCFA, its board members officials, officers, employees, agents and volunteers, shall not apply to the extent that such Claims are caused by the sole negligence or willful misconduct of that indemnified party.

7. RECORDS AND REPORTS

7.1 Reports

Firm shall periodically prepare and submit to the Contract Officer such reports concerning the performance of the Services required by this Agreement as the Contract Officer shall require.

7.2 Records

Firm shall keep such books and records as shall be necessary to properly perform the Services required by this Agreement and upon 72-hours advance notice, enable the Contract Officer to evaluate the performance of such Services for the purpose of compliance with the terms and conditions included in this Agreement. Except as provided in Section 7.5, the Contract Officer shall have full and free access to such books and records, including the right to inspect, copy, audit and make records and transcripts from such records.

7.3 Omitted

7.4 Release of Documents

All drawings, specifications, reports, records, documents and other materials prepared by Firm in the performance of Services under this Agreement shall not be released publicly without the prior written approval of the Contract Officer.

7.5 Confidential Materials

Notwithstanding anything to the contrary in this Agreement, the Firm shall be the sole owner of Firm's work papers and of any other documents, data or information which are required to be maintained confidential from OCFA by one or more rules of

professional conduct governing the Firm's profession(s) (collectively, the "Confidential Materials"). Neither the OCFA nor the Contract Officer shall have access to the Confidential Materials except as may otherwise be required by order issued by a court of competent jurisdiction.

8. ENFORCEMENT OF AGREEMENT

8.1 California Law

This Agreement shall be construed and interpreted both as to validity and to performance of the parties in accordance with the laws of the State of California. Legal actions concerning any dispute, claim or matter arising out of or in relation to this Agreement shall be instituted in the Superior Court of the County of Orange, State of California, or any other appropriate court in such county, and Firm covenants and agrees to submit to the personal jurisdiction of such court in the event of such action.

8.2 Waiver

No delay or omission in the exercise of any right or remedy of a non-defaulting party on any default shall impair such right or remedy or be construed as a waiver. No consent or approval of a party shall be deemed to waive or render unnecessary such party's consent to or approval of any subsequent act of the other party. Any waiver by either party of any default must be in writing and shall not be a waiver of any other default concerning the same or any other provision of this Agreement.

8.3 Rights and Remedies are Cumulative

Except with respect to rights and remedies expressly declared to be exclusive in this Agreement, the rights and remedies of the parties are cumulative and the exercise by either party of one or more of such rights or remedies shall not preclude the exercise by it, at the same or different times, of any other rights or remedies for the same default or any other default by the other party.

8.4 Legal Action

In addition to any other rights or remedies, either party may take legal action, in law or in equity, to cure, correct or remedy any default, to recover damages for any default, to compel specific performance of this Agreement, to obtain injunctive relief, a declaratory judgment, or any other remedy consistent with the purposes of this Agreement.

8.5 Termination Prior to Expiration of Term

OCFA reserves the right to terminate this Agreement at any time, with or without cause, upon thirty (30) days written notice to Firm, except that where termination is due to the fault of the Firm and constitutes an immediate danger to health, safety and general welfare, the period of notice shall be such shorter time as may be appropriate. Upon receipt of the notice of termination, Firm shall immediately cease all Services hereunder except such as may be specifically approved by the Contract Officer. Firm shall be entitled to compensation for all Services rendered prior to receipt of the notice of termination and for any Services authorized by the Contract Officer thereafter.

Firm may terminate this Agreement, with or without cause, upon thirty (30) days written notice to OCFA.

8.6 Termination for Default of Firm

If termination is due to the failure of the Firm to fulfill its obligations under this Agreement, OCFA may take over the work and prosecute the same to completion by contract or otherwise, and the Firm shall be liable to the extent that the total cost for completion of the Services required hereunder exceeds the compensation herein stipulated, provided that OCFA shall use reasonable efforts to mitigate damages, and OCFA may withhold any payments to the Firm for the purpose of set-off or partial payment of the amounts owed to OCFA.

8.7 Attorneys' Fees

If either party commences an action against the other party arising out of or in connection with this Agreement or its subject matter, the prevailing party shall be entitled to recover reasonable attorneys' fees and costs of suit from the losing party.

9. OCFA OFFICERS AND EMPLOYEES; NON-DISCRIMINATION

9.1 Non-Liability of OCFA Officers and Employees

No officer or employee of OCFA shall be personally liable to the Firm, or any successor-in-interest, in the event of any default or breach by OCFA or for any amount which may become due to the Firm or its successor, or for breach of any obligation of the terms of this Agreement.

9.2 Covenant Against Discrimination

Firm covenants that, by and for itself, its heirs, executors, assigns, and all persons claiming under or through them, that there shall be no discrimination or segregation in the performance of or in connection with this Agreement regarding any person or group of persons on account of race, color, creed, religion, sex, marital status,

national origin, or ancestry. Firm shall take affirmative action to ensure that applicants and employees are treated without regard to their race, color, creed, religion, sex, marital status, national origin, or ancestry.

10. MISCELLANEOUS PROVISIONS

10.1 Confidentiality

Information obtained by Firm in the performance of this Agreement shall be treated as strictly confidential and shall not be used by Firm for any purpose other than the performance of this Agreement without the written consent of OCFA.

10.2 Notice

Any notice, demand, request, consent, approval, or communication either party desires or is required to give to the other party or any other person shall be in writing and either served personally or sent by pre-paid, first-class mail to the address set forth below. Either party may change its address by notifying the other party of the change of address in writing. Notice shall be deemed communicated forty-eight (48) hours from the time of mailing if mailed as provided in this Section.

Orange County Fire Authority
Attention: Sara Kennedy
1 Fire Authority Road
Irvine, CA 92602

WITH COPY TO:
David E. Kendig, General Counsel
Woodruff, Spradlin & Smart
555 Anton Blvd. Suite 1200
Costa Mesa, CA 92626

To Firm:

Nori Yokozuka, General Counsel
8000 Maryland Ave, Suite 350
Clayton, MO 63105

10.2 Integrated Agreement

This Agreement contains all of the agreements of the parties and cannot be amended or modified except by written agreement.

10.3 Amendment

This Agreement may be amended at any time by the mutual consent of the parties by an instrument in writing.

10.4 Severability

In the event that any one or more of the phrases, sentences, clauses, paragraphs, or sections contained in this Agreement shall be declared invalid or unenforceable by valid judgment or decree of a court of competent jurisdiction, such invalidity or unenforceability shall not affect any of the remaining phrases, sentences, clauses, paragraphs, or sections of this Agreement, which shall be interpreted to carry out the intent of the parties hereunder.

10.5 Corporate Authority

The persons executing this Agreement on behalf of the parties hereto warrant that they are duly authorized to execute this Agreement on behalf of said parties and that by so executing this Agreement the parties hereto are formally bound to the provisions of this Agreement.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the dates stated below.

**“OCFA”
ORANGE COUNTY FIRE AUTHORITY**

Date: _____

By: _____

Sara Kennedy, CPPB
Purchasing Manager

APPROVED AS TO FORM.

ATTEST:

By: _____
David E. Kendig
General Counsel

Maria D. Huizar
Clerk of the Board

Date: _____

**“FIRM”
PERIMETER SOLUTIONS LP**

Date: _____

By: _____
Name:
Title:

Date: _____

By: _____
Nori Yokozuka
General Counsel

EXHIBIT “A”
Scope of Services to be Provided

A.1 CONTRACT PERIOD

July 1, 2024 through December 31, 2024.

A.2 PROJECT DESCRIPTION

Purpose: To provide applicable equipment, retardant product, and personnel to support daytime and mobile night refilling of fixed-tank helicopters with USFS qualified long-term retardant.

Scope: Orange County Fire Authority (OCFA) has requested Perimeter Solutions to provide applicable equipment and USFS qualified long-term retardant during 2023 to support 2 CH-46 & 1 S-61 aircraft as needed. Perimeter Solutions will provide equipment for mixing and delivery of fire retardant into aircraft between the hours of 8am and 8pm with potential additional hours or extended night operations. Exact response times are based on ordering time, location, and fire congested area logistics.

Items to be provided by Perimeter Solutions based on response time:

- Mobile Retardant Helicopter Base dedicated for MAP (mandatory availability period)
- PHOS-CHEK 259-Fx USFS Qualified Product List (QPL) fixed tank helicopter approved
- Equipment, Freight & Labor (5 personnel) to support up to 90,000 gallons per 12-hour operational period.

Operational Requirements Provided by Orange County:

- Must have pre-designated area large enough to allow safe accessibility and operations of heavy equipment. (ex. A Football field).
- Water at a minimum rate of 350+ Gallons per Minute (GPM) to the MRB. This may include providing water from: water tenders, pressurized source or, drafting source.
- The MRB site will be at least 300 feet from any waterway, including seasonal lakes or streams, if water is present
- Any mixed or residual retardant is deemed the property of acting Agency, the Agency will work with Perimeter Solutions for effective use or relocation of mixed product.

A.3 PRICING

Firm will provide a mobile retardant base in the manner and at the rates as specified in the proposal and detailed in the table below. The daily standby rate includes availability of the Firm from the period of 0800 – 2000 hours. Operations after this period will be subject to overtime rates up to the daily maximum.

Item	Description	Rate
Mobile Retardant Base – Standby	Daily Operating Shift (12-Hr)	\$7,840
Mobile Retardant Base - OT	Hourly (up to a Daily Maximum of \$14,000)	\$2,240
Phos-Chek 259-Fx	Based on the 2023 USFS Price List. Product deemed sold once mixed.	Actual
Transportation for Four Trucks	Estimated \$2,000 one-way per truck	Actual
Additional Options	Description	Rate
Water Tender	Daily Operating Shift (12-Hr)	\$2,000
Fixed Location Dip Tank & Containment Berm – Staffed	Daily Operating Shift (12-Hr)	\$800
Fixed Location Dip Tank & Containment Berm – Unstaffed	Daily Operating Shift (12-Hr)	\$500

**ORANGE COUNTY FIRE AUTHORITY
PROFESSIONAL SERVICES AGREEMENT**

THIS AGREEMENT FOR PROFESSIONAL SERVICES (“Agreement”) is made and entered into this ___ day of _____, _____ by and between the Orange County Fire Authority, a joint powers agency created pursuant to the California Joint Exercise of Powers Act (Gov’t Code §§ 6500 *et seq.*) (“OCFA”), and _____ (“Contractor”). OCFA and Contractor are sometimes individually referred to herein as a “Party” and collectively as the “Parties”.

RECITALS

WHEREAS, OCFA requires the services of a qualified Contractor to provide Air Tactical Group Supervisor services in support of incident goals and objectives, hereinafter referred to as “Project”; and

WHEREAS, Contractor is fully qualified and certified to provide the necessary services for the Project and desires to provide such services; and

WHEREAS, OCFA desires to retain the services of Contractor for the Project.

NOW, THEREFORE, in consideration of the promises and mutual agreements contained herein, OCFA agrees to employ and does hereby retain Contractor and Contractor agrees to provide professional services as follows:

AGREEMENT

1. PROFESSIONAL SERVICES

1.1 Scope of Services

In compliance with all terms and conditions of this Agreement, Contractor shall provide those services specified in the Scope of Services, attached hereto as Exhibit “A”, which includes by reference and by addendum any amendments, addendums, change orders, or modifications mutually agreed upon by the parties hereto (“Services” or “Work”). Contractor warrants that all Services shall be performed in a competent, professional and satisfactory manner in accordance with all standards prevalent in the same profession in the State of California. Contractor represents and warrants that he/she possesses a sufficient skill and experience to perform the Services. All Services shall be completed to the reasonable satisfaction of the OCFA. In the event of any inconsistency between the terms contained in the Scope of Services, and/or the terms set forth in the main body of this Agreement, the terms set forth in the main body of this Agreement and then the Scope of Services shall govern, in that order.

1.2 Compliance with Law

All Services rendered hereunder shall be provided in accordance with all laws, ordinances, resolutions, statutes, rules, and regulations of OCFA and any federal, state or local governmental agency of competent jurisdiction.

1.3 Licenses and Permits

Contractor shall obtain at its sole cost and expense such licenses, permits and approvals as may be required by law for the performance of the Services required by this Agreement.

1.4 Familiarity with Work

By executing this Agreement, Contractor warrants that he/she (a) has thoroughly investigated and considered the Work to be performed, (b) has carefully considered how the Work should be performed, and (c) fully understands the facilities, difficulties and restrictions attending performance of the Work under this Agreement.

1.5 Care of Work

Contractor shall adopt and follow reasonable procedures and methods during the term of the Agreement to prevent loss or damage to materials, papers or other components of the Work, and shall be responsible for all such damage until acceptance of the work by OCFA, except such loss or damages as may be caused by OCFA's own negligence.

1.6 Additional Services

Contractor shall perform services in addition to those specified in the Scope of Services when directed to do so in writing by the OCFA Purchasing Manager, provided that Contractor shall not be required to perform any additional services without compensation. Any additional compensation not exceeding fifteen percent (15%) of the agreement amount must be approved in writing by the OCFA Purchasing Manager. Any greater increase must be approved in writing by the Executive Committee of the OCFA Board of Directors.

2. TIME FOR COMPLETION

The time for completion of the Services to be performed by Contractor is an essential condition of this Agreement. Contractor shall prosecute regularly and diligently the Work of this Agreement according to the schedules set forth in the Scope of Services. Contractor shall not be accountable for delays in the progress of its Work caused by any condition beyond its control and without the fault or negligence of Contractor. Delays shall not entitle Contractor to any additional compensation regardless of the party responsible for the delay.

3. COMPENSATION OF CONTRACTOR

3.1 Compensation of Contractor

For the Services rendered pursuant to this Agreement, Contractor shall be compensated and reimbursed, in accordance with the pricing set forth in the Scope of Services (Exhibit "A") in an amount not to exceed Two Hundred Fifty Thousand Dollars (\$250,000).

3.2 Method of Payment

The Contractor shall invoice OCFA twice a month, the 1st and 16th, for the previous 15 day period. The Contractor shall submit to OCFA in the form approved by OCFA's Finance Manager, an invoice for Services rendered prior to the date of the invoice. OCFA shall pay Contractor for all expenses stated thereon which are approved by OCFA consistent with this Agreement, within thirty (30) days of receipt of Contractor's invoice.

3.3 Changes

In the event any change or changes in the work is requested by OCFA, the parties hereto shall execute an addendum to this Agreement, setting forth with particularity all terms of such addendum, including, but not limited to, any additional fees. Addenda may be entered into:

A. To provide for revisions or modifications to documents or other work product or work when documents or other work product or work is required by the enactment or revision of law subsequent to the preparation of any documents, other work product or work;

B. To provide for additional services not included in this Agreement or not customarily furnished in accordance with generally accepted practice in Contractor's profession.

3.4 Appropriations

This Agreement is subject to and contingent upon funds being appropriated therefore by the OCFA Board of Directors for each fiscal year covered by the Agreement. If such appropriations are not made, this Agreement shall automatically terminate without penalty to OCFA.

4. PERFORMANCE SCHEDULE

4.1 Time of Essence

Time is of the essence in the performance of this Agreement.

4.2 Schedule of Performance

All Services rendered pursuant to this Agreement shall be performed within the time periods prescribed in the Scope of Services (Exhibit "A"). The extension of any time period specified in Exhibit "A" must be approved in writing by the Contract Officer.

4.3 Force Majeure

The time for performance of Services to be rendered pursuant to this Agreement may be extended because of any delays due to unforeseeable causes beyond the control and without the fault or negligence of the Contractor, including, but not restricted to, acts of God or of a public enemy, acts of the government, fires, earthquakes, floods, epidemic, quarantine restrictions, riots, strikes, freight embargoes, and unusually severe weather if the Contractor shall within ten (10) days of the commencement of such condition notify the Contract Officer who shall thereupon ascertain the facts and the extent of any necessary delay, and extend the time for performing the Services for the period of the enforced delay when and if in the Contract Officer's judgment such delay is justified, and the Contract Officer's determination shall be final and conclusive upon the parties to this Agreement.

4.4 Term

This Agreement shall continue in full force and effect through December 31, 2024 ("Initial Term"), except as may be extended at the sole discretion of OCFA, and unless earlier terminated in accordance with Sections 8.5 or 8.6 of this Agreement.

5. COORDINATION OF WORK

5.1 [Reserved]

5.2 Contract Officer

The Primary Contract Officer shall be Tim Perkins, Division Chief – Special Operations, and the Secondary Contract Officer shall be Brian Fennessy, Fire Chief, unless otherwise designated in writing by OCFA. It shall be the Contractor's responsibility to keep the Contract Officer fully informed of the progress of the performance of the Services and Contractor shall refer any decisions that must be made by OCFA to the Contract Officer. Unless otherwise specified herein, any approval of OCFA required hereunder shall mean the approval of the Contract Officer.

5.3 Prohibition Against Subcontracting or Assignment

5.3.1 No Subcontracting Without Prior Approval. The experience, knowledge, capability and reputation of the Contractor were a substantial inducement for OCFA to enter into this Agreement. Therefore, Contractor shall not

contract with any other individual or entity to perform in whole or in part the Services required hereunder.

5.4 Independent Contractor

5.4.1 The legal relationship between the Parties is that of an independent contractor, and nothing herein shall be deemed to make Contractor, an OCFA employee. During the performance of this Agreement, Contractor shall act in an independent capacity and shall not act as an OCFA officer or employee. Contractor will determine the means, methods and details of performing the Services subject to the requirements of this Agreement. Neither OCFA nor any of its officials, officers, employees, agents or volunteers shall have control over the conduct of Contractor, except as set forth in this Agreement. Contractor, shall not maintain a permanent office or fixed business location at OCFA's offices. OCFA shall not in any way or for any purpose be deemed to be a partner of Contractor in its business or otherwise a joint venturer or a member of any joint enterprise with Contractor.

5.4.2 Contractor shall not incur or have the power to incur any debt, obligation, or liability against OCFA, or bind OCFA in any manner.

5.4.3 No OCFA benefits shall be available to Contractor in connection with the performance of any Work or Services under this Agreement. Except for professional fees paid to Contractor as provided for in this Agreement, OCFA shall not pay salaries, wages, or other compensation to Contractor for the performance of any Work or Services under this Agreement. OCFA shall not be liable for compensation or indemnification to Contractor for injury or sickness arising out of performing any Work or Services hereunder.

5.6 Employee Retirement System Eligibility Indemnification

5.6.1 [Reserved]

5.6.2 Notwithstanding any other agency, state or federal policy, rule, regulation, law or ordinance to the contrary, Contractor shall not qualify for or become entitled to, and hereby agree to waive any claims to, any compensation, benefit, or any incident of employment by OCFA, including but not limited to eligibility to enroll in any employee retirement system as an employee of OCFA and entitlement to any contribution to be paid by OCFA for employer contribution and/or employee contributions for employee retirement system benefits.

6. INSURANCE AND INDEMNIFICATION

6.1 Compliance with Insurance Requirements. Contractor shall obtain, maintain, and keep in full force and effect during the term of this Agreement, at its sole cost and expense, and in a form and content satisfactory to OCFA, all insurance

required under this section. Contractor shall not commence any Services under this Agreement unless and until it has provided evidence satisfactory to OCFA that it has secured all insurance required under this section. If Contractor's existing insurance policies do not meet the insurance requirements set forth herein, Contractor agrees to amend, supplement or endorse the policies to meet all requirements herein.

6.2 Types of Insurance Required. Without limiting the indemnity provisions set forth in this Agreement, Contractor shall obtain and maintain in full force and effect during the term of this Agreement, including any extension thereof, the following policies of insurance:

6.2.1 Professional Liability/Technology Errors and Omissions Insurance ("PLI"). Contractor shall obtain and maintain PLI insurance applicable to each licensed profession practiced by Contractor. Contractor shall maintain PLI insurance with per-claim and aggregate limits no lower than one million dollars (\$1,000,000.00) each occurrence and two million dollars (\$2,000,000.00) aggregate. Covered professional services shall specifically include all Services to be performed under the Agreement and the policy shall be endorsed to delete any exclusions that may exclude coverage for claims within the minimum PLI Limits for the Services to be performed under this Agreement.

6.2.1.1 The PLI policy shall be endorsed to delete any Contractual Liability Exclusion. The PLI shall include contractual liability coverage applicable to this Agreement. The policy must "pay on behalf of" the insured, and include a provision establishing the insurer's duty to defend the insured.

6.2.1.2 If the PLI policy of insurance is written on a "claims-made" basis, the policy shall be continued in full force and effect at all times during the term of this Agreement, and for a period of three (3) years from the date of the completion of all Services provided hereunder (the "PLI Coverage Period"). If any PLI policy is replaced, cancelled, non-renewed, discontinued, or otherwise terminated, or if the limits of a PLI policy are reduced or the available coverage depleted below the required minimum coverage amounts for any reason during the PLI Coverage Period, ATGS shall immediately obtain replacement PLI coverage meeting the requirements of this Section 6.2.1. Such replacement coverage shall satisfy all requirements herein, and shall include coverage for the prior acts or omissions of ATGS during the time period during which any Services were performed. The coverage shall be evidenced by either a new policy evidencing no gap in coverage, or by obtaining separate extended "tail" coverage with the present or new carrier or other insurance arrangements providing for complete coverage, either of which shall be subject to the written approval by the OCFA.

6.2.1.3 If the PLI policy is written on an "occurrence" basis, the policy shall be continued in full force and effect during the term of this Agreement, or until completion of the Services provided for in this Agreement, whichever is later. In the event of termination of the PLI policy during this period, new coverage shall immediately

be obtained, and written evidence of the policy shall be immediately provided to OCFA, to ensure PLI coverage during the entire course of performing the Services.

6.2.1.4 Contractor shall not perform any Services at any time during which required types or amounts of PLI insurance are not in effect, and OCFA shall have no obligation to pay Contractor for Services performed while required PLI insurance is not in effect.

6.2.2 Automobile Liability Insurance. Contractor shall maintain, in full force and effect throughout the term of this Agreement, a policy of personal Automobile liability insurance in compliance with all statutory requirements applicable in the State of California.

6.3 Acceptability of Insurers. Each insurance policy required by this section shall be issued by a licensed company authorized to transact business by the Department of Insurance for the State of California with a current rating of A-:VII or better (if an admitted carrier), or a current rating of A:X or better (if offered by a non-admitted insurer listed on the State of California List of Approved Surplus Line Insurers (LASLI)), by the latest edition of A.M. Best's Key Rating Guide, except that the OCFA will accept workers' compensation insurance from the State Compensation Fund. In the event the OCFA determines that the Services to be performed under this Agreement creates an increased or decreased risk of loss to the OCFA, the Contractor agrees that the minimum limits of the insurance policies may be changed accordingly upon receipt of written notice from the OCFA.

6.3.1 Contractor shall immediately replace any insurer whose A.M. Best rating drops below the levels specified herein with an insurer that meets the minimum requirements herein.

6.4 Specific Insurance Provisions and Endorsements. Required insurance policies shall not be in compliance if they include any limiting provision or endorsement that has not been submitted to the OCFA for written approval. Required insurance policies shall contain the following provisions, or Contractor shall provide endorsements on forms approved by the Contractor to add the following provisions to the insurance policies:

6.4.1 [Reserved]

6.4.2 Notice of Cancellation: Each policy of any type shall be endorsed to provide that coverage shall not be suspended, voided, cancelled, or modified, or reduced in coverage or in limits, except after thirty (30) days prior written notice has been provided to the OCFA. Notwithstanding the foregoing, if coverage is to be suspended, voided, or cancelled because of Contractor's failure to pay the insurance premium, the notice provided by the insurer to OCFA shall be by not less than ten (10) days prior written notice. (A statement that notice will be provided "in accordance with the policy terms" or words to that effect is inadequate to meet the requirements of this Section).

6.4.2.1 Pre-Payment of Policy Premium. If for any reason an insurer declines to issue an endorsement certifying that it will notify OCFA in accordance with section 6.4.2, Contractor shall either obtain insurance from another insurer who will provide the required notice endorsement or shall provide evidence satisfactory to OCFA that the entire policy premium for the full term of that policy has been pre-paid such that the risk of non-payment of premiums during the term of the policy has been eliminated.

6.4.3 ACORD Forms Will Not Be Accepted in Lieu of Endorsements. By executing this Agreement, Contractor certifies that it has – prior to execution of this Agreement - confirmed that its insurance company will issue each of the endorsements required by this Agreement. Contractor also certifies that it understands that "ACORD" Certificate of Liability Insurance forms will not be accepted in lieu of required endorsements.

6.5 Deductibles and Self-Insured Retentions. Any deductible or self-insured retention must be approved in writing by the OCFA in advance. The decision whether to approve or withhold approval of a deductible or self-insured retention shall be made by the OCFA in the OCFA's sole and absolute discretion.

6.6 [Reserved]

6.7 Evidence of Coverage. Concurrently with the execution of the Agreement, Contractor shall deliver certificates of insurance together with original endorsements affecting each of the insurance policies required to be maintained by Contractor by this Section 6. Contractor shall promptly furnish, at OCFA's request, copies of actual policies including all declaration pages, endorsements, exclusions and any other policy documents OCFA requires to verify coverage.

6.7.1 Required insurance policies shall not be in compliance if they include any limiting provision or endorsement that has not been submitted to the OCFA for written approval.

6.7.2 Authorized Signatures. The certificates of insurance and original endorsements for each insurance policy shall be signed by a person authorized by that insurer to bind coverage on its behalf.

6.7.3 Renewal/Replacement Policies. At least fifteen (15) days prior to the expiration of any policy required by this Agreement, evidence of insurance showing that such insurance coverage has been renewed or extended shall be filed with the OCFA. If such coverage is cancelled or reduced and not replaced immediately so as to avoid a lapse in the required coverage, Contractor shall, within ten (10) days after receipt of written notice of such cancellation or reduction of coverage, file with the OCFA evidence of insurance showing that the required insurance has been reinstated or has

been provided through another insurance company or companies meeting all requirements of this Agreement.

6.8 Requirements Not Limiting. Requirement of specific coverage or minimum limits contained in this section are not intended as a limitation on coverage, limits, or other requirements, or a waiver of any coverage normally provided by any insurance. Nothing in this section shall be construed as limiting in any way the indemnification provision contained in this Agreement, or the extent to which Contractor may be held responsible for losses of any type or amount.

6.9 Enforcement of Agreement (Non-Estoppel). Contractor acknowledges and agrees that actual or alleged failure on the part of the OCFA to inform Contractor of any non-compliance with any of the insurance requirements set forth in this Agreement imposes no additional obligation on the OCFA nor does it waive any rights hereunder.

6.10 [Reserved]

6.11 Other Insurance Requirements. The following terms and conditions shall apply to the insurance policies required of Contractor pursuant to this Agreement:

6.11.1 Contractor shall provide immediate written notice to OCFA if (1) any of the insurance policies required herein are terminated, cancelled, suspended, or non-renewed (2) the limits of any of the insurance coverages required herein are reduced; (3) any required insurance coverage is reduced below the required minimum limits through claims or otherwise, or (4) the deductible or self-insured retention is increased.

6.11.2 All insurance coverage and limits required under this Agreement are intended to apply to each insured, including additional insureds, against whom a claim is made or suit is brought to the full extent of the policies. Nothing contained in this Agreement or any other agreement relating to the OCFA or its operations shall limit the application of such insurance coverage.

6.11.3 None of the insurance coverages required herein will be in compliance with the requirements of this section if they include any limiting endorsement which substantially impairs the coverages set forth herein (e.g., elimination of contractual liability or reduction of discovery period), unless the endorsement has first been submitted to the OCFA and approved in writing.

6.11.4 Certificates of insurance will not be accepted in lieu of required endorsements, and submittal of certificates without required endorsements may delay the Project. It is Contractor's obligation to ensure timely compliance with all insurance submittal requirements as provided herein and Contractor agrees to reimburse

OCFA for any losses resulting from its failure to timely comply with the requirements of this Agreement.

6.11.5 [Reserved]

6.11.6 Contractor agrees to provide immediate written notice to OCFA of any claim, demand or loss arising out of the Services performed under this Agreement and for any other claim, demand or loss which may reduce the insurance available to an amount less than required by this Agreement.

7. RECORDS AND REPORTS

7.1 Reports

Contractor shall periodically prepare and submit to the Contract Officer such reports concerning the performance of the Services required by this Agreement as the Contract Officer shall require.

7.2 Records

Contractor shall keep such books and records as shall be necessary to properly perform the Services required by this Agreement and enable the Contract Officer to evaluate the performance of such Services. Except as provided in Section 7.5, the Contract Officer shall have full and free access to such books and records at all reasonable times, including the right to inspect, copy, audit and make records and transcripts from such records.

7.3 Ownership of Documents

Except as provided in Section 7.5, all drawings, specifications, reports, records, documents and other materials prepared by Contractor in the performance of this Agreement shall be the property of OCFA and shall be delivered to OCFA upon request of the Contract Officer or upon the termination of this Agreement, and Contractor shall have no claim for further employment or additional compensation as a result of the exercise by OCFA of its full rights or ownership of the documents and materials hereunder. Contractor may retain copies of such documents for its own use. Contractor shall have an unrestricted right to use the concepts embodied therein.

7.4 Release of Documents

All drawings, specifications, reports, records, documents and other materials prepared by Contractor in the performance of Services under this Agreement shall not be released publicly without the prior written approval of the Contract Officer.

7.5 Confidential Materials

Notwithstanding anything to the contrary in this Agreement, the Contractor shall be the sole owner of Contractor's work papers and of any other documents, data or information which are required to be maintained confidential from OCFA by one or more rules of professional conduct governing the Contractor's profession(s) (collectively, the "Confidential Materials"). Neither the OCFA nor the Contract Officer shall have access to the Confidential Materials except as may otherwise be required by order issued by a court of competent jurisdiction.

8. ENFORCEMENT OF AGREEMENT

8.1 California Law

This Agreement shall be construed and interpreted both as to validity and to performance of the parties in accordance with the laws of the State of California. Legal actions concerning any dispute, claim or matter arising out of or in relation to this Agreement shall be instituted in the Superior Court of the County of Orange, State of California, or any other appropriate court in such county, and Contractor covenants and agrees to submit to the personal jurisdiction of such court in the event of such action.

8.2 Waiver

No delay or omission in the exercise of any right or remedy of a non-defaulting party on any default shall impair such right or remedy or be construed as a waiver. No consent or approval of OCFA shall be deemed to waiver or render unnecessary OCFA's consent to or approval of any subsequent act of Contractor. Any waiver by either party of any default must be in writing and shall not be a waiver of any other default concerning the same or any other provision of this Agreement.

8.3 Rights and Remedies are Cumulative

Except with respect to rights and remedies expressly declared to be exclusive in this Agreement, the rights and remedies of the parties are cumulative and the exercise by either party of one or more of such rights or remedies shall not preclude the exercise by it, at the same or different times, of any other rights or remedies for the same default or any other default by the other party.

8.4 Legal Action

In addition to any other rights or remedies, either party may take legal action, in law or in equity, to cure, correct or remedy any default, to recover damages for any default, to compel specific performance of this Agreement, to obtain injunctive relief, a declaratory judgment, or any other remedy consistent with the purposes of this Agreement.

8.5 Termination Prior to Expiration of Term

OCFA reserves the right to terminate this Agreement at any time, with or without cause, upon thirty (30) days written notice to Contractor, except that where termination is due to the fault of the Contractor and constitutes an immediate danger to health, safety and general welfare, the period of notice shall be such shorter time as may be appropriate. Upon receipt of the notice of termination, Contractor shall immediately cease all Services hereunder except such as may be specifically approved by the Contract Officer. Contractor shall be entitled to compensation for all Services rendered prior to receipt of the notice of termination and for any Services authorized by the Contract Officer thereafter.

Contractor may terminate this Agreement, with or without cause, upon thirty (30) days written notice to OCFA.

8.6 Termination for Default of Contractor

[Reserved]

8.7 Attorneys' Fees

[Reserved]

9. OCFA OFFICERS AND EMPLOYEES; NON-DISCRIMINATION

9.1 Non-Liability of OCFA Officers and Employees

No officer or employee of OCFA shall be personally liable to the Contractor, or any successor-in-interest, in the event of any default or breach by OCFA or for any amount which may become due to the Contractor or its successor, or for breach of any obligation of the terms of this Agreement.

9.2 Covenant Against Discrimination

Contractor covenants that, by and for itself, its heirs, executors, assigns, and all persons claiming under or through them, that there shall be no discrimination or segregation in the performance of or in connection with this Agreement regarding any person or group of persons on account of race, color, creed, religion, sex, marital status, national origin, or ancestry.

10. MISCELLANEOUS PROVISIONS

10.1 Confidentiality

Information obtained by Contractor in the performance of this Agreement shall be treated as strictly confidential and shall not be used by Contractor for any purpose other than the performance of this Agreement without the written consent of OCFA.

10.2 Notice

Any notice, demand, request, consent, approval, or communication either party desires or is required to give to the other party or any other person shall be in writing and either served personally or sent by pre-paid, first-class mail to the address set forth below. Either party may change its address by notifying the other party of the change of address in writing. Notice shall be deemed communicated forty-eight (48) hours from the time of mailing if mailed as provided in this Section.

Orange County Fire Authority
Attention: Sara Kennedy
1 Fire Authority Road
Irvine, CA 92602

WITH COPY TO:
David E. Kendig, General Counsel
Woodruff, Spradlin & Smart
555 Anton Blvd. Suite 1200
Costa Mesa, CA 92626

To Contractor:

Name:
Attention:
Address:

10.2 Integrated Agreement

This Agreement contains all of the agreements of the parties and cannot be amended or modified except by written agreement.

10.3 Amendment

This Agreement may be amended at any time by the mutual consent of the parties by an instrument in writing.

10.4 Severability

In the event that any one or more of the phrases, sentences, clauses, paragraphs, or sections contained in this Agreement shall be declared invalid or unenforceable by valid judgment or decree of a court of competent jurisdiction, such invalidity or unenforceability shall not affect any of the remaining phrases, sentences, clauses, paragraphs, or sections of this Agreement, which shall be interpreted to carry out the intent of the parties hereunder.

10.5 Corporate Authority

The persons executing this Agreement on behalf of the parties hereto warrant that they are duly authorized to execute this Agreement on behalf of said parties and that by so executing this Agreement the parties hereto are formally bound to the provisions of this Agreement.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the dates stated below.

“OCFA”

ORANGE COUNTY FIRE AUTHORITY

Date: _____

By: _____
Sara Kennedy, CPPB
Purchasing Manager

APPROVED AS TO FORM.

ATTEST:

By: _____
David E. Kendig
General Counsel

Maria D. Huizar
Clerk of the Board

Date: _____

“CONTRACTOR”

Date: _____

By: _____

EXHIBIT "A"
Scope of Services

A1. Air Tactical Group Supervisor (ATGS) Position

A1.1 Position Overview

A1.1.1 As described in the "Standards for Aerial Supervision", as published by the National Wildfire Coordinating Group, "The ATGS coordinates incident airspace and manages incident air traffic. The ATGS is an airborne firefighter who coordinates, assigns, and evaluates the use of aerial resources in support of incident objectives. The ATGS is the link between ground personnel and incident aircraft. The ATGS must collaborate with ground personnel to develop and implement tactical and logistical missions on an incident. The ATGS must be proactive in communicating current and expected fire and weather conditions. The ATGS must provide candid feedback regarding the effectiveness of aviation operations and overall progress toward meeting incident objectives. The ATGS must also work with dispatch staff to coordinate the ordering, assignment, and release of incident aircraft in accordance with the needs of fire management and incident command personnel.

A1.1.2 On Initial Attack (IA) incidents (Type 4 and 5), the ATGS will size up, prioritize, and coordinate the response of aerial and ground resources until a qualified Incident Commander (IC) arrives. On complex incidents (Type 1, 2, or 3), the ATGS will coordinate and prioritize the use of aircraft between several divisions or groups while maintaining communications with operations personnel and aircraft bases (fixed- or rotor-wing).

A1.1.3 In the Incident Command System (ICS), the ATGS works for the IC on initial attack and the Operations Section Chief (OSC), Air Operations Branch Director, or operational designee on extended attack. The ATGS supervises the Leadplane Pilot (LPIL), Aerial Supervision Module (ASM), and the Helicopter Coordinator (HLCO) positions when activated. The ATGS may operate from an airplane or helicopter.

In the event the ATGS is utilized in an Aerial Supervision position subordinate to the ATGS position, HLCO (Helicopter Coordinator) or AITS (ASM Air Tactical Supervisor) the ATGS will perform those job duties as described in the current NWCG "SAS" (National Wildfire Coordinating Group "Standards for Aerial Supervision").

A1.2 Position Requirements

At a minimum, ATGS must possess previously held fire chief officer status and possess and maintain wildland Incident Qualifications and Certification System (IQCS) qualifications for the position of Division Supervisor and/or Air Tactical Group Supervisor.

A.2 ATGS Responsibilities

A2.1 Incident Response

A2.1.1 The ATGS will respond as part of the aircrew with the aircraft to wildland and all-hazards incidents. The ATGS will perform the duties described above and contained within the “Standards for Aerial Supervision”, as published by the National Wildfire Coordinating Group, in coordination with the Primary or Secondary Contract Officer and/or third parties providing air operations services, as directed by OCFA. The ATGS must be available at the site of the aircraft.

A2.1.2 The ATGS will provide wildland fire subject matter expertise for pre-attack, initial attack, and extended attack functions. Pre-attack services include evaluation of staffing, familiarization with maps, identification of potential cooperators, and other readiness activities.

A2.1.3 As delegated by OCFA, the ATGS will ensure day to day contract compliance on assigned aircraft and is responsible for communicating any discrepancies or recommendations to the Primary and/or Secondary Contract Officer.

A2.2 Communications

A2.2.1 As required by OCFA, the ATGS may serve as the primary point-of-contract (POC) with the OCFA Emergency Command Center for daily status and dispatching to initial attack response.

A2.2.2 The ATGS is responsible for developing and delivering pre and post incident briefings and After Action Reviews (AAR) for the air crews. Pre-incident briefings may include weather updates, incident status, pending orders, and other information as may be necessary to ensure all crew members required to deploy are able to.

A2.2.3 The ATGS is responsible for inter cockpit Crew Resource Management (CRM) with OCFA and third party provider crews, as applicable, for the purpose of fostering cohesive team function during the execution of incident objectives.

A2.3 Deliverables for IAA Aircraft

The ATSG will assist with the development of Incident Awareness and Assessment (IAA) deliverables for fire incidents. Deliverables may include maps, files for the Geographic Information Systems section, and infrared video, which will be provided to the incident. The ATSG will ensure the deliverables meet the specifications of what is required by the incident.

A2.4 Training

As requested by OCFA, provide informal and formal National Wildfire Coordinating Group (NWCG) wildland fire instruction. Informal training will be delivered during the course of the daily shift. Formal, classroom-style training will be scheduled and delivered outside the standard shift schedule.

A2.5 Schedules

A2.5.1 Daily Shift. The daily shift is twelve (12) hours, and will be coordinated through the Primary or Secondary Contract Officer.

A2.5.2 Aerial Firefighting Programs. Contractor services will be utilized in various aerial firefighting programs, which may operate from multiple locations including, but not limited to, the Joint Forces Training Base in Los Alamitos, California, and/or other locations throughout California. Program operations may include a requirement for twelve (12) or twenty-four (24) hour availability. Multiple programs may be in place simultaneously. The ATGS must be available on site at the designated base of operations, or other location as directed, for the duration of the daily shift.

A2.5.3 Staffing Coordination. The ATGS is responsible for coordinating all contract aircrew availability to ensure staffing is sufficient to meet the respective daily twelve (12) hour or twenty-four (24) hour availability requirements. The ATGS must communicate schedules and proposed changes to schedules to the Primary or Secondary Contract Officer.

A3. Compensation

A3.1 Daily Rate

A3.1.1 Standard Shift. The daily rate for the standard twelve (12) hour shift is \$2,500 and includes, but is not limited to, all staffing coordination activities, ATGS duties, informal training provided during the shift, formal training, and full day support for additional services as requested by OCFA. Contractor is responsible for travel to and from the work location, food, and lodging. Hours worked totaling less than the daily rate will be compensated at one twelfth (1/12) the daily rate at two hundred eight dollars (\$208) per hour.

A3.1.2 Holdover (Extended Staffing). In the event that holdover beyond the standard shift is required due to incident activity, services provided in excess of twelve (12) hours will be charged at two hundred eight dollars (\$208) per hour.

Southern California Edison Service Territory Map



**ORANGE COUNTY FIRE AUTHORITY
QRF COST REIMBURSEMENT RATES
EFFECTIVE January 1, 2024**

DESCRIPTION	2023/24 REVISED RATE	2023/24 RATE	2022/23 RATE	\$ CHANGE	% CHANGE	SOURCE	HOURLY/ DAILY
HELITANKER CH-47 (FLIGHT HOURS)	\$10,462.36	\$10,462.36	\$10,462.36	\$0.00	0%	OCFA CONTRACTOR	Hourly
HELITANKER CH-47 (STANDBY)	\$1,016.10	\$1,016.10	\$1,016.10	\$0.00	\$0.00	OCFA CONTRACTOR	Hourly
HELICOPTER SIKORSKY S-76 (FLIGHT HOURS)	\$3,969.00	\$3,969.00	\$3,969.00	\$0.00	\$0.00	OCFA CONTRACTOR	Hourly
HELICOPTER SIKORSKY S-76 (STANDBY)	\$323.31	\$323.31	\$323.31	\$0.00	\$0.00	OCFA CONTRACTOR	Hourly
HELITANKER S-61 (FLIGHT HOURS)	\$6,082.68	\$6,082.68	\$6,082.68	\$0.00	\$0.00	OCFA CONTRACTOR	Hourly
HELITANKER S-61 (STANDBY)	\$1,016.10	\$1,016.10	\$1,016.10	\$0.00	\$0.00	OCFA CONTRACTOR	Hourly
MOBILE RETARDANT PLANT - OT (1)	\$2,000.00	\$2,000.00	\$2,000.00	\$0.00	\$0.00	OCFA CONTRACTOR	12-Hour Shift (operational period(s) 0800-2000; 2000-0800)
MOBILE RETARDANT PLANT-OT (STANDBY) (1)	\$653.33	\$583.33	\$583.33	\$0.00	\$0.00	OCFA CONTRACTOR	12-Hour Shift (operational period(s) 0800-2000;2000-0800)
WATER TENDER (Perimeter Solutions) (2)	\$2,000.00	\$2,000.00	\$2,000.00	\$0.00	\$0.00	OCFA CONTRACTOR	12-Hour Shift (operational period(s) 0800-2000;2000-0800)
WATER TENDER (Perimeter Solutions - STANDBY) (2)	\$186.67	\$166.67	\$166.67	\$0.00	\$0.00	OCFA CONTRACTOR	12-Hour Shift (operational period(s) 0800-2000;2000-0800)
MOBILE FIRE RETARDANT - PRODUCT (3)	Actual Cost	Actual Cost	Actual Cost	\$0.00	\$0.00	OCFA CONTRACTOR	Per Mixed Gallon
FREIGHT (Perimeter Solutions) (4)	Actual Cost	Actual Cost	Actual Cost	\$0.00	\$0.00	OCFA CONTRACTOR	Location and return to point of origin
LARGE VEHICLE MILEAGE (Fuel Truck, Bus, Service Trailer)	\$4.43	\$4.43	\$4.43	\$0.00	\$0.00	OCFA CONTRACTOR	Per Mile
AIR TACTICAL GROUP SUPERVISORS (ATGS)	\$208.33	\$166.00	\$166.00	\$0.00	\$0.00	OCFA CONTRACTOR	Hourly
PROGRAM MANAGER	\$166.00	\$166.00	\$166.00	\$0.00	\$0.00	OCFA CONTRACTOR	Hourly

Notes:

- (1) \$2,000 per hour (overtime) after initial 12-hr shift (12-hr daily shift paid by Edison), up to maximum of \$14,000/day if extended or if 24-hr operations in a location begins. Contract cycle of 1/1/24 to 12/31/2024 will be charged at the daily operating rate plus overtime or full day rates as utilized.
- (2) Requesting Agency must provide a water tender for Mobile Retardant Plant deployment. Requesting Agency can use an agency water tender or request through vendor.
- (3) Based on 2023/2024 U.S.F.S. FOB Origin Price List of mixed per gallon.
- (4) Based on location, estimated at \$16,000 per incident (\$8,000 per delivery, \$8,000 return of unmixed/unsold product to point of origin).



Orange County Fire Authority
AGENDA STAFF REPORT

Board of Directors Meeting
November 16, 2023

Agenda Item No. 2I
Consent Calendar

Award of Public Works Contract for
Fire Station 4 Restroom Remodel & Upgrades

Contact(s) for Further Information

Jim Ruane, Assistant Chief jimruane@ocfa.org 714.573.6028
Logistics Department

Patrick Bauer, Property & Construction patrickbauer@ocfa.org 714.573.6471
Manager/Logistics Department

Summary

This agenda item seeks approval of the plans and specifications for the restroom remodel and upgrades at OCFA Fire Station #4 and award of a public works contract to Blackstone Builders, Inc., the lowest responsive and responsible bidder, responding to bid RO2618B.

Prior Board/Committee Action

None.

RECOMMENDED ACTION(S)

1. Approve the plans and specifications for restroom remodel and upgrades at OCFA Fire Station #4.
2. Accept Blackstone Builders Inc. bid dated September 18, 2023.
3. Approve and award the public works contract to Blackstone Builders, Inc. in the amount of \$1,301,593.

Impact to Cities/County

Not Applicable.

Fiscal Impact

Funding for this contract is available in the existing FY2023/24 Logistics Department Capital Improvement Budget projects, specifically Inclusive Facilities/Station Bathrooms (P413).

Background

Station 4 will be undergoing an inclusive facility remodel to bring the station up to current standards. The station is 27 years old and has significant restroom and privacy deficiencies that need to be addressed. The scope of the inclusive facility work is extensive given the size and age of the station. All restrooms are being remodeled and brought up to current ADA standards, as required by building code. Due to the nature of the work scope, new roof equipment is required for ventilation, which triggered a roof replacement due to age and condition of the existing roof.

Request for Statement of Qualifications (RFSQ) Process

On June 8, staff issued IFB RO2618A to solicit statements of qualifications from vendors interested in the OCFA Fire Station 4 restroom remodel and upgrade project. A mandatory job-walk was held on June 26, 2023, with qualifications due on July 6, 2023. Seven statements of qualifications were received and reviewed by staff for responsiveness and qualification. Five vendors were deemed responsive and qualified. See Attachment 1 for the Executive Summary that includes detailed report of the responsive bidders’ qualifications.

Invitation for Bids (IFB) Process

On August 16, 2023, staff issued IFB RO2618B to solicit competitive bids from pre-qualified vendors for the OCFA Fire Station 4 restroom remodel and upgrade project. A mandatory job-walk was held on August 30, 2023, with bids due on September 21, 2023. Three construction bids were received and reviewed by staff for responsiveness. All bidders were deemed responsive.

Bidder	Lump Sum Pricing
Blackstone Builders, Inc.	\$1,301,593
Neuroth Construction, Inc.	\$1,547,227
Kazoni Construction	\$1,629,067

Additionally, staff reviewed the pricing submitted and confirmed the reasonableness of the apparent lowest bidder’s pricing based on the engineer’s estimate, individual cost categories, and comparison to other bidders’ pricing. Refer to Attachment 2 for the Bid Tabulation with cost category comparison.

Subsequent to this review, a discussion was conducted between Blackstone Builders, Inc. and the OCFA project team to confirm specifications, scope of work, and construction schedule of the project as provided in the bid submittal. As a result of the pre-qualification process, price analysis, and confirmation of the specifications, scope of work, and schedule, Blackstone Builders, Inc. is deemed the lowest responsive and responsible bidder.

The price analysis confirmed that the bid cost from Blackstone Builders is lower than the Engineer’s Estimate by approximately \$200,000 due to the cost of building materials going down since the Engineer’s estimate was completed. In addition, for Category IV: Overhead & Indirect Costs, Blackstone Builders bid is considerably lower than the remaining bidders (\$223,000 lower than Neuroth Construction, Inc., and \$343,977 lower than Kazoni Construction), but close in most other categories (see Bid Tabulation, Attachment 2). In discussion with the contractor, the cost differential was determined to be accurate and reasonable, where the rough schedule of values sheet shows appropriate breakdowns for funds in all areas of construction, including mobilization, rentals, bonds and mark up.

Recommendation

Based on the bid results, staff recommends contract award to Blackstone Builders, Inc. as the lowest responsive responsible bidder based on the base bid in the amount of \$1,301,593.

Attachment(s)

1. Executive Summary
2. Bid Tabulation
3. Proposed Public Works Contract (***Contract posted online and hard copy available in the Clerk’s Office upon request***)



Executive Summary: Formal Public Works Bid

Bid #RO2618B : Tenant Improvements FS 4

Section 1. Project Information			
IFB Issue Date	8/16/2023	IFB Due Date	9/21/2023
Vendors Notified	897	Bids Received	3
Job Walk	8/30/2023	Job Walk Attendees	7
Addenda Issued	1	Engineer's Estimate	\$1,500,000
Project Description:	Tenant Improvement Project at OCFA Fire Stations 4 including bathroom remodel, plumbing, and ADA upgrades.		
Solicitation Method:	Due to the public works nature of this project and the estimated value exceeding \$1,000,000, this project was solicited through the Formal Invitation for Public Works bid utilizing the two-step pre-qualification process.		
Section 2. Pre-Qualification of Responsive Bidders			
Neuroth Construction, Inc.			<input checked="" type="checkbox"/> Qualified <input type="checkbox"/> Not Qualified
Contractor Reputation: <i>Labor Compliance, Safety Record, Previous Disqualifications, Civil Wage Penalties, Convictions</i>			<input checked="" type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory
Notes:	No findings.		
Contractor Capability to Perform Work: <i>CSLB Licensing, DIR Registration, Surety Information, Prior Claims, Completion of Similar Work, Ability to Complete Project, Prior Contract Termination</i>			<input checked="" type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory
Prior & Current Contracts:	<u>Prior:</u> <ul style="list-style-type: none"> - API Hospital Kitchen Remodel, Outpatient Exterior - USDA- Campsite Tables, San Jacinto Restroom/ Structure Remodel - City of Loma Linda Fire Station 251 TI - City of Norco – Gym renovation - OCFA FS 14/16, 32/53 TIs - CSU San Marcos Pantry Remodel <u>Current:</u> <ul style="list-style-type: none"> - San Juan Capistrano Council Chambers - San Geronio Pass Perimeter Fence 		
Disposition of References:			<input checked="" type="checkbox"/> Favorable <input type="checkbox"/> Unfavorable
References Provided:	<ul style="list-style-type: none"> • USDA – Nathan Hay • City of Norco – Robin Shepard • CSU San Marcos – Steve Watters 	No. References that Responded:	2
Notes:	Per references, contractor performed and completed work as agreed, were easy to reach for communication, project was completed within time and budget. Contractor would be recommended for future projects.		
Blackstone Builders			<input checked="" type="checkbox"/> Qualified <input type="checkbox"/> Not Qualified
Contractor Reputation: <i>Labor Compliance, Safety Record, Previous Disqualifications, Civil Wage Penalties, Convictions</i>			<input checked="" type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory
Notes:	One finding Case: DLSE 40-62787-120 11/2020. Underpayment of wages (settled) \$4,920; UC Irvine Middle Earth Showers. Contractor remains eligible for award.		
Contractor Capability to Perform Work:			<input checked="" type="checkbox"/> Satisfactory

CSLB Licensing, DIR Registration, Surety Information, Prior Claims, Completion of Similar Work, Ability to Complete Project, Prior Contract Termination		<input type="checkbox"/> Unsatisfactory	
Prior & Current Contracts:	<u>Prior:</u> - UC Irvine – Condo remodel - Riverside County Sheriff – Restroom/Shower remodel - Irvine Valley College – Classroom remodel <u>Current:</u> - Perris Head Start Reception Security - JOCs with CSU San Marcos, Domingues Hills, OC Sheriff-Coroner		
	Disposition of References:		<input checked="" type="checkbox"/> Favorable <input type="checkbox"/> Unfavorable
References Provided:	UC Irvine Riverside County Sheriff Irvine Valley College	No. References that Responded:	3
Notes:	Per references, contractor performed and completed work as agreed, within a reasonable amount of time and budget.		
Kazoni Construction		<input checked="" type="checkbox"/> Qualified <input type="checkbox"/> Not Qualified	
Contractor Reputation: <i>Labor Compliance, Safety Record, Previous Disqualifications, Civil Wage Penalties, Convictions</i>		<input checked="" type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory	
Notes:	No findings.		
Contractor Capability to Perform Work: <i>CSLB Licensing, DIR Registration, Surety Information, Prior Claims, Completion of Similar Work, Ability to Complete Project, Prior Contract Termination</i>		<input checked="" type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory	
Prior & Current Contracts:	<u>Prior:</u> - Saddleback High School Digital Media Lab Remodel - City of Industry Expo Center Avalon Room TI - Beverly Hills USD School site updates, restroom, fountains, lockers, etc... - Santa Ana USD Heninger K-8 Expansion restroom, dance studio, remodel, various marquee installs - City of Beverly Hills La Cienega building remodel, exterior, interior - Santa Ana Rancho Santiago College Renovations - UC Riverside Locker Room Improvements - Chapman University Fitness center renovation - DGS Parking Structure Improvements - Lincoln Property Construction Project <u>Current:</u> - Costa Mesa PD Indoor Range Upgrades - Portable Relocation and Asphalt Whittier Elementary		
	Disposition of References:		<input checked="" type="checkbox"/> Favorable <input type="checkbox"/> Unfavorable
References Provided:	Saddleback High School – Michael Cecconi City of Industry – Gerry Perez Beverly Hills USD – Lance Blair Santa Ana USD – Albert Bolanos, Dennis Chavez City of Beverly Hills – Michael Morgan Rancho Santiago College – Aval Hill UC Riverside – Blair Fickett Chapman University – Greg Desario DGS – Micky Chen Lincoln Property – Perris Moss	No. References that Responded:	6

Notes:	Per references, contractor performed and completed work as agreed, within a reasonable amount of time and budget. Would recommend for future project.
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Section 3. Bid Pricing *See attached Bid Tabulation for Detailed Cost Comparison*

Lowest Responsive, Responsible Bidder:	Blackstone Builders, Inc.
Comparison to Engineer's Estimate:	13% Less
Pricing Determination:	<input checked="" type="checkbox"/> Reasonable <input type="checkbox"/> Not Reasonable

Section 4. Recommendation for Award

Award Documentation:

Payment Bond:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Performance Bond:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Award Certifications:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Insurance Certificates:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Discussion:

Through the two-step pre-qualification process staff identified a single finding against Blackstone Builders, Inc. Based upon the State's model scoring system, the Contractor is deemed qualified and eligible for award. Additional research was completed by OCFA staff to confirm responsiveness and responsibility of the bid.

The Blackstone bid is \$198,407 lower than the Engineer's estimate. It was determined that this amount is reasonable as the cost of building materials has decreased since the estimate was completed. When comparing price across the cost categories, the Blackstone bid is lower than the other two bids in Category IV by \$245,643 and \$327,474 respectively. The OCFA project team held discussions with Blackstone and the contractor stated that its bid numbers are correct. The rough schedule of values included in the Blackstone bid shows appropriate breakdowns for funds in all areas of construction including mobilization, rentals, bonds and mark up. The scheduled value for each area of construction is appropriate.

A discussion was conducted with the apparent low bidder and OCFA staff after bid opening to confirm specifications, scope of work, and construction schedule of the project as provided in the bid submittal. OCFA staff also verified the current California State License Board (CSLB) license statuses and registration with the Department of Industrial Relations (DIR) for Blackstone Builders, Inc. and all listed subcontractors as follows:

Contractor	CSLB License Number, Classification, and Expiration	DIR Registration Number
Blackstone Builders, Inc.	832936, B, 6/30/25	1000021619
HCI Systems, Inc.	905493, C10, C7, C16, 2/29/24	1000000046
Bluetec Unlimited, Inc.	1091898, C21, C22, 5/31/24	1000901034
CJK Construction/ Ace Tek	916982, B, C39, 6/30/24	1000006658
GL Woodworking Inc./ Miller's	813913, C5, C6, 11/30/23	1000026811
PPC Air Conditioning	662165, B, C4, C16, C20, C36	1000003789
McKeown Inc./ Plumbing	1052408, A, C36	1000840869
Allegiance Electric	1089477, C10	1000882457
JBI Group	889249, C61/D28	1000833265
Starr Sign Design	766950, C10, C61/D42	1000026863
Professional Diversified Flooring	416261, C15, C54	1000000967
Pacific Building Specialties	631815, C61/D34	1000009133

As a result of the additional research, meeting, and verified qualifications of the apparent low bidder, its bid was accepted.

RO2618B - Fire Station 4 Restroom Remodel & Upgrades	Blackstone Builders, Inc.			Neuroth Construction, Inc.			Kazoni Construction		
	Total Bid	Difference from Lowest Bid	Difference from Engineer's	Total Bid	Difference from Lowest Bid	Difference from Engineer's	Total Bid	Difference from Lowest Bid	Difference from Engineer's
	\$1,301,593.00	\$0.00	-\$198,407.00	\$1,547,227.00	\$245,634.00	\$47,227.00	\$1,629,067.00	\$327,474.00	\$129,067.00
Line Item Subtotal	Line Item Subtotal			Line Item Subtotal	Difference from Lowest Bid		Line Item Subtotal	Difference from Lowest Bid	
Category I: Labor Classifications (Prevailing Wage)	\$649,692.00			\$650,000.00	\$308.00		\$651,626.00	\$1,934.00	
Category II: Permanent & Non-Permanent Materials/Supplies	\$433,128.00			\$500,000.00	\$66,872.00		\$488,720.00	\$55,592.00	
Category III: Equipment	\$20,000.00			\$50,000.00	\$30,000.00		\$18,000.00	-\$2,000.00	
Category IV: Overhead & Indirect Costs	\$17,000.00			\$240,000.00	\$223,000.00		\$360,977.00	\$343,977.00	
Category V: Profit (% As written)	15.00%			10.00%	5.00%		6.00%	-9.00%	
Category VI: Permits/Fees	\$12,000.00			\$25,000.00	\$13,000.00		\$12,000.00	\$0.00	
Notes:	Price is 13% lower than engineer's estimate. Bid price deemed reasonable.			Price is 3.1% higher than engineer's estimate. Bid price deemed reasonable.			Price is 8.6% higher than engineer's estimate. Bid price deemed reasonable.		

4F: CONTRACT AGREEMENT

THIS CONTRACT AGREEMENT (hereinafter "Agreement" or "Contract" or "Contract Agreement") is made and entered into for the above identified Project this 16 day of November, 2023, BY AND BETWEEN THE **ORANGE COUNTY FIRE AUTHORITY** (hereinafter "OCFA"), and Blackstone Builders Inc., as CONTRACTOR.

WITNESSETH that OCFA and CONTRACTOR have mutually agreed as follows:

[SECTIONS 1 – 40 are set forth in the Solicitation Information and Instructions to Bidders above.]

41 – PROJECT MANUAL

This Contract consists of the Project Manual. The Project Manual includes the following component parts thereof, each of which is a part of this Contract:

- (1) RO2618B - Notice Inviting Bids
- (2) RO2618B - Instructions to Bidders
- (3) RO2618B - Bid Documents
- (4) RO2618B - Contract Documents
- (5) RO2618B - Technical Specifications
- (6) Any and all addenda and other supplemental notices and agreements issued by OCFA clarifying, amending, or extending the work contemplated as may be required to ensure its completion in an acceptable manner

All of the above component documents of the Project Manual are complementary and Work required by one of the above documents shall be done as if required by all. In the event of conflict among the component documents of the Project Manual, the conflict shall be resolved as set forth in Section 52 of the General Conditions.

42 - CONTRACT PRICE

OCFA shall pay to Contractor as full consideration for the faithful performance of the Contract, the sum of ONE MILLION, THREE HUNDRED ONE THOUSAND, FIVE HUNDRED NINETY-THREE DOLLARS (\$1,301,593). This sum is the total amount stipulated in the Bid. Payment shall be made as set forth in the General Conditions.

43 – CONTRACTOR'S COMMITMENT TO FURNISH MATERIALS AND WORK

For and in consideration of the payments and agreements to be made and performed by OCFA, CONTRACTOR agrees to furnish all materials and perform all work required for the above identified Project, and to fulfill all other obligations as set forth in the aforesaid Contract Documents.

44 – CONTRACTOR'S COMMITMENT TO PRICES

CONTRACTOR agrees to receive and accept the prices set forth in the Proposal as full compensation for furnishing all materials, performing all work, and fulfilling all obligations hereunder. Said compensation shall cover all expenses, losses, damages, and consequences arising out of the nature of work during its progress or prior to its acceptance including those for well and faithfully completing the work and the whole thereof in the manner and time specified in the aforesaid Contract Documents; and also including those arising from actions of the elements, unforeseen difficulties or obstructions encountered in the prosecution of the work, suspension or discontinuance of the work, and all other unknowns or risks of any description connected with the work.

44.1 - NO INCREASE IN BID COST DUE TO SUBSTITUTION OF SUBCONTRACTOR. In the event that a subcontractor is substituted in any manner for any reason, any increased cost related to such substitution shall be the sole responsibility of the Contractor. Such substitution shall not cause or result, directly or indirectly, in any increase in the bid price. This subsection shall not be construed to be prior consent to substitution of subcontractors, nor to authorize any substitution that is prohibited by the Subletting and Subcontracting Fair Practices Act.

45 – PAYMENT TO CONTRACTOR

OCFA hereby promises and agrees to employ, and does hereby employ, CONTRACTOR to provide the materials, do the work, and fulfill the obligations according to the terms and conditions herein contained and referred to, for the prices aforesaid, and hereby contracts to pay the same at the time, in the manner, and upon the conditions set forth in the Contract Documents.

46 - WORKER'S COMPENSATION

CONTRACTOR acknowledges the provisions of the Labor Code requiring every employer to be insured against liability for workers' compensation, or to undertake self-insurance in accordance with the provisions of that Code, and certifies compliance with such provisions.

47 – PRINCIPAL INTERESTS

CONTRACTOR affirms that the signatures, titles, and seals set forth hereinafter in execution of this Agreement represent all individuals, firm members, partners, joint ventures, and/or corporate officers having a principal interest herein.

48 – COMPLIANCE WITH FEDERAL IMMIGRATION AND NATIONALITY ACT

CONTRACTOR hereby represents and warrants that it will comply with all of the provisions of the Federal Immigration and Nationality Act, 8 U.S.C. Section 1101, *et seq.*, as amended, and in connection therewith, shall not employ unauthorized aliens as defined therein. Should CONTRACTOR so employ such unauthorized aliens for the performance of any work and/or services under this Agreement, and should any liability or sanctions be imposed against OCFA for such use of unauthorized aliens, CONTRACTOR hereby agrees to defend and indemnify OCFA against any and all liabilities, actions, suits, claims, demands, losses, costs, judgments, arbitration awards, settlements, damages, demands, orders, or penalties which arise out of or are related to such employment, together with any and all costs, including attorneys' fees, incurred by OCFA.

49 – CERTIFICATION RE DEBARMENT

CONTRACTOR confirms that neither CONTRACTOR nor its principals are suspended, debarred, proposed for debarment, declared ineligible, or voluntarily excluded from the award of contracts from United States (U.S.) federal government procurement or nonprocurement programs, or are listed in the List of Parties Excluded from Federal Procurement or Nonprocurement Programs (<http://www.sam.gov/>) issued by the U.S. General Services Administration. "Principals" means officers, directors, owners, partners, and persons having primary management or supervisory responsibilities within a business entity (e.g. general manager, plant manager, head of a subsidiary, division or business segment, and similar positions). CONTRACTOR will provide immediate written notification to OCFA if, at any time prior to award, CONTRACTOR learns that this certification was erroneous when submitted or has become erroneous by reason of changed circumstances. This certification is a material representation of fact upon which reliance will be placed when OCFA executes this Agreement. If it is later determined that

CONTRACTOR knowingly rendered an erroneous certification, in addition to the other remedies available to OCFA, OCFA may terminate this Agreement for default by CONTRACTOR.

50 - INDEMNIFICATION

To the fullest extent permitted by law, CONTRACTOR (at CONTRACTOR's sole cost and expense) shall defend (with legal counsel acceptable to OCFA in OCFA's sole discretion), indemnify, protect, and hold harmless the INDEMNIFIED PARTIES and each of them against all CLAIMS which arise out of, pertain to, or are related to CONTRACTOR's performance under, or failure to perform under, the Agreement. Under no circumstances shall the insurance requirements and limits set forth in this Agreement be construed to limit CONTRACTOR's indemnification obligation or other liability hereunder. Notwithstanding the foregoing, such obligation to defend, indemnify, protect, and hold harmless the INDEMNIFIED PARTIES shall not apply to the extent such CLAIMS arise from the sole negligence or willful misconduct of the OCFA.

As used herein, "INDEMNIFIED PARTIES" refers to OCFA and its appointed officials, officers, employees, agents, representatives, attorneys and volunteers.

As used in this Section 50, "CLAIMS" refers to any and all liabilities, actions, suits, claims, demands, losses, costs, judgments, arbitration awards, settlements, damages, demands, orders, penalties, and expenses including legal costs, expert fees and attorney fees, including but not limited to CLAIMS arising from injuries to or death of persons (CONTRACTOR's employees included), or for damage to property, including property owned by OCFA.

51 – COMPLIANCE WITH WORK RULES

CONTRACTOR shall be familiar with, observe, and comply at all times during the term of this Agreement with any work rules for contractors as may be established and promulgated by the OCFA Fire Chief, which work rules shall be additional terms and conditions for providing the work and services to the OCFA pursuant to this Agreement, as may be updated and/or amended from time to time at the sole discretion of the Fire Chief.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF the parties hereto have caused this Agreement to be executed the day and year first written.

ORANGE COUNTY FIRE AUTHORITY:

[NAME], CHAIR
OCFA BOARD OF DIRECTORS

ATTEST:

MARIA D. HUIZAR,
CLERK OF THE AUTHORITY

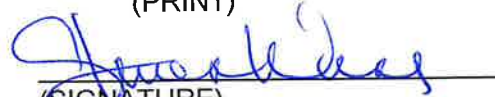
APPROVED AS TO FORM:

DAVID E. KENDIG
GENERAL COUNSEL

CONTRACTOR:

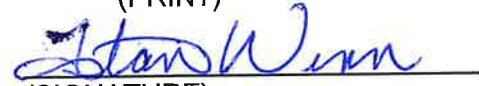
Blackstone Builders Inc.
(CORPORATION (NAME - TYPE))

BY: Steven Winn
(PRINT)


(SIGNATURE)

Secretary
(TITLE)

BY: Tristan Winn
(PRINT)


(SIGNATURE)

Treasurer
(TITLE)

NOTE:

SIGNATURES OF CORPORATE OFFICIALS MUST BE NOTARIZED, ATTACH JURAT.

ALL-PURPOSE CERTIFICATE OF ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California }

County of Orange }

On October 31, 2023 before me, Susan E. Morales, Notary Public,
(Here insert name and title of the officer)

personally appeared Steven Winn
who proved to me on the basis of satisfactory evidence to be the person(~~s~~) whose name(~~s~~) is/~~are~~ subscribed to the within instrument and acknowledged to me that he/~~she/they~~ executed the same in his/~~her/their~~ authorized capacity(~~ies~~), and that by his/~~her/their~~ signature(~~s~~) on the instrument the person(~~s~~), or the entity upon behalf of which the person(~~s~~) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Susan E. Morales
Notary Public Signature

(Notary Public Seal)



ADDITIONAL OPTIONAL INFORMATION

DESCRIPTION OF THE ATTACHED DOCUMENT

4F: Contract Agreement
(Title or description of attached document)

Blackstone Builders, Inc.
(Title or description of attached document continued)

Number of Pages 4 Document Date 10/31/23

CAPACITY CLAIMED BY THE SIGNER

Individual (s)

Corporate Officer
Secretary
(Title)

Partner(s)

Attorney-in-Fact

Trustee(s)

Other _____

INSTRUCTIONS FOR COMPLETING THIS FORM

- This form complies with current California statutes regarding notary wording and, if needed, should be completed and attached to the document. Acknowledgments from other states may be completed for documents being sent to that state so long as the wording does not require the California notary to violate California notary law.*
- State and County information must be the State and County where the document signer(s) personally appeared before the notary public for acknowledgment.
 - Date of notarization must be the date that the signer(s) personally appeared which must also be the same date the acknowledgment is completed.
 - The notary public must print his or her name as it appears within his or her commission followed by a comma and then your title (notary public).
 - Print the name(s) of document signer(s) who personally appear at the time of notarization.
 - Indicate the correct singular or plural forms by crossing off incorrect forms (i.e. ~~he/she/they~~, is /~~are~~) or circling the correct forms. Failure to correctly indicate this information may lead to rejection of document recording.
 - The notary seal impression must be clear and photographically reproducible. Impression must not cover text or lines. If seal impression smudges, re-seal if a sufficient area permits, otherwise complete a different acknowledgment form.
 - Signature of the notary public must match the signature on file with the office of the county clerk.
 - ❖ Additional information is not required but could help to ensure this acknowledgment is not misused or attached to a different document.
 - ❖ Indicate title or type of attached document, number of pages and date.
 - ❖ Indicate the capacity claimed by the signer. If the claimed capacity is a corporate officer, indicate the title (i.e. CEO, CFO, Secretary).
 - Securely attach this document to the signed document with a staple.

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CONTRACTOR affirms that the signatures, titles, and seals set forth hereinafter in execution of this Agreement represent all individuals, firm members, partners, joint ventures, and/or corporate officers having a principal interest herein.

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CONTRACTOR knowingly rendered an erroneous certification, in addition to the other remedies available to OCFA, OCFA may terminate this Agreement for default by CONTRACTOR.

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To the fullest extent permitted by law, CONTRACTOR (at CONTRACTOR's sole cost and expense) shall defend (with legal counsel acceptable to OCFA in OCFA's sole discretion), indemnify, protect, and hold harmless the INDEMNIFIED PARTIES and each of them against all CLAIMS which arise out of, pertain to, or are related to CONTRACTOR's performance under, or failure to perform under, the Agreement. Under no circumstances shall the insurance requirements and limits set forth in this Agreement be construed to limit CONTRACTOR's indemnification obligation or other liability hereunder. Notwithstanding the foregoing, such obligation to defend, indemnify, protect, and hold harmless the INDEMNIFIED PARTIES shall not apply to the extent such CLAIMS arise from the sole negligence or willful misconduct of the OCFA.

As used herein, "INDEMNIFIED PARTIES" refers to OCFA and its appointed officials, officers, employees, agents, representatives, attorneys and volunteers.

As used in this Section 50, "CLAIMS" refers to any and all liabilities, actions, suits, claims, demands, losses, costs, judgments, arbitration awards, settlements, damages, demands, orders, penalties, and expenses including legal costs, expert fees and attorney fees, including but not limited to CLAIMS arising from injuries to or death of persons (CONTRACTOR's employees included), or for damage to property, including property owned by OCFA.

51 – COMPLIANCE WITH WORK RULES

CONTRACTOR shall be familiar with, observe, and comply at all times during the term of this Agreement with any work rules for contractors as may be established and promulgated by the OCFA Fire Chief, which work rules shall be additional terms and conditions for providing the work and services to the OCFA pursuant to this Agreement, as may be updated and/or amended from time to time at the sole discretion of the Fire Chief.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF the parties hereto have caused this Agreement to be executed the day and year first written.

ORANGE COUNTY FIRE AUTHORITY:

[NAME], CHAIR
OCFA BOARD OF DIRECTORS

ATTEST:

MARIA D. HUIZAR,
CLERK OF THE AUTHORITY

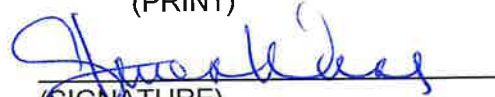
APPROVED AS TO FORM:

DAVID E. KENDIG
GENERAL COUNSEL

CONTRACTOR:

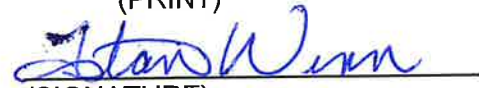
Blackstone Builders Inc.
(CORPORATION (NAME - TYPE))

BY: Steven Winn
(PRINT)


(SIGNATURE)

Secretary
(TITLE)

BY: Tristan Winn
(PRINT)


(SIGNATURE)

Treasurer
(TITLE)

NOTE:

SIGNATURES OF CORPORATE OFFICIALS MUST BE NOTARIZED, ATTACH JURAT.

ALL-PURPOSE CERTIFICATE OF ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California }

County of Orange }

On October 31, 2023 before me, Susan E. Morales, Notary Public,
(Here insert name and title of the officer)

personally appeared Steven Winn
who proved to me on the basis of satisfactory evidence to be the person(~~s~~) whose name(~~s~~) is/~~are~~ subscribed to the within instrument and acknowledged to me that he/~~she/they~~ executed the same in his/~~her/their~~ authorized capacity(~~ies~~), and that by his/~~her/their~~ signature(~~s~~) on the instrument the person(~~s~~), or the entity upon behalf of which the person(~~s~~) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Susan E. Morales
Notary Public Signature

(Notary Public Seal)



ADDITIONAL OPTIONAL INFORMATION

DESCRIPTION OF THE ATTACHED DOCUMENT

4F: Contract Agreement
(Title or description of attached document)

Blackstone Builders, Inc.
(Title or description of attached document continued)

Number of Pages 4 Document Date 10/31/23

CAPACITY CLAIMED BY THE SIGNER

- Individual (s)
- Corporate Officer
Secretary
(Title)
- Partner(s)
- Attorney-in-Fact
- Trustee(s)
- Other _____

INSTRUCTIONS FOR COMPLETING THIS FORM

- This form complies with current California statutes regarding notary wording and, if needed, should be completed and attached to the document. Acknowledgments from other states may be completed for documents being sent to that state so long as the wording does not require the California notary to violate California notary law.*
- State and County information must be the State and County where the document signer(s) personally appeared before the notary public for acknowledgment.
 - Date of notarization must be the date that the signer(s) personally appeared which must also be the same date the acknowledgment is completed.
 - The notary public must print his or her name as it appears within his or her commission followed by a comma and then your title (notary public).
 - Print the name(s) of document signer(s) who personally appear at the time of notarization.
 - Indicate the correct singular or plural forms by crossing off incorrect forms (i.e. ~~he/she/they~~, is /~~are~~) or circling the correct forms. Failure to correctly indicate this information may lead to rejection of document recording.
 - The notary seal impression must be clear and photographically reproducible. Impression must not cover text or lines. If seal impression smudges, re-seal if a sufficient area permits, otherwise complete a different acknowledgment form.
 - Signature of the notary public must match the signature on file with the office of the county clerk.
 - ❖ Additional information is not required but could help to ensure this acknowledgment is not misused or attached to a different document.
 - ❖ Indicate title or type of attached document, number of pages and date.
 - ❖ Indicate the capacity claimed by the signer. If the claimed capacity is a corporate officer, indicate the title (i.e. CEO, CFO, Secretary).
 - Securely attach this document to the signed document with a staple.



ORANGE COUNTY FIRE AUTHORITY FORMAL INVITATION FOR BIDS

FIRE STATION 4 RESTROOM REMODEL WITH MINOR FACILITY UPDATES FOR PROJECTS EXCEEDING \$200,000

August 16, 2023

Solicitation No. RO2618B

The Orange County Fire Authority is requesting bids to establish a construction agreement for Fire Station 4 Restroom Remodel with minor facility updates located at OCFA Fire Station #4, 2 California Ave., Irvine CA 92612, as specified herein.

THIS PROJECT IS CONSIDERED A PUBLIC WORK.

Pursuant to SB 854, no contractor or subcontractor may be awarded a contract for a public works project unless registered with the CA Department of Industrial Relations per California Labor Code section 1725.5. This project is a public work and is subject to compliance monitoring and enforcement.

MANDATORY REQUIREMENTS:

- Meet Minimum Qualifications
- Attendance at Job Walk on **8/30/2023**
- Contractors' License: **A, B, or specialty as required based on scope of work as provided**
- Registration with the California Department of Industrial Relations
- Bid Bond - 10% of Bid Amount (*All Bidders*)
- Faithful Performance Bond – 100% of Agreement Price (*Awarded Contractor Only*)
- Payment Bond – 100% of Agreement Price (*Awarded Contractor Only*)

BID SUBMITTALS:

- Bids will be received no later than **11:00 A.M. on 9/13/2023**
- **Only paper bids will be accepted for this solicitation**
- Bids may be hand delivered or mailed to Orange County Fire Authority, Purchasing Department, 1 Fire Authority Road, Building C, Irvine, CA 92602 no later than the date and time specified.
- One (1) original hard copy and one (1) duplicate hard copy shall be sent to the attention of the Purchasing Section, within said time limit, in a sealed envelope.
- The envelope should include the Bidder's Business Name, Solicitation Number, and the Due Date.

LATE BIDS WILL NOT BE ACCEPTED.

Any questions concerning this Formal Invitation for Bids or the specifications should be submitted on-line via the Q&A Module available through PlanetBids before **5:00 P.M. on 8/30/2023**. OCFA will publish a response to all inquiries through the e-procurement system and/or may issue an addendum as a result.

Rothchild Ong, Assistant Purchasing Agent
rothchildong@ocfa.org | 714-573-6642

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SECTION 1: NOTICE INVITING BIDS

**1A: ORANGE COUNTY FIRE AUTHORITY NOTICE INVITING SEALED BIDS FOR
OCFA FIRE STATION 4 RESTROOM REMODEL WITH MINOR FACILITY UPGRADES**

=====

ORANGE COUNTY FIRE AUTHORITY REQUEST FOR QUALIFICATIONS: SCOPE: OCFA Fire Station 4 Restroom Remodel with minor facility updates located at OCFA Fire Station #4, 2 California Ave., Irvine CA 92612. For official bid documents visit: <https://www.planetbids.com/portal/portal.cfm?CompanyID=14773>. A MANDATORY job walk will be held August 30, 2023 AT 10:00A.M. Bid submittals will be accepted until September 13, 2023 AT 11:00 A.M.

=====

Published: Orange County Register
FIRST PUBLICATION DATE: August 21, 2023
SECOND PUBLICATION DATE: August 28, 2023

1B: SOLICITATION INFORMATION

1. ABBREVIATIONS

IFB: Invitation for Bids

OCFA: Orange County Fire Authority

DIR: California Department of Industrial Relations

CSLB: California Contractors State License Board

PCC: California Public Contract Code

2. OBJECTIVE

The Orange County Fire Authority is requesting bids to establish a construction agreement for Fire Station 4 Restroom Remodel with minor facility updates located at OCFA Fire Station #4, 2 California Ave., Irvine CA 92612, as specified herein. Project work will be coordinated by the OCFA Property Management section.

3. MANDATORY SITE INSPECTION

A mandatory job walk for prime contractors will be held on **WEDNESDAY, August 30th 2023 10:00A.M. at OCFA Fire Station #4, 2 California Ave., Irvine CA 92612.**

Contractor's representative must attend the entirety of the job walk. **Late arrivals will not be granted access to the site, nor permitted to attend the job walk.** This informational meeting will be held to allow for site inspection and questions or clarifications concerning OCFA's IFB process and subsequent contract award. Prospective Bidders should be familiar with the IFB prior to attending the job walk.

4. CONTRACTOR MINIMUM QUALIFICATIONS

Bidder must meet the following minimum qualifications in order to have its response considered:

- **Current and valid A, B, or specialty Contractor's License issued by the California Contractor State License Board as required based on scope of work as provided**
- **Current and valid California Department of Industrial Relations registration**
- **Minimum 10 years' experience providing the same or similar services**

5. DUE DATE

Bids will be received no later than **11:00 AM on 9/13/2023**. Late submittals will not be accepted. There will be a public opening of the bids on the specified due date and time in the Purchasing Office at the OCFA's Regional Fire Operations and Training Center located at 1 Fire Authority Road, Irvine, CA 92602. If attending the bid opening, please allow time to check in at the Reception Desk.

6. SUBMITTAL INSTRUCTIONS

The Bid Response Forms are available for download on OCFA's online bidding platform, PlanetBids. Bids must be prepared using the response forms included in this IFB document. Bids shall be executed by an authorized signatory. Contractors are to fill in all blank spaces (insert "N/A" where the answer is not applicable). Contractors are to initial all interlineations, annotations, deletions, alterations, erasures and other modifications on the forms. Deviations in the form may result in the bid being deemed non-responsive. **Only paper bids will be accepted for this solicitation.**

Bids may be hand delivered or mailed to Orange County Fire Authority, Purchasing Department, 1 Fire Authority Road, Building C, Irvine, CA 92602 no later than the date and time specified in Section 5 above. One (1) original hard copy and one (1) duplicate hard copy shall be sent to the attention of the Purchasing Section, within said time limit, in a sealed envelope. The envelope should include the Bidder's Business Name, Solicitation Number, and the Due Date. (Failure to include a duplicate hard copy will not cause an otherwise responsive bid to be deemed non-responsive.)

Any vendor who wishes his or her bid to be considered for award is responsible for ensuring that it is complete and received by the Purchasing Office on or before the due date and time. **Facsimile, electronic or e-mail bids will not be considered.**

7. INQUIRIES

Any questions related to the IFB shall be directed to the Assistant Purchasing Agent, Rothchild Ong. Questions and comments must be submitted via this bid's Q&A module on the PlanetBids website no later than **5:00 P.M. on 8/30/2023**. The inquirer's name, company, address, phone number should be included. Verbal interpretations or clarifications on the part of OCFA will be without legal effect. Only responses submitted in writing via the Q&A module or addendum will be binding.

8. SCHEDULE OF IMPORTANT DATES

Invitation for Bid Issue Date	August 16, 2023
Mandatory Job Walk	August 30, 2023
Final Day to Submit Questions	August 30, 2023
Deadline to Submit Bid Response	September 13, 2023

9. CONTRACTOR RESPONSIBILITIES

9.1 MATERIAL AND LABOR

Contractor shall provide all permits, material, labor, tools and supplies to complete the project as described herein. See Section 5 for detailed information on these requirements and additional components that must be included in Contractor's bid and pricing.

9.2 CSLB LICENSE

Contractor and all subcontractors shall possess a valid California **A, B, or specialty** Contractor's license, as required by California law based on scope of work as provided, at the time of bid submission, pursuant to California Public Contract Code Section 3300 and Business and Professions Code Section 7028.15. The successful contractor and all subcontractors must maintain the license throughout the duration of the project.

9.3 PREVAILING WAGE AND COMPLIANCE MONITORING

Contractor and all subcontractors shall conform to the State of California Public Works Contract requirements regarding prevailing wages, benefits, on-site audits with 48-hour notice, payroll records, and apprentice and trainee employment requirements, for all Services on the above Project, including, without limitation, the State labor compliance monitoring and enforcement by the Compliance Monitoring Unit of the Department of Industrial Relations. The successful contractor and all subcontractors must maintain DIR registration throughout the duration of the project.

9.4 STANDARD SPECIFICATIONS

OCFA relies on the standard specifications, CSI and Greenbook applicable in the jurisdiction where the project is located, as modified by the local jurisdiction.

9.5 BUSINESS LICENSE REQUIREMENTS

Contractor and all subcontractors shall conform to the requirements of the city in which the project is located (or the requirements of the County if the project is located within an unincorporated area) and shall maintain active business license(s) as required by the jurisdiction(s) in which the project is located. The successful contractor and all subcontractors must remain in compliance with these requirements throughout the duration of the project.

9.6 WARRANTY

In addition to any warranties specified in the drawings and any manufacturer's warranty, Contractor shall warrant the workmanship and manufacturing for a minimum of one year.

10. OCFA RESPONSIBILITIES

OCFA will coordinate with training operations to ensure Contractor has access to necessary areas to perform work. OCFA shall be responsible for the registration of the project with the CA DIR subsequent to contract award.

11. DELIVERABLES

11.1 PROJECT COMPONENTS

Remodel of existing restroom and showers throughout the station. Work scope to include the relocation and remodel of the existing gym, new gender-neutral restroom/showers, new ADA restroom and shower, reconfiguration and re-fixturing of existing restroom and showers, remove and replace the existing roof system and miscellaneous upgrades, as noted.

11.2 SPECIFICATIONS

11.2.1 MINIMUM SPECIFICATIONS

The purpose of the information provided herein is to establish the minimum requirements for the supplies, materials, and equipment used for this project. It is not the intention of OCFA to exclude suppliers of similar or equal products of the types specified. Provided specifications, brands, and/or manufacturers describe OCFA expectations for the equipment, supplies and materials to be acquired.

11.2.2 EQUIVALENT ALTERNATE ITEMS

11.2.2.1 EQUIPMENT SUBMITTALS

As noted throughout Section 5, deviations from the specifications provided herein are not preferred but in some instances may be accepted. OCFA retains the sole right to determine whether proposed deviations to the specified items are acceptable. Any bidder offering items or equipment as equivalent alternatives to those items specified must submit documentation in accordance with the requirements outlined in Section 5 to substantiate that the item is equal no less than ten (10) business days prior to the bid deadline. Failure to do so may result in the bid that includes such alternative(s) being deemed non-responsive. As part of the evaluation of proposed alternate items, OCFA may request additional product information or product samples. Such information or samples must be submitted at no expense to OCFA by an agreed-upon due date for inspection and approval prior to contract award. Failure to comply with the request, or failure of the proposed alternate product to meet the required specifications, may be cause for OCFA to deem the bid that includes such alternative(s) to be non-responsive.

11.2.2.1 ADDITIONAL SUBMITTALS

Contractor shall submit for approval all items and documentation prior to beginning work in accordance with the requirements outlined in Section 5. In addition to the requirements specified in Section 5, any equivalent alternate items offered as a submittal during the course of construction must include documentation to substantiate that the item is equal. As part of the evaluation of proposed alternate items, OCFA may request additional product information or product samples. Such information or samples must be submitted at no expense to OCFA by an agreed-upon due date for inspection and approval prior to installation. Failure to comply with the request, or failure of the proposed alternate product to meet the required specifications, may be cause for OCFA to deem the Contractor to have caused a delay in the project, to be remedied by the assessment of liquidated damages, as described in the Contract Documents (see Section 4).

11.2.3 MATERIALS

Materials shall be pure, unadulterated, first quality and shall be delivered to the project in original unbroken packages bearing the maker's name and brand number. Materials shall comply with all requirements described in Section 5. Materials shall be submitted for approval prior to use. Contractor must furnish additional stock of materials, as specified in Section 5.

OCFA intends to purchase and keep as inventory commonly replaced items for the purpose of expediting future repairs. Should Contractor or subcontractors utilize this inventory to perform repairs, use of these items will not void or otherwise negatively affect the warranty. Contractor or subcontractors must replace the stock at no cost to OCFA.

11.3 PROJECT EXECUTION

11.3.1 WORKMANSHIP

Contractor shall:

- a. Perform work under conditions best suited to produce the specified deliverables.
- b. Correct all work that does not comply with the intent of the specification and/or does not meet the approval of OCFA.
- c. Protect all adjacent areas and surfaces from damage from work performed (i.e. automobiles, sidewalks, asphalt, concrete, plants, etc.).
- d. Coordinate with the OCFA before using noisy, motorized equipment.
- e. Take all necessary steps to protect the public and all property concerned.

11.3.2 CLEAN-UP

Contractor shall, at completion of work each day, remove all debris and rubbish resulting from this project and leave workspaces in a clean condition subject to OCFA approval.

11.3.3 PROTECTION

Contractor shall protect work of other trades, correct damage by cleaning, repairing or replacing, and repainting, as approved by OCFA.

11.3.4 REPAIR

At completion of work, Contractor shall repair and/or restore damaged work of other trades.

11.3.5 ACCEPTANCE DOCUMENTATION

Upon completion of work, Contractor shall provide the documents specified herein for final review and acceptance by OCFA.

11.3.6 HEALTH AND SAFETY

Contractor shall ensure compliance at all times with the Health and Safety requirements in Section 86 of the Contract Agreement.

11.4 SCHEDULES, TIMELINES, AND MEETINGS

11.4.1 COORDINATION OF WORK

Prior to beginning work, Contractor shall prepare a schedule and submit to OCFA for approval. Contractor shall coordinate the commencement of all work with OCFA so as not to cause inconvenience to the facility. Contractor parking, along with the placement of all trailers, equipment and materials must be coordinated with OCFA in advance.

All work at the location must be coordinated with OCFA in a manner that shall accommodate the requirements of OCFA personnel. Contractor shall post notices in conspicuous places at least three to five days in advance warning occupants what date work will begin. Work, deliveries or efforts which may impede existing circulation roadways shall be scheduled at least seven (7) days in advance.

11.4.2 HOURS OF WORK

Work shall be performed Monday through Friday between the hours of 7:00 AM and 5:00 PM. Overtime and after-hours work is not permitted, unless otherwise coordinated with and approved by the city in which the project is located.

11.4.3 PROJECT TIMELINE

OCFA anticipates that:

- Project work will begin no later than **60** days after the agreement and all other required award documents are received and approved by OCFA
- Project will be complete within **120** days

12. MEETINGS

Meetings between OCFA and Contractor will include, at a minimum, the following:

12.1 PRE-AWARD MEETING

This meeting will aid OCFA in determining responsibility of Contractor and to finalize the specifications and services to be provided.

12.2 PRE-CONSTRUCTION JOB WALKS

These meetings with OCFA, the staff of the city in which the project is located, and others as necessary and/or required by law will be coordinated by the Contractor.

12.3 PROJECT STATUS MEETINGS

Weekly meetings held in person, unless otherwise determined by OCFA.

12.4 ACCEPTANCE

Meetings regarding project acceptance and warranty punch list items.

12.5 ADDITIONAL

Other meetings deemed necessary by OCFA for contract compliance.

SECTION 2: INSTRUCTIONS TO BIDDERS

13.1 AMENDMENT OF INVITATION FOR BID

Notification via email will be sent to vendors listed as “Prospective Bidders” on PlanetBids in the event that a Q&A set or amendment to the IFB is released. The bidder shall acknowledge receipt of an amendment to this Invitation for Bid on the bid submittal. The OCFA reserves the right to revise the bid documents prior to the bid opening date. Revisions, if any, shall be made by written Addenda.

13.1.1 Pursuant to Public Contract Code Section 4104.5, if OCFA issues an Addendum later than seventy-two (72) hours prior to the deadline for submission of bids, and the Addendum requires material changes, additions or deletions to the description of the work to be performed or the content, form or manner of submission of bids, OCFA will extend the deadline for submission of bids by at least seventy-two (72) hours. Otherwise, OCFA may determine, at its sole discretion, whether an Addendum requires that the date set for opening bids be postponed. Announcement of a new date, if any, will be made by Addenda. All bidders will be notified by e-mail when an addendum is posted to PlanetBids.

All Addenda issued before the time bids are due shall form part of the contract documents. It is the bidder’s responsibility to be familiar with Addenda issued. OCFA will deem any bid that fails to acknowledge all Addenda to be non-responsive. Bidders must acknowledge the Addenda in writing on the form provided in the bid documents.

13.2 INTERPRETATION OF BID DOCUMENTS

Discrepancies in, and/or omissions from the Specifications or other bid documents or questions as to their meaning shall be immediately brought to the attention of the Purchasing Manager by submission of a written request for interpretation or correction thereof no later than the deadline specified for questions specified in Section 1 of the Notice Inviting Bids. The person submitting the request will be responsible for its prompt delivery.

Any interpretation of the bid documents will be made only by addendum duly issued electronically to each bidder registered on the prospective bidder’s list. The OCFA will not be responsible for any explanations or interpretations provided in any other manner. No person is authorized to make any oral interpretation of any provision in the bid documents to any bidder, and no bidder should rely on any such oral interpretation.

14. DISPUTES RELATING TO THIS INVITATION FOR BID

In the event a dispute arises concerning any aspect of this bid, including specifications and/or process, the party bringing the dispute shall submit a written request for resolution to the Purchasing Department prior to the IFB’s due date and time.

In the event a dispute arises regarding this IFB’s Recommendation for Award or Denial of Award, the party bringing the dispute must do so in accordance with OCFA’s **Purchasing Ordinance, Article IX. Legal and Contractual Remedies**, which can be found online under “Doing Business with OCFA” at <https://www.ocfa.org/Uploads/Purchasing/OCFA%20Purchasing%20Ordinance.pdf>.

15. WITHDRAWAL OF BID

15.1 PRIOR TO BID DUE DATE AND TIME

At any time prior to the specified due date specified in IFB Section 1, an Offeror may formally withdraw the bid by a written letter, facsimile or electronic mail from the Offeror or an authorized representative to the OCFA Purchasing Manager, provided such letter, facsimile or electronic mail is actually and timely received by the OCFA Purchasing Manager. **Telephonic or oral withdrawals shall not be considered.**

15.2 AFTER BID DUE DATE AND TIME

In accordance with California Public Contract Code sections 5100-5110, Bidder shall not be relieved of the obligations of its bid unless by consent of OCFA, nor shall any change be made in the bid because of mistake. Bids may be withdrawn for mistake upon mutual written agreement of Bidder and OCFA, or if all of the following conditions apply:

- A mistake is made in the bid; and
- Written notice is provided to OCFA within five (5) working days from the date of the public opening specifying in the notice in detail how the mistake occurred. Telephonic or oral withdrawals will not be considered; and
- The mistake makes the bid materially different than Bidder intended it to be; and
- The mistake was made in filling out the bid and was not due to error in judgment or to carelessness in inspecting the site of the work, or in reading the plans or specifications.

Any bidder who claims a mistake or who forfeits its bid security (Bidder's Bond) shall be prohibited from participating in further bidding on the project on which the mistake was claimed or bid security was forfeited.

16. INDEMNIFICATION

Bidder agrees to protect, defend, indemnify, save and hold harmless the OCFA and its officers, officials, employees and volunteers from any and all claims, liabilities, expenses, or damages of any nature, including attorney fees, for injury to or death of any person (Bidder's employees included), and for injury to any property, including consequential damages of any nature resulting there from, arising out of or in any way connected with the Bidder's submittal.

17. RESERVATIONS (RIGHTS RESERVED TO OCFA)

OCFA reserves the right to reject any or all bids or any part thereof; to rebid the solicitation; to reject non-responsive or non-responsible bids; to reject unbalanced bids; to reject bids where the terms, prices, and/or awards are conditioned upon another event; to reject individual bids for failure to meet any requirement; to award by item, part or portion of an item, group of items, or total; to make multiple awards; to investigate the qualifications of any bidder under consideration; to modify or amend this IFB in writing; to waive minor irregularities, defects, omissions, technicalities or form errors in any bid. Waiver of one irregularity does not constitute waiver of any other irregularity. OCFA may seek clarification of the bid from the bidder at any time, and failure to respond is cause for rejection. OCFA is required to make an award that is in the best interest of the OCFA. All decisions on compliance, evaluation, terms and conditions shall be made solely at the OCFA's discretion and made to favor the OCFA. OCFA may cancel this solicitation at any time.

The OCFA may reject any bid which, in its sole opinion, does not accurately reflect the cost to perform the work as compared to other bids received and/or to project estimates. In addition, because the OCFA may elect to include or exclude any of the bid items and alternate bid items (if applicable) at its sole and absolute discretion, each bidder must ensure that each bid items contain a proportionate share of profit, overhead and other costs or expenses which will be incurred by the bidder. The OCFA may deem any bid which unevenly weights or allocates costs, including but not limited to overhead and profit to one or more particular bid items as non-responsive. No contract will be executed unless the bidder is licensed in accordance with the provisions of the State law.

18. INSPECTION OF SITE/MANDATORY MEETING AND JOB WALK

Each prospective bidder is responsible for becoming familiar with the conditions of the project site as well as those relating to the construction and labor of the project, to fully understand the facilities, conditions, difficulties and restrictions which may impact the completion of the project. Attendance by a representative of each prospective contractor at the mandatory meeting as stated in the request for

informal bid is required. **Any bid received by a contractor not represented at the mandatory meeting will be rejected and deemed non-responsive.**

19. CONTRACTOR AND SUBCONTRACTOR LICENSING REQUIREMENTS

Bidder and all listed Subcontractors shall possess valid California Contractor's licenses, as required herein and as appropriate for each specialty subcontracted at the time of bid submission, pursuant to California Public Contract Code Section 3300 and Business and Professions Code Section 7028.15. Licenses must be maintained throughout the duration of the contract resulting from this IFB.

Pursuant to Section 7028.15 of the Business and Professions Code, the OCFA shall consider any bid submitted by a contractor not currently licensed in accordance with California law and pursuant to the requirements found in the bid documents to be nonresponsive, and the OCFA shall reject the bid. The OCFA shall have the right to request evidence of all valid license(s) currently held by the bidder and each of the subcontractors listed in the bid before awarding the contract. In such cases, Bidders shall provide evidence of valid licenses satisfactory to the OCFA within five (5) calendar days. Pursuant to Public Contract Code Section 20676, sellers of "mined material" must be on an approved list of sellers published pursuant to Public Resources Code Section 2717(b) in order to supply mined material for this contract.

20. SB 854 DEPARTMENT OF INDUSTRIAL RELATIONS REGISTRATION

No contractor or subcontractor may be listed on an offer for a public works project unless registered with the California Department of Industrial Relations pursuant to California Labor Code Section 1725.5, with limited exceptions from this requirement for bid purposes only under California Labor Code Section 1771.1(a). No contractor or subcontractor may be awarded a contract for public work, or engage in the performance of any public works project unless registered with the California Department of Industrial Relations pursuant to California Labor Code Section 1725.5. Pursuant to SB 854, the DIR registration number of each subcontractor must be identified on the bid; **failure to do so may result in the bid being deemed non-responsive.**

The contract resulting from this solicitation is subject to compliance monitoring and enforcement by the California Department of Industrial Relations. OCFA reports all public works contracts to the DIR subsequent to contract execution.

The OCFA will not recognize any claim for additional compensation because of the payment by the Contractor of any wage rate in excess of the prevailing wage rate set forth in the contract. The possibility of wage increases is one of the elements to be considered by the Contractor in determining bid pricing, and will not under any circumstances be considered as the basis of a claim against the OCFA on the contract resulting from this solicitation.

21. PREVAILING WAGE

This project is a public work in the State of California, funded in whole or in part with public funds. Therefore, the applicable prevailing wage rates will be enforced. The work is subject to the payment of not less than prevailing wages under California Labor Code Section 1770 et seq. Contractor must comply with all related provision of the California Labor Code if awarded the agreement, including but not limited to:

- The provisions of California Labor Code Section 1775 relating to payment of prevailing wages, and
- Section 1777.5 relating to employment of apprentices, and
- Section 1811-1813 relating to the payment of overtime.

Failure to comply with the applicable prevailing wage, overtime, and apprenticeship requirements may result in penalties.

Contractors are hereby notified that the Director of Industrial Relations has ascertained the general prevailing rate of per diem wages and the rates for overtime and holiday work in the locality in which the work is to be performed for each craft, classification or type of worker needed to perform the work under the contract which will be awarded to the successful contractor.

Additional information is available at the Department of Industrial Relations website at:

<http://www.dir.ca.gov/oprl/DPreWageDetermination.htm>.

Contractors are further notified that this project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. Additional information on the Compliance Monitoring Unit requirements can be found at:

<https://www.dir.ca.gov/Public-Works/PublicWorksEnforcement.html>.

22. DEBARMENT OF CONTRACTORS

In accordance with the provisions of the Labor Code, contractors or subcontractors may not perform work on a public works project with a subcontractor who is ineligible to perform work on a public project pursuant to Section 1777.1 or Section 1777.7 of the Labor Code and Federal "Excluded Parties List System". Any contract on a public works project entered into between a contractor and a debarred subcontractor is void as a matter of law. A debarred subcontractor may not receive any public money for performing work as a subcontractor on a public works contract. Any public money that is paid to a debarred subcontractor by the Contractor for the Project shall be returned to the OCFA. The Contractor shall be responsible for the payment of wages to workers of a debarred subcontractor who has been allowed to work on the Project. In order to prohibit the procurement of any goods or services ultimately funded by Federal awards from debarred, suspended or otherwise excluded parties, each Contractor will be screened at the time of response to ensure the Contractor, its principal and their named subcontractors are not debarred, suspended or otherwise excluded by the United States Government in compliance with the requirements of 2 Code of Federal Regulations (CFR) 200.12 7 Code of Federal Regulations (CFR) 3016.35, 28 CFR 66.35, 29 CFR 97.35, 34 CFR 80.35, 45 CFR 92.35 and Executive Order 12549.

23. CONTRACT

A response to this IFB is an offer to contract with OCFA based upon the terms, conditions, and specifications contained within this document, all Addenda, and the Construction Services Agreement, attached hereto as Section 4. Submission of a bid confers on the bidder no right to an award or to a subsequent contract. No binding contract will exist between the bidder and the OCFA unless and until the OCFA executes a written contract or purchase order.

24. BID DOCUMENTS & FORMS

Bid submittals are to be prepared using the bid forms which are included in this IFB Document. Bids shall be executed by an authorized signatory. As a condition of bidding and in accordance with the provisions of Section 20101 of the California Public Contract Code, prospective bidders are required to submit all the bid forms listed in the Bidder's Checklist. Failure to do so may result in the rejection of the bid.

25. PREPARATION OF BID

All bids shall incorporate the forms provided in this IFB document. It is permissible to copy these forms as required. Facsimiles or electronic mail bids shall not be considered.

The Bid form and any solicitation amendments must be signed and returned with the bid. The forms submitted shall be signed by a person authorized to submit an offer. Authorized signature on the Bid forms shall constitute an irrevocable offer to provide services specified herein. Offeror shall submit any additional requested documentation, signifying intent to be bound by the terms of the agreement.

- The authorized person signing the bid shall initial all interlineations, annotations, deletions, alterations, erasures and other modifications on the bid.
- Periods of time, stated as days, shall be in calendar days.
- It is the responsibility of all Offerors to examine the entire Request for Bid package and seek clarification of any requirement that may not be clear and to check all responses for accuracy before submitting a bid. Negligence in preparing a bid confers no right of withdrawal after the due date and time.
- OCFA shall not reimburse the cost of developing, presenting, submitting or providing any response to this solicitation.
- Offeror must list any subcontractors to be utilized in the performance of the services specified herein. For each subcontractor, details on respective qualifications must be included.
- Each bidder shall submit its bid in strict conformity with the requirements of the bid documents. Unauthorized additions, modifications, revisions, conditions, limitations, exclusions or provisions attached to a bid may render it non-responsive and may cause its rejection. Bidders shall not delete, modify, supplement printed matter on the bid forms.
- **Verbal, telephonic, facsimile, email or other electronic bids or modifications will not be considered.**

26. BID CERTIFICATION

By signature on the Bid Response Forms, Bidder certifies:

- The Bidder has thoroughly examined and become familiar with the requirements of this IFB;
- Clear understanding of the rules as defined in this IFB and compliance with all terms and conditions specified herein;
- The Bidder is an authorized and/or certified retailer and/or installer of the specified items;
- The submission of the bid did not involve collusion or other anti-competitive practices;
- The bid is compliant with all state and federal laws;
- The Bidder will not discriminate against any employee or applicant for employment in violation of Federal or State law;
- The Bidder has not given, offered to give, and does not intend to give at any time hereafter, any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor, meal or service to any Director, officer, or employee of OCFA in connection with the submitted offer;
- That the individual signing the submittal is an authorized agent for the Bidder and has the actual authority to legally bind the Bidder to the Contract;
- That its principal and named subcontractors are not debarred, suspended or otherwise excluded by the United States Government, in compliance with the requirements of 7 Code of Federal Regulations (CFR) 3016.35, 28 CFR 66.35, 29 CFR 97.35, 34 CFR 80.35, 45 CFR 92.35 and Executive Order 12549.

27. ACCEPTANCE PERIOD

Unless otherwise specified herein, bids are firm and may be accepted by OCFA at any time within 180 days of bid opening.

28. BID OPENING

All the bids opened by the OCFA will be subject to further evaluation with respect to responsiveness of the bid and for purposes of determining that the bidder is responsible.

29. SUBLETTING AND SUBCONTRACTING.

Pursuant to the Subletting and Subcontracting Fair Practices Act (commencing with Section 4100 of the Public Contract Code), bidders are required to list in their proposal the name, business address, California contractor license number, and public works contractor registration number issued pursuant to Section 1725.5 of the Labor Code of each subcontractor who will perform work or labor or render services in or about the construction of the work or improvement, or a subcontractor who specially fabricates and installs a portion of the work or improvement according to detailed drawings contained in the Plans and

Specifications in excess of 1/2 of 1% of the prime Contractor's total bid or \$10,000, whichever is greater. If a subcontractor's California contractor license number or public works contractor registration number are submitted incorrectly in the bid, it will not be grounds for filing a bid protest or grounds for considering the bid nonresponsive if the corrected subcontractor's California contractor license number is submitted to OCFA within 24 hours after the bid opening.

If the Bidder fails to list a subcontractor for a portion of work or if the Bidder lists more than one subcontractor of the same portion of work in excess of 1/2 of 1% of the total bid or \$10,000, whichever is greater, the Bidder agrees that it is fully qualified to perform that portion of work itself, and that the Bidder shall perform that portion of work itself. If after award of the contract, the Bidder actually subcontracts that portion of work, except as provided in Public Contract Code Section 4107 or 4109, the Bidder shall be subject to the penalties listed in Section 4111 of the Public Contract Code. It is the OCFA's intent for the Subletting and Subcontracting Fair Practices Act to apply to all phases of the work.

29.1 NO INCREASE IN BID COST DUE TO SUBSTITUTION OF SUBCONTRACTOR.

In the event that a subcontractor is substituted in any manner for any reason, any increased cost related to such substitution shall be the sole responsibility of the Contractor. Such substitution shall not cause or result, directly or indirectly, in any increase in the bid price. This subsection shall not be construed to be prior consent to substitution of subcontractors, nor to authorize any substitution that is prohibited by the Subletting and Subcontracting Fair Practices Act.

30. PRICING

Contractors shall provide itemized pricing. No aggregate bids will be considered. The bid must state the amount for which the contractor offers to supply all labor, materials, equipment, tools, transportation, services and applicable taxes to perform all work specified. Bids shall not contain any conditions, limitations or provisions for the work to be done. Alternative bids will not be considered unless requested. The contractor shall set forth for each item of work, in clearly legible figures, a unit item price and a total for each item in the respective spaces provided. In case of a variation between the unit price and the totals shown by the contractor, the unit price will take precedence. In case of discrepancy between the numerical lump sum price and the written lump sum price, the written lump sum price shall prevail.

31. TAXES

No mention shall be made in the proposal of Sales Tax, Use Tax, or any other tax, as all amounts set forth in the bid will be deemed and held to include any such taxes that may be applicable. Bidder acknowledges and agrees that OCFA shall not be responsible for the payment of any increase in any Sales Tax, Use Tax, or any other tax that takes effect after award.

32. COMPLIANCE WITH LAWS

All bids shall comply with current and applicable federal, state, and local laws relative thereto.

33. CRITERIA FOR EVALUATION AND AWARD

The OCFA will award the contract to the lowest responsive, responsible bidder as required by law. The OCFA evaluates three categories of information: responsiveness, responsibility, and price. Bids must meet the following responsiveness and responsibility criteria in order to be considered for award:

- a) RESPONSIVENESS: OCFA will determine whether the bid complies with the instructions for submitting bids including completeness of bid which encompasses the inclusion of all required attachments and submissions. The OCFA will reject any bids that are submitted late. Failure to meet the specifications, project timeline, product availability, or other requirements may result in rejection.

- b) **RESPONSIBILITY:** OCFA will determine whether the bidder is one with whom it can or should do business. Factors that OCFA may evaluate to determine whether a contractor is a “responsible bidder” for purposes of the Public Contract Code include, but are not limited to: excessively high or low priced bids, past performance, references (including those found outside the bid), compliance with applicable laws - including tax laws, business standing, bidder's record of performance and integrity - e.g. has the bidder been delinquent or unfaithful to any contract with OCFA, whether the bidder is qualified legally to contract with the OCFA, financial stability and the perceived ability to perform completely as specified. A bidder must at all times have financial resources sufficient, in the opinion of the OCFA, to ensure performance of the contract and must provide proof upon request. OCFA staff may also use Dun & Bradstreet and/or any generally available industry information to assist in making such determinations. The OCFA reserves the right to inspect and review bidder’s facilities, equipment and personnel and those of any identified subcontractors, and by submitting a bid, bidder consents thereto. The OCFA will determine whether any failure to supply information, or the quality of the information, will result in rejection.
- c) **PRICE:** OCFA will then evaluate bids that have met the requirements above for price, quality of product, life cycle cost, maintenance, warranty, etc.

34. GROUNDS FOR DISQUALIFICATION

OCFA may disqualify a submittal for any of the following reasons:

- Contact regarding this procurement is made with any OCFA Director, officer or employee other than those in the Purchasing Department from the time of issuance until the end of the dispute period;
- Evidence of collusion, directly or indirectly, among bidders regarding the amount, terms, or conditions of this solicitation is found;
- Evidence of submitting incorrect information in the response to this solicitation or misrepresenting or failing to disclose material facts during the award process is found;
- Submittal of added terms, conditions, or agreements with the bid document;
- Offering of gifts or souvenirs, even of minimal value, to OCFA Directors, officers or employees;
- The existence of any lawsuit, unresolved contractual claim or dispute between the Bidder and OCFA;
- Evidence of the Bidder’s inability to successfully complete the responsibilities and obligations of the bid is found;
- Bidder’s default under any OCFA agreement.
- No bidder shall be allowed to make, submit or be interested in more than one bid. No person, firm, corporation, or other entity may submit a sub-proposal to a bidder, or quote prices of materials to a bidder when also submitting as a prime on the same project.

35. PUBLIC RECORD

All bids submitted in response to this IFB shall become the property of OCFA and shall become a matter of public record available for review when required by law, including but not limited to the California Public Records Act.

36. CLAYTON ACT AND CARTWRIGHT ACT

In accordance with Section 7103.5 of the Public Contract Code, in entering into a public works contract or a subcontract to supply goods, services or materials pursuant to a public works contract, the Contractor or subcontractor offers and agrees to assign to OCFA all rights, and interest in and all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Chapter 2 (commencing with Section 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services, or materials pursuant to the public works contract or the subcontract. This assignment shall be made and become effective at the time the awarding body tenders final payment to the Contractor, without further acknowledgment by the parties.

37. INSURANCE

The successful bidder shall procure the insurance in the form and in the amount specified in the Contract Documents, including but not limited to the General Conditions. Failure to do so may result in forfeiture of the bid guarantee. No time extensions or extra payments shall be made to contractor for delays it may encounter in obtaining such coverage.

Contractor shall not commence work under the agreement until he/she has obtained all required insurance, including any and all endorsements, and the insurance has been approved by the OCFA as to form, amount, and carrier, nor shall Contractor allow any subcontractor to commence any work until all insurance required of the subcontractor has been obtained and approved.

38. NOTICE OF INTENT TO AWARD/EXECUTION OF CONTRACT

A notification of OCFA's intent to award contract ("Notice of Intent to Award") will be sent to the successful Offeror(s). Following receipt of the Notice of Intent to Award, and within fourteen (14) calendar days of the notice, the successful Offeror(s) shall complete and/or submit the items listed in Exhibit 4A: Transmittal Page – Bid Award Documents to the Purchasing & Materials Manager or designee.

The successful contractor or any designated subcontractors shall not perform any work on the project prior to attending the pre-construction conference and executing the appropriate certification. In case of failure of the Offeror(s) to execute and return all required documents in a form satisfactory to OCFA and within the time allowed, the OCFA may, at its option, consider that the Offeror(s) has/have abandoned the contract.

39. SUBSTITUTION OF SECURITIES

In conformance with Public Contract Code Section 22300, which is incorporated herein by this reference, the Contractor may substitute securities for any monies retained by the OCFA to ensure performance under the Contract or, in the alternative, may request payment of retention earned directly to an escrow agent.

At the request and expense of the Contractor, the Contractor has the option to deposit securities, which have been approved by the OCFA, with a State or Federally chartered bank as the escrow agent or require the OCFA to deposit 5% of each progress payment with the escrow agent. Said securities will be used as a substitute for retention earnings required to be withheld by the OCFA pursuant to the construction contract. Said securities shall have no obligation to any other construction contract for substitution of securities in lieu of retention. When the Contractor deposits the OCFA approved securities with the escrow agent, the escrow agent shall notify the OCFA within 10 calendar days of the deposit. Said securities shall be evaluated quarterly by the escrow agent to verify the current market value. If the current market value of said securities falls below the required amount, the escrow agent shall notify the Contractor and require additional securities and/or cash to be submitted for OCFA approval, and to be held in the escrow account to meet the Contractor's obligations. The escrow agent shall hold said securities until such time as the escrow agent receives written notification from the OCFA that the Contractor has satisfactorily completed his Contract obligations.

The type of securities deposited and the method of release shall be approved by the OCFA's Office of General Counsel.

If the Contractor chooses not to exercise its rights under Public Contract Code Section 22300, the full five percent (5%) retention will be deducted from all payments. The final retention will be authorized for payment thirty-five (35) days after the date of recordation of the Notice of Completion, if no stop notices have been filed. The OCFA may withhold from release of the final retention amounts authorized under Public Contracts Code Section 7107 and/or 125% of the cumulative amounts identified in all stop notices.

40 AWARD AND EXECUTION OF CONTRACT. If a bid bond is submitted with a 10% of Bid designation for the amount as noted in the OCFA Approved Bid Bond form, a revised Bid Bond with numerical dollar values, both in words and with digits, shall be submitted to the OCFA within three (3) working days of bid opening.

Within seven (7) calendar days after the date of the Notice of Apparent Low Bidder, the Contractor shall execute and return the following documents to the OCFA:

- All required evidence of insurance
- Two (2) Original Signed Contract Agreements

Within fourteen (14) calendar days after the date of the Notice of Award, the Contractor shall execute and return the following documents to the OCFA, as applicable to the project:

- Faithful Performance Bond
- Material and Labor Bond
- Construction Schedule
- Traffic Control Plan
- Water Pollution Control Plan
- Form W-9
- Encroachment Permit Application
- Construction Materials Submittals

FAILURE TO COMPLY WITH ALL OF THE ABOVE WILL RESULT IN ANNULMENT OF THE AWARD AND FORFEITURE OF THE PROPOSAL GUARANTEE AT THE SOLE DISCRETION OF OCFA.

The Contract Agreement shall not be considered binding upon the OCFA until executed by the authorized OCFA officials.

3A: TRANSMITTAL PAGE

TO: Orange County Fire Authority

FROM:

Blackstone Builders Inc.

(Legal Name of Contractor)

PROJECT: FIRE STATION 4 RESTROOM REMODEL WITH MINOR FACILITY UPDATES

The contractor will accept in full payment for the work specified herein the following total lump sum amount, inclusive of all applicable taxes and markup (transferred from Exhibit 3J: Bid Sheets):

BID LUMP SUM:

NUMERICAL: \$ 1,301,593.00

WRITTEN: One million three hundred one thousand five hundred ninety-three dollars

ACKNOWLEDGMENT OF ADDENDA:

No.: 1 Dated: 9/7/23 No.: _____ Dated: _____
No.: 2 Dated: 9/7/23 No.: _____ Dated: _____

BIDDER'S CHECKLIST:

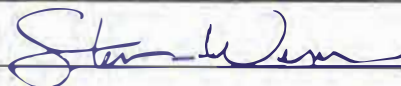
Bidder certifies that the following documents are included in its Bid:

- Transmittal Page (Exhibit 3A)**
- List of Subcontractors (Exhibit 3F)**
- Project Approach and Schedule (Exhibit 3K)**
- Bidder's Bond (Exhibit 3B)**
- Designation of Sureties (Exhibit 3G)**
- List of Project References (Exhibit 3L)**
- Certification of Bid (Exhibit 3C)**
- Bidder's Certification of Compliance with Insurance Requirements (Exhibit 3H)**
- Qualifications Questionnaire (Exhibit 3M)**
- Contractor's Licensing Statement (Exhibit 3D)**
- Certification of Site Examination (Exhibit 3I)**
- Party and Participant Disclosure Forms (Exhibit 3N)**
- Non-Collusion Affidavit (Exhibit 3E)**
- Bid Sheets (Exhibit 3J)**

MINIMUM QUALIFICATIONS:

Bidder Meets the Minimum Qualifications as follows:

CSLB License #: 832936 Expiration: 06/30/2025
DIR Registration #: 1000021619 Expiration: 06/30/2026
Number of Years of Experience: 12

SIGNATURE OF CONTRACTOR: 

PRINTED NAME: Steven Winn **TITLE:** Secretary

3B: BIDDER'S BOND

(10% of Agreement Price)

Bidders must use this form, NOT a surety company form

KNOW ALL PERSONS BY THESE PRESENTS:

That the undersigned, Blackstone Builders, Inc. as Principal ("Principal"), and Swiss Re Corporate* as Surety ("Surety"), a corporation organized and existing under and by virtue of the laws of the State of Missouri and authorized to do business as a surety in the State of California, are held and bound unto the Orange County Fire Authority ("OCFA") of Orange County, State of California as Obligee, in the sum of Ten Percent of Bid Amount Dollars (\$ 10% of Bid) lawful money of the United States of America, for the payment of which sum well and truly to be made, we, and each of us, bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

*Solutions America Insurance Corporation

THE CONDITION OF THIS OBLIGATION IS SUCH that whereas the Principal has submitted a bid to the OCFA for all work specifically described in the accompanying bid;

NOW, THEREFORE, if the Principal is awarded the Project and, within the time and manner required under the Bid Documents, after the prescribed forms are presented to Principal for signature, enters into a written contract ("Agreement"), in the prescribed form in accordance with the bid, and files two bonds, one guaranteeing faithful performance and the other guaranteeing payment for labor and materials as required by law, and meets all other conditions to the contract between the Principal and the Obligee becoming effective, or if the Principal shall fully reimburse and save harmless the Obligee from any damage sustained by the Obligee through failure of the Principal to enter into the Agreement and to file the required performance and labor and material bonds, and to meet all other conditions to the Agreement between the Principal and the Obligee becoming effective, then this obligation shall be null and void; otherwise, it shall be and remain in full force and effect. The full payment of the sum stated above shall be due immediately if Principal fails to submit and execute the Agreement award documents as required in the Invitation for Bid Document within the timeline specified therein.

Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Agreement or the call for bids, or to the work to be performed thereunder, or the specifications accompanying the same, shall in any way affect its obligation under this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Agreement or the call for bids, or to the work, or to the specifications.

In the event suit is brought upon this bond by the Obligee and judgment is recovered, the Surety shall pay all costs incurred by the Obligee in such suit, including a reasonable attorneys' fee to be fixed by the Court.

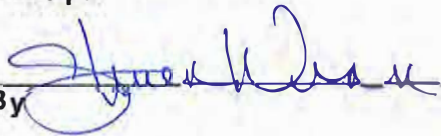
If the OCFA awards the bid, the security of unsuccessful bidder(s) shall be returned within sixty (60) days from the time the award is made. Unless otherwise required by law, no bidder may withdraw its bid for ninety (180) days after the date of the bid opening.

[Signature Page Follows]

IN WITNESS WHEREOF, two (2) identical counterparts of this instrument, each of which shall for all purposes be deemed an original thereof, have been duly executed by the Principal and Surety above named, on the 18th day of September, 2023, accordance with Article 5 - commencing at section 1860, chapter 1, part 7, division 2 of the Labor Code, this certificate must be signed and filed with the awarding body prior to performing any work under this Contract:

CONTRACTOR:
(Affix Corporate Seal)

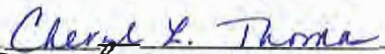
Blackstone Builders, Inc.
Principal

By 

Steven Winn, Secretary
Print Name and Title of Signatory

SURETY:
(Affix Corporate Seal)

Swiss Re Corporate Solutions America Insurance Corporation
Surety


By Cheryl L. Thomas, Attorney-In-Fact

Rohm Insurance Agency
Name of California Agent of Surety

26 Plaza Square Ste. 200 Orange, CA 92866
Address of California Agent of Surety

(714) 516-2960
Telephone Number of California Agent of Surety

Attach Notary acknowledgments for all signatures. Attach Power of Attorney Attach Power of Attorney if executed by Attorney-in-Fact. The California Department of Insurance must authorize the Surety to be an admitted Surety Insurer.

ALL-PURPOSE CERTIFICATE OF ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California }

County of Orange }

On September 18, 2023 before me, Beata A. Sensi, Notary Public
(Here insert name and title of the officer)

personally appeared Steven Winn
who proved to me on the basis of satisfactory evidence to be the person(~~s~~) whose name(~~s~~) is/~~are~~ subscribed to the within instrument and acknowledged to me that he/~~she/they~~ executed the same in his/~~her/their~~ authorized capacity(~~ies~~), and that by his/~~her/their~~ signature(~~s~~) on the instrument the person(~~s~~), or the entity upon behalf of which the person(~~s~~) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Beata A. Sensi
Notary Public Signature

(Notary Public Seal)



ADDITIONAL OPTIONAL INFORMATION

DESCRIPTION OF THE ATTACHED DOCUMENT

BID BOND
(Title or description of attached document)

Blackstone Builders, Inc.
(Title or description of attached document continued)

Number of Pages 2 Document Date 9/18/23

CAPACITY CLAIMED BY THE SIGNER

Individual (s)

Corporate Officer
Secretary
(Title)

Partner(s)

Attorney-in-Fact

Trustee(s)

Other _____

INSTRUCTIONS FOR COMPLETING THIS FORM

This form complies with current California statutes regarding notary wording and, if needed, should be completed and attached to the document. Acknowledgments from other states may be completed for documents being sent to that state so long as the wording does not require the California notary to violate California notary law.

- State and County information must be the State and County where the document signer(s) personally appeared before the notary public for acknowledgment.
- Date of notarization must be the date that the signer(s) personally appeared which must also be the same date the acknowledgment is completed.
- The notary public must print his or her name as it appears within his or her commission followed by a comma and then your title (notary public).
- Print the name(s) of document signer(s) who personally appear at the time of notarization.
- Indicate the correct singular or plural forms by crossing off incorrect forms (i.e. he/~~she/they~~- is/~~are~~) or circling the correct forms. Failure to correctly indicate this information may lead to rejection of document recording.
- The notary seal impression must be clear and photographically reproducible. Impression must not cover text or lines. If seal impression smudges, re-seal if a sufficient area permits, otherwise complete a different acknowledgment form.
- Signature of the notary public must match the signature on file with the office of the county clerk.
 - ❖ Additional information is not required but could help to ensure this acknowledgment is not misused or attached to a different document.
 - ❖ Indicate title or type of attached document, number of pages and date.
 - ❖ Indicate the capacity claimed by the signer. If the claimed capacity is a corporate officer, indicate the title (i.e. CEO, CFO, Secretary).
- Securely attach this document to the signed document with a staple.

ALL- PURPOSE CERTIFICATE OF ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California }

County of Orange }

On 9/18/2023 before me, W.Walker, Notary Public
(Here insert name and title of the officer)

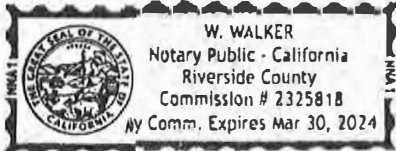
personally appeared Cheryl L. Thomas
who proved to me on the basis of satisfactory evidence to be the person~~(s)~~ whose name~~(s)~~ is/~~are~~ subscribed to the within instrument and acknowledged to me that he/~~she/they~~ executed the same in his/~~her/their~~ authorized capacity~~(ies)~~, and that by his/~~her/their~~ signature~~(s)~~ on the instrument the person~~(s)~~, or the entity upon behalf of which the person~~(s)~~ acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

W. Walker
Notary Public Signature

(Notary Public Seal)



ADDITIONAL OPTIONAL INFORMATION

DESCRIPTION OF THE ATTACHED DOCUMENT
Blackstone Builders, Inc.
(Title or description of attached document)
Bid Bond
(Title or description of attached document continued)
Number of Pages 2 Document Date 9/18/23

CAPACITY CLAIMED BY THE SIGNER

Individual (s)
 Corporate Officer
_____ (Title)
 Partner(s)
 Attorney-in-Fact
 Trustee(s)
 Other _____

INSTRUCTIONS FOR COMPLETING THIS FORM

This form complies with current California statutes regarding notary wording and, if needed, should be completed and attached to the document. Acknowledgments from other states may be completed for documents being sent to that state so long as the wording does not require the California notary to violate California notary law.

- State and County information must be the State and County where the document signer(s) personally appeared before the notary public for acknowledgment.
- Date of notarization must be the date that the signer(s) personally appeared which must also be the same date the acknowledgment is completed.
- The notary public must print his or her name as it appears within his or her commission followed by a comma and then your title (notary public).
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- Indicate the correct singular or plural forms by crossing off incorrect forms (i.e. ~~he/she/they~~, ~~is/are~~) or circling the correct forms. Failure to correctly indicate this information may lead to rejection of document recording.
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 - ❖ Indicate title or type of attached document, number of pages and date.
 - ❖ Indicate the capacity claimed by the signer. If the claimed capacity is a corporate officer, indicate the title (i.e. CEO, CFO, Secretary).
- Securely attach this document to the signed document with a staple.

Swiss Re Corporate Solutions America Insurance Corporation

Electronic Corporate Seal



Please read through the below Usage Guidelines for our Electronic Corporate Seal:

- 1) *This Electronic Corporate Seal has been provided for convenience. Swiss Re Corso cannot provide assurance that specific obligees will, or will not, accept an Electronic Corporate Seal. The preferred method remains a physically affixed seal. The Electronic Corporate Seal is used at the discretion of your Agency or Brokerage, and Swiss Re Corso disclaims any liability if the use of the Electronic Corporate Seal results in any instrument being rejected or challenged;*
- 2) *The Electronic Corporate Seal can only be used for electronically affixing a seal to a surety bond, or related instrument, that has been authorized by Swiss Re Corso and is being executed on behalf of Swiss Re Corso by your Agency or Brokerage pursuant to a valid Power of Attorney;*
- 3) *Your Agency or Brokerage may not transfer an Electronic Corporate Seal to any other entity or person without the written consent of Swiss Re Corso;*
- 4) *Swiss Re Corso may revoke permission to use the Electronic Corporate Seal at any given time;
and*
- 5) *Any use of the Electronic Corporate Seal outside of the above described guidelines is not authorized*

SWISS RE CORPORATE SOLUTIONS

SWISS RE CORPORATE SOLUTIONS AMERICA INSURANCE CORPORATION ("SRCSAIC")
SWISS RE CORPORATE SOLUTIONS PREMIER INSURANCE CORPORATION ("SRCSPIC")
WESTPORT INSURANCE CORPORATION ("WIC")

GENERAL POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, THAT SRCSAIC, a corporation duly organized and existing under laws of the State of Missouri, and having its principal office in the City of Kansas City, Missouri, and SRCSPIC, a corporation organized and existing under the laws of the State of Missouri and having its principal office in the City of Kansas City, Missouri, and WIC, organized under the laws of the State of Missouri, and having its principal office in the City of Kansas City, Missouri, each does hereby make, constitute and appoint:

TODD M. ROHM, CATHY S. KENNEDY, BEATA A. SENSI, CHERYL L. THOMAS, and SHANE WOLF

JOINTLY OR SEVERALLY

Its true and lawful Attorney(s)-in-Fact, to make, execute, seal and deliver, for and on its behalf and as its act and deed, bonds or other writings obligatory in the nature of a bond on behalf of each of said Companies, as surety, on contracts of suretyship as are or may be required or permitted by law, regulation, contract or otherwise, provided that no bond or undertaking or contract or suretyship executed under this authority shall exceed the amount of:

FIFTY MILLION (\$50,000,000.00) DOLLARS

This Power of Attorney is granted and is signed by facsimile under and by the authority of the following Resolutions adopted by the Boards of Directors of both SRCSAIC and SRCSPIC at meetings duly called and held on the 18th of November 2021 and WIC by written consent of its Executive Committee dated July 18, 2011.

"RESOLVED, that any two of the President, any Managing Director, any Senior Vice President, any Vice President, the Secretary or any Assistant Secretary be, and each or any of them hereby is, authorized to execute a Power of Attorney qualifying the attorney named in the given Power of Attorney to execute on behalf of the Corporation bonds, undertakings and all contracts of surety, and that each or any of them hereby is authorized to attest to the execution of any such Power of Attorney and to attach therein the seal of the Corporation; and it is

FURTHER RESOLVED, that the signature of such officers and the seal of the Corporation may be affixed to any such Power of Attorney or to any certificate relating thereto by facsimile, and any such Power of Attorney or certificate bearing such facsimile signatures or facsimile seal shall be binding upon the Corporation when so affixed and in the future with regard to any bond, undertaking or contract of surety to which it is attached."



By Erik Janssens
Erik Janssens, Senior Vice President of SRCSAIC & Senior Vice President of SRCSPIC & Senior Vice President of WIC

By Gerald Jagrowski
Gerald Jagrowski, Vice President of SRCSAIC & Vice President of SRCSPIC & Vice President of WIC



IN WITNESS WHEREOF, SRCSAIC, SRCSPIC, and WIC have caused their official seals to be heretunto affixed, and these presents to be signed by their authorized officers

this 10 day of NOVEMBER, 2022

State of Illinois ss
County of Cook

Swiss Re Corporate Solutions America Insurance Corporation
Swiss Re Corporate Solutions Premier Insurance Corporation
Westport Insurance Corporation

On this 10 day of NOVEMBER, 2022, before me, a Notary Public personally appeared Erik Janssens, Senior Vice President of SRCSAIC and Senior Vice President of SRCSPIC and Senior Vice President of WIC and Gerald Jagrowski, Vice President of SRCSAIC and Vice President of SRCSPIC and Vice President of WIC, personally known to me, who being by me duly sworn, acknowledged that they signed the above Power of Attorney as officers of and acknowledged said instrument to be the voluntary act and deed of their respective companies.



Christina Manisco
Christina Manisco, Notary

I, Jeffrey Goldberg, the duly elected Senior Vice President and Assistant Secretary of SRCSAIC and SRCSPIC and WIC, do hereby certify that the above and foregoing is a true and correct copy of a Power of Attorney given by said SRCSAIC and SRCSPIC and WIC, which is still in full force and effect. IN WITNESS WHEREOF, I have set my hand and affixed the seals of the Companies this 10th day of SEPTEMBER, 2023.

Jeffrey Goldberg
Jeffrey Goldberg, Senior Vice President & Assistant Secretary of SRCSAIC and SRCSPIC and WIC

3C: CERTIFICATION OF BID

In responding to IFB RO2618B - FIRE STATION 4 RESTROOM REMODEL WITH MINOR FACILITY UPDATES the undersigned Bidder(s) certifies the following:

1. Bidder agrees to provide all necessary labor, materials, equipment, and services to OCFA per the specifications contained herein and that all furnished labor is able to work in harmony with all other elements of labor employed or to be employed on the work.
2. Bidder further agrees to the terms and conditions specified herein, the following terms and conditions that are a part of this IFB, and the resulting Construction Services Agreement. ***If there are any exceptions to or deviations from the terms of the Contract Documents (Section 4), they must be stated in an attachment included with the bid.*** Where Bidder wishes to propose alternatives to the OCFA's contractual requirements, these should be thoroughly explained. While exceptions will be considered, OCFA reserves the right to determine that an offer is non-responsive based upon any exceptions taken. OCFA's governing body reserves the right to deny any material exceptions to the contract. If no contractual exceptions are noted, Bidder will be deemed to have accepted the form of the contract requirements set forth in Section 4.
3. The Bidder hereby certifies that the individual signing the submittal is an authorized agent for the Bidder and has the OCFA to legally bind the Bidder to the Contract.
4. The undersigned has reviewed the work outlined in the documents and fully understands the scope of work required, understands the construction and project management function(s) as described, and that each contractor who is awarded a contract shall be in fact the prime contractor, not a subcontractor, to the OCFA, and agrees that its offer, if accepted by the OCFA, will be the basis for the contractor to enter into a contract with the OCFA.
5. The undersigned had notified the OCFA in writing any discrepancies or omission or of any doubt, questions, or ambiguities about the meaning of any of the IFB documents.
6. By submitting this Offer Form and signing below, the liquidated damages clause of the Agreement is hereby acknowledged.
7. It is understood that the OCFA reserves the right to reject this bid and that the bid shall remain open to acceptance and is irrevocable for a period of one hundred eighty (180) days.
8. Contractor expressly acknowledges that it is aware that if a false claim is knowingly submitted (as the terms "claim" and "knowingly" are defined in the California False Claims Act, Cal. Gov. Code, §12650 et seq.), the OCFA will be entitled to civil remedies set forth in the California False Claim Act. It may also be considered fraud and the contractor may be subject to criminal prosecution.
9. Labor Code Section 1735 requires that no discrimination be made in the employment of persons upon public works because of the race, religious creed, color, national origin, ancestry, physical handicap, medical condition, marital status or sex of such persons, except as provided in Government Code Section 12940. Bidder certifies that it does not discriminate in its employment with regard to the factors set forth in Labor Code Section 1735; that it is in compliance with all federal, state and local directives and executive orders regarding non-discrimination in employment; and that it agrees to demonstrate positively and aggressively the principle of equal employment opportunity in employment.
10. The Bidder, under penalty of perjury, certifies that, except as noted below, he/she or any other person associated therewith in the capacity of owner, partner, director, officer, manager: (1) is not currently under suspension, debarment, voluntary exclusion, or determination of ineligibility by any Federal agency; (2) has not been suspended, debarred, voluntarily excluded or determined ineligible by

any Federal agency within the past 3 years; (3) does not have a proposed debarment pending; and (4) has not been indicted, convicted, or had a civil judgment rendered against it by a court of competent jurisdiction in any matter involving fraud or official misconduct within the past 3 years.

To the Orange County Fire Authority:

Contractor hereby certifies to the OCFA that all representations, certifications, and statements made by the contractor, as set forth in this offer form, are true and correct and are made under penalty of perjury. The Undersigned hereby offers and shall furnish the services in compliance with all terms, scope of work, conditions, specifications, and amendments in the Request for Proposal which is incorporated by reference as fully set forth herein. The representations herein are made under penalty of perjury.

LEGAL NAME OF CONTRACTOR: Blackstone Builders Inc.

SIGNATURE OF CONTRACTOR: 

PRINTED NAME: Steven Winn TITLE: Secretary

CONTRACTOR ADDRESS: 3091 E. La Cadena Drive

CITY: Riverside STATE: CA ZIP CODE: 92507

IF CONTRACTOR IS A CORPORATION, AFFIX CORPORATE SEAL AND COMPLETE THE FOLLOWING:

NAME OF CORPORATION: Blackstone Builders Inc.

DATE OF INCORPORATION: 06/21/2011

PRESIDENT: Linda Meaney TREASURER: Tristan Winn

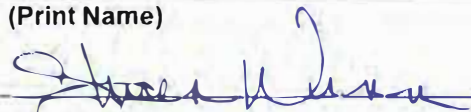
SECRETARY: Steven Winn MANAGER: Steven Winn

Blackstone Builders Inc.

SUBSCRIBED AND SWORN TO BEFORE ME BY Steven Winn
THIS 18th DAY OF September 20 23 (Print Name)

See Attached CA All Purpose Acknowledgment

(Signature of Notary Public)


(Signature)

(Attach Jurat)

TITLE Secretary

(SEAL)

(SEAL)

ALL-PURPOSE CERTIFICATE OF ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California }

County of Orange }

On September 18, 2023 before me, Beata A. Sensi, Notary Public
(Here insert name and title of the officer)

personally appeared Steven Winn
 who proved to me on the basis of satisfactory evidence to be the person~~(s)~~ whose name~~(s)~~ is/~~are~~ subscribed to the within instrument and acknowledged to me that he/~~she/they~~ executed the same in his/~~her/their~~ authorized capacity~~(ies)~~, and that by his/~~her/their~~ signature~~(s)~~ on the instrument the person~~(s)~~, or the entity upon behalf of which the person~~(s)~~ acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Beata A. Sensi
 Notary Public Signature

(Notary Public Seal)



ADDITIONAL OPTIONAL INFORMATION

DESCRIPTION OF THE ATTACHED DOCUMENT

Certification of Bid
(Title or description of attached document)

Blackstone Builders, Inc.
(Title or description of attached document continued)

Number of Pages 2 Document Date 9/18/23

CAPACITY CLAIMED BY THE SIGNER

- Individual (s)
- Corporate Officer
Secretary
(Title)
- Partner(s)
- Attorney-in-Fact
- Trustee(s)
- Other _____

INSTRUCTIONS FOR COMPLETING THIS FORM

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- Securely attach this document to the signed document with a staple

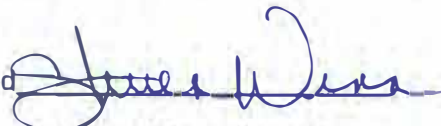
3D: NON-COLLUSION AFFIDAVIT

STATE OF CALIFORNIA)
) SS
COUNTY OF)

In conformance with Public Contract Code Section 7106, the party making the foregoing bid declares that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that such bid is genuine and not collusive or sham; that said bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and further, that the bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

Any person executing this declaration on behalf of a bidder that is a corporation, partnership, joint venture, limited liability company, limited liability partnership, or any other entity, hereby represents that he or she has full power to execute, and does execute, this declaration on behalf of the bidder.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that this declaration is executed on 9/18/2023 [date], at Orange [city], CA [state]."

Signed 
Steven Winn, Secretary
Title

Subscribed and sworn to before me
this 18th day of September, 2023.

See Attached CA All Purpose Acknowledgment

Signature of Notary Public

(SEAL)

ALL- PURPOSE CERTIFICATE OF ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California }

County of Orange }

On September 18, 2023 before me, Beata A. Sensi, Notary Public
(Here insert name and title of the officer)

personally appeared Steven Winn
 who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Beata A. Sensi
 Notary Public Signature (Notary Public Seal)



ADDITIONAL OPTIONAL INFORMATION

DESCRIPTION OF THE ATTACHED DOCUMENT
Non-Collusion Affidavit
(Title or description of attached document)
Blackstone Builders, Inc.
(Title or description of attached document continued)
 Number of Pages 1 Document Date 9/18/23

CAPACITY CLAIMED BY THE SIGNER

Individual (s)
 Corporate Officer
Secretary
(Title)

Partner(s)
 Attorney-in-Fact
 Trustee(s)
 Other _____

INSTRUCTIONS FOR COMPLETING THIS FORM

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3E: CONTRACTOR'S LICENSING CERTIFICATION

If the contractor is a sole proprietorship or another entity that does business under a fictitious name, the bid shall be in the real name of the respondent with a designation following showing "DBA (the fictitious name)," provided however, that no fictitious name shall be used unless there is a current registration with the Orange County Recorder. If the bid is submitted by a corporation, provide an additional attachment that states the names of the officers who can sign an agreement on behalf of the corporation and whether more than one officer must sign. If the bid is by a partnership or a joint venture, state the names and addresses of all general partners and joint venture parties.

The undersigned certifies that the contractor is licensed in accordance with the laws of the State of California to do the type of work required. Contractor further certifies that it is regularly engaged in the general class and type of work called for in this Request for Informal Bid. The successful contractor and subcontractors are required to hold the State of California Contractor's License(s) and DIR registration as required by SB854. Please complete and/or provide all requested information.

CONTRACTOR'S LICENSE NO: 832936 **CLASS:** B **EXPIRATION:** 06/30/2025

CA DIR REGISTRATION NUMBER: 1000021619 **EXPIRATION:** 06/30/2026

CONTRACTOR TELEPHONE: (951) 736-1600 **CONTRACTOR FAX:** (951) 736-1601

BUSINESS ADDRESS: 3091 E. La Cadena Drive, Riverside, CA, 92507

LENGTH OF TIME IN BUSINESS: 12 Years

LENGTH OF TIME AT CURRENT LOCATION: 11 Months

NUMBER OF EMPLOYEES: 14 **NUMBER OF CURRENT CLIENTS:** 5

If the contractor operates as a sole proprietorship:

NAME OF INDIVIDUAL CONTRACTOR: Not Applicable

SIGNATURE OF OWNER: _____

BUSINESS ADDRESS: _____

If the contractor operates under a partnership:

NAME OF FIRM: Not Applicable

PARTNER NAME: _____ **PARTNER TITLE:** _____

PARTNER ADDRESS: _____

SIGNATURE OF PARTNER: _____

PARTNER NAME: _____ **PARTNER TITLE:** _____

PARTNER ADDRESS: _____

SIGNATURE OF PARTNER: _____

If contractor operates under a corporation:

NAME OF CORPORATION: Blackstone Builders Inc.

CORPORATION ORGANIZED UNDER THE LAWS OF THE STATE OF CALIFORNIA:

Lisa P. Maney SIGNATURE OF CORPORATION PRESIDENT

Steven Winn SIGNATURE OF THE CORPORATION SECRETARY

DATE 09/20/2023

Management person responsible for direct contact with OCFA:

NAME: Steven Winn TITLE: Secretary

TELEPHONE: (951) 736-1600 E-MAIL: steve@blackstonebuildersinc.com

Person responsible for the day-to-day servicing of the account/project.

NAME: Tristan Winn TITLE: Office Manager

TELEPHONE: (951) 736-1600 E-MAIL: office@blackstonebuildersinc.com

Blackstone Builders Inc.

SUBSCRIBED AND SWORN TO BEFORE ME
THIS 18th DAY OF September 2023

See Attached CA All Purpose Acknowledgment

(Signature of Notary Public)

(Attach Jurat)

BY Steven Winn
(Print Name)

Steven Winn
(Signature)

TITLE Secretary

(SEAL)

(SEAL)

ALL- PURPOSE CERTIFICATE OF ACKNOWLEDGMENT

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State of California }

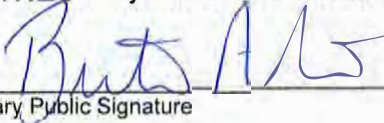
County of Orange }

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(Here insert name and title of the officer)

personally appeared Steven Winn
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I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.


 Notary Public Signature

(Notary Public Seal)



ADDITIONAL OPTIONAL INFORMATION

DESCRIPTION OF THE ATTACHED DOCUMENT

Contractors Licensing Cert.
(Title or description of attached document)

Blackstone Builders, Inc.
(Title or description of attached document continued)

Number of Pages 2 Document Date 9/18/23

CAPACITY CLAIMED BY THE SIGNER

- Individual (s)
- Corporate Officer
Secretary
(Title)
- Partner(s)
- Attorney-in-Fact
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- Securely attach this document to the signed document with a staple

3F: PROPOSED SUBCONTRACTORS

Bidder acknowledges and agrees that under Public Contract Code section 4100, et seq., Bidder must clearly set forth the name and location of each subcontractor who will perform work or labor or render service to the bidder in or about the construction of the work in an amount in excess of one-half of one percent (0.5%) of bidder's total bid and the kind of work that each will perform. This is to include any subcontractor that will specially fabricate and install a portion of work according to detailed drawings contained in the plans and specifications in the amount greater than one half of one percent (.05%) of the Contractor's total bid.

Furthermore, Bidder acknowledges and agrees that under Public Contract Code section 4100, et seq., if bidder fails to list as to any portion of work, or if bidder lists more than one subcontractor to perform the same portion of work (i.e. bidder must indicate what portion of the work each subcontractor will perform), bidder must perform that portion itself or be subjected to penalty under applicable law. If alternate bids are called for and Bidder intends to use subcontractors different from or in addition to those subcontractors listed for work under the base bid, Bidder must list subcontractors that will perform work in an amount in excess of one half of one percent (0.5%) of bidder's total bid, including alternates.

In case more than one subcontractor is named for the same kind of work, the Contractor is to state the portion of work that each subcontractor will perform. Bidders or suppliers of materials only do not need to be listed. If further space is required for the list of proposed subcontractors, additional sheets showing the required information, as indicated below, shall be attached hereto and made a part of this document.

Subcontractor Name	Bluetek Unlimited LLC dba Bluetek Demolition			
Address	4219 Alderson Ave., Unit I, Baldwin Park, CA 91706			
DIR Registration No.	1000901034	CSLB No.	1091898	Class C21/22
Phone	(626) 612-4478	Email	lalo@bluetekultd.com	
Percent of Total Contract	6.23%			
Specific Scope of Work	Demolition & Abatement			
Subcontractor Name	CJK Construction Inc. dba Ace Tek Roofing Co.			
Address	13219 Halldale Ave., Gardena, CA 90249			
DIR Registration No.	1000006658	CSLB No.	916982	Class C39
Phone	(310) 515-6611	Email	jinakim@acetekroofing.com	
Percent of Total Contract	19.63%			
Specific Scope of Work	Roofing Installation			
Subcontractor Name	G L Woodworking Inc. dba Miller's Woodworking			
Address	14341 Franklin Ave., Tustin, CA 92780			
DIR Registration No.	1000026811	CSLB No.	813913	Class C6/C5
Phone	(949) 515-2192	Email	millerswoodworking@yahoo.com	
Percent of Total Contract	2.65%			
Specific Scope of Work	Cabinets & Countertops			
Subcontractor Name	PPC Air Conditioning Inc.			
Address	5950 Lakeshore Drive, Cypress, CA 90630			
DIR Registration No.	1000003789	CSLB No.	662165	Class C4/20/16
Phone	(714) 952-2001	Email	debbie@1ppc.com	
Percent of Total Contract	4.3%			
Specific Scope of Work	Mechanical/HVAC			
Subcontractor Name	McKeown Incorporated dba McKeown Plumbing			
Address	1945 Laguna Canyon Rd., BLDG 2, Laguna Beach, CA 92651			
DIR Registration No.	1000840869	CSLB No.	1052408	Class C36/A
Phone	(949) 497-1108	Email	chic@mckplumb.com	
Percent of Total Contract	14.15%			
Specific Scope of Work	Plumbing			

3F: PROPOSED SUBCONTRACTORS

Bidder acknowledges and agrees that under Public Contract Code section 4100, et seq., Bidder must clearly set forth the name and location of each subcontractor who will perform work or labor or render service to the bidder in or about the construction of the work in an amount in excess of one-half of one percent (0.5%) of bidder's total bid and the kind of work that each will perform. This is to include any subcontractor that will specially fabricate and install a portion of work according to detailed drawings contained in the plans and specifications in the amount greater than one half of one percent (.05%) of the Contractor's total bid.

Furthermore, Bidder acknowledges and agrees that under Public Contract Code section 4100, et seq., if bidder fails to list as to any portion of work, or if bidder lists more than one subcontractor to perform the same portion of work (i.e. bidder must indicate what portion of the work each subcontractor will perform), bidder must perform that portion itself or be subjected to penalty under applicable law. If alternate bids are called for and Bidder intends to use subcontractors different from or in addition to those subcontractors listed for work under the base bid, Bidder must list subcontractors that will perform work in an amount in excess of one half of one percent (0.5%) of bidder's total bid, including alternates.

In case more than one subcontractor is named for the same kind of work, the Contractor is to state the portion of work that each subcontractor will perform. Bidders or suppliers of materials only do not need to be listed. If further space is required for the list of proposed subcontractors, additional sheets showing the required information, as indicated below, shall be attached hereto and made a part of this document.

Subcontractor Name	Allegiance Electric Inc.			
Address	39952 Quigley Rd., Murrieta, CA 92562			
DIR Registration No.	1000882457	CSLB No.	1089477	Class C10
Phone	(949) 205-0067	Email	acentanni@allegianceelec.com	
Percent of Total Contract	6.54%			
Specific Scope of Work	Electrical			
Subcontractor Name	JBI Group			
Address	455 W. La Cadena Drive, Unit 11, Riverside, CA 92501			
DIR Registration No.	1000833265	CSLB No.	889249	Class C61/D28
Phone	(833) 830-3672	Email	bholloway@thejbigroup.com	
Percent of Total Contract	2.99%			
Specific Scope of Work	Doors, Door Hardware, Roll Up Door			
Subcontractor Name	Starr Sign Design			
Address	1485 Pomona Road, Suite A, Corona, CA 92882			
DIR Registration No.	1000026863	CSLB No.	766950	Class C61/D42
Phone	(951) 340-1873	Email	tomas@starrsigndesign.com	
Percent of Total Contract	1.08%			
Specific Scope of Work	Signage			
Subcontractor Name	Professional Diversified Flooring Inc.			
Address	4 Vanderbilt, Unit A, Irvine, CA 92618			
DIR Registration No.	1000000967	CSLB No.	416261	Class C15/C54
Phone	(949) 457-8660	Email	chad.zarndt@pdfinc.net	
Percent of Total Contract	2.19%			
Specific Scope of Work	Flooring			
Subcontractor Name	Pacific Building Specialties			
Address	1760 Monrovia Ave., Unit A6, Costa Mesa, CA 92627			
DIR Registration No.	1000009133	CSLB No.	631815	Class C61/D34
Phone	(949) 645-9045	Email	pacbldgspecialties@sbcglobal.net	
Percent of Total Contract	2.16%			
Specific Scope of Work	Bathroom Accessories			

3F: PROPOSED SUBCONTRACTORS

Bidder acknowledges and agrees that under Public Contract Code section 4100, et seq., Bidder must clearly set forth the name and location of each subcontractor who will perform work or labor or render service to the bidder in or about the construction of the work in an amount in excess of one-half of one percent (0.5%) of bidder's total bid and the kind of work that each will perform. This is to include any subcontractor that will specially fabricate and install a portion of work according to detailed drawings contained in the plans and specifications in the amount greater than one half of one percent (.05%) of the Contractor's total bid.

Furthermore, Bidder acknowledges and agrees that under Public Contract Code section 4100, et seq., if bidder fails to list as to any portion of work, or if bidder lists more than one subcontractor to perform the same portion of work (i.e. bidder must indicate what portion of the work each subcontractor will perform), bidder must perform that portion itself or be subjected to penalty under applicable law. If alternate bids are called for and Bidder intends to use subcontractors different from or in addition to those subcontractors listed for work under the base bid, Bidder must list subcontractors that will perform work in an amount in excess of one half of one percent (0.5%) of bidder's total bid, including alternates.

In case more than one subcontractor is named for the same kind of work, the Contractor is to state the portion of work that each subcontractor will perform. Bidders or suppliers of materials only do not need to be listed. If further space is required for the list of proposed subcontractors, additional sheets showing the required information, as indicated below, shall be attached hereto and made a part of this document.

Subcontractor Name	HCI Systems Inc.			
Address	1354 S. Parkside Pl., Ontario, CA 91761			
DIR Registration No.	1000000046	CSLB No.	905493	Class C7/C16
Phone	(909) 628-7773	Email	klara@hcisystems.net	
Percent of Total Contract	3.73%			
Specific Scope of Work	Fire Alarm System Replacement			
Subcontractor Name				
Address				
DIR Registration No.		CSLB No.		Class
Phone		Email		
Percent of Total Contract				
Specific Scope of Work				
Subcontractor Name				
Address				
DIR Registration No.		CSLB No.		Class
Phone		Email		
Percent of Total Contract				
Specific Scope of Work				
Subcontractor Name				
Address				
DIR Registration No.		CSLB No.		Class
Phone		Email		
Percent of Total Contract				
Specific Scope of Work				

3G: DESIGNATION OF SURETIES

The following are the names, addresses and phone numbers for all brokers and sureties from whom Bidder intends to procure insurance and bonds.

Name	Swiss Re Corporate Solutions America Insurance Corporation (Bonds)
Address	26 Plaza Square, Suite 200, Orange, CA, 92866
Phone No.	(714) 516-2960
Name	Colony Insurance Corporation (General Liability / Umbrella Liability)
Address	26 Plaza Square, Suite 200, Orange, CA, 92866
Phone No.	(714) 516-2960
Name	Insurance Company of the West (Workers' Compensation & Employers Liability)
Address	26 Plaza Square, Suite 200, Orange, CA, 92866
Phone No.	(714) 516-2960
Name	West American Insurance Company (Automobile Liability Insurance)
Address	26 Plaza Square, Suite 200, Orange, CA, 92866
Phone No.	(714) 516-2960

3H: BIDDER'S CERTIFICATION OF COMPLIANCE WITH INSURANCE REQUIREMENTS FOR PUBLIC WORKS CONSTRUCTION

BIDDER agrees, acknowledges and is fully aware of the insurance requirements as specified in the INSTRUCTIONS TO BIDDERS FOR RO2618B - FIRE STATION 4 RESTROOM REMODEL WITH MINOR FACILITY UPDATES AND IN THE SPECIAL PROVISIONS FOR RO2618B - FIRE STATION 4 RESTROOM REMODEL WITH MINOR FACILITY UPDATES and accepts all conditions and requirements contained therein.

BIDDER acknowledges that ACORD forms will not be accepted when policy forms or endorsements are required.

BIDDER acknowledges that some insurance companies may be unwilling to issue all of the policy coverage and endorsements required in the conditions and requirements. It is BIDDER's responsibility to ensure that it will be able to provide evidence of all required types and amounts of insurance and all policy endorsements required hereunder.

BIDDER represents and warrants that, prior to signing below, BIDDER has confirmed with BIDDER's insurer(s) or insurance broker(s) that all required evidence of the types and amounts of insurance, and all required endorsements of insurance coverage, will be timely provided to OCFA in accordance with the conditions and requirements. Failure to provide all required evidence of insurance and endorsements when required will constitute a material breach of the agreement.

Steven Winn, Blackstone Builders Inc.

Bidder


By

09/20/2023

Date

3I: CERTIFICATION OF SITE EXAMINATION

By signing below, Bidder certifies each of the following:

1. Bidder is fully informed of the conditions relating to the construction of the work and the employment of labor thereon
2. The specifications for the work show conditions as they are believed to exist. The conditions shown do not constitute a representation or warranty express or implied by the OCFA, its officers or agents that such conditions actually exist.
3. Bidder has thoroughly examined the site for the work described herein and attended the mandatory pre- bid inspection of the building(s) and site(s), conducted by the OCFA. Failure to attend the mandatory pre-bid inspection shall be cause for rejection of the bid.
4. Bidder has observed the designated Contractor work areas, material equipment storage areas, access routes, as well as the ability to protect existing surface and subsurface improvements. No claim for allowance of time or money will be allowed for such matters.
5. Bidder is competent, knowledgeable, and has special skills with respect to the nature, extent, and inherent conditions of the work to be performed.
6. Bidder acknowledges that there are certain peculiar and inherent conditions existent in the construction of the work that may create, during the work, unusual or peculiar unsafe conditions hazardous to persons and property and expressly acknowledges that it is aware of such peculiar risks and that it has the skill and experience to foresee and to adopt protective measures to adequately and safely perform the work with respect to such hazards.

To the Orange County Fire Authority:

I certify that I have examined the site and the bid is complete and there will be no requests for additional payment for failure to examine the site thoroughly.

Date of Site Examination: 08/30/2023 @ 10:00AM

Company Name: Blackstone Builders Inc.

Signature: 

Printed Name / Title of Company Representative: Steven Winn, Secretary

Date: 09/20/2023

3J: BID SHEETS

Cost Analysis: The bid information is relevant to a determination of whether the pricing offered is fair and reasonable in light of the Scope of Services to be provided. **Failure to submit the information in the format requested may result in the bid being deemed non-responsive.**

Instructions: - Input your information in the blank cells as follows:

- Insert a description for each Line
- Insert the lump sum subtotal for each category
- Add all categories to arrive at the Project Grand Total

CATEGORY I: Labor		
Line	Description	
1	Labor	
SUBTOTAL LABOR:		\$649,692
CATEGORY II: Permanent & Non-Permanent Materials/Supplies		
Line	Description	
2	Material	
SUBTOTAL MATERIALS:		\$433,128.00
CATEGORY III: EQUIPMENT		
Line	Description	
3	Equipment/Rentals	
SUBTOTAL EQUIPMENT:		\$20,000.00
CATEGORY IV: OVERHEAD & INDIRECT COSTS		
Line	Description	
4	Overhead	
SUBTOTAL OVERHEAD:		\$17,000.00
PROJECT SUBTOTAL		\$1,119,820.00
CATEGORY V: PROFIT		
Line	Description	% Profit
5	Provide the percentage of the project subtotal (above) that will be assessed as profit:	15%
SUBTOTAL PROFIT (IN DOLLARS)		\$169,773.00
CATEGORY VI: PERMITS/FEES		
Line	Description	Estimated Permits/Fees
6	Provide an estimate of the permits and fees for the project. These fees will be reimbursed at actual cost or may be paid directly to the regulating agency by OCFA.	\$12,000.00
SUBTOTAL PERMITS/FEES		\$12,000.00
PROJECT GRAND TOTAL		\$1,301,593.00

3K: PROJECT APPROACH AND TIMELINE

Failure to provide the information requested below may result in the bid being deemed non-responsive:

1. Submit a Rough Construction Schedule. This will be the basis for the approved Construction Schedule.
2. Submit a Rough Schedule of Values, including mobilization and field office costs, in a format consistent with AIA Document G703 – 1992. This will be the basis for the approved Schedule of Values.
3. Submit a narrative explanation of the proposed Construction Schedule and Schedule of Values. The narrative should include project phases and major project milestones.



1. Rough Construction Schedule - Fire Station 4 Restroom Remodel



2. Rough Schedule of Values

AIA Document G702, APPLICATION AND CERTIFICATE FOR PAYMENT, containing Contractor's signed Certification is attached.
 In tabulations below, amounts are stated to the nearest dollar.
 Use column I on contracts where variable retainage for line items may apply.

APPLICATION NUMBER: 0
 APPLICATION DATE: 1/0/1900
 PERIOD TO: 1/0/1900

Project: Fire Station 4 Restroom Remodel

A ITEM NO.	B DESCRIPTION OF WORK	C SCHEDULED VALUE	D WORK COMPLETED		F MATERIALS PRESENTLY STORED (NOT IN D OR E)	G TOTAL COMPLETED AND STORED TO DATE (D + E + F)		H BALANCE TO FINISH (C - G)	I RETAINAGE
			FROM PREV. APPLICATION (D + E)	THIS PERIOD		%	(G/C)		
1	Mobilization / Set Protection	\$17,000.00	\$0.00				0%	\$17,000.00	\$0.00
2	Demolition & Abatement	\$81,044.00	\$0.00				0%	\$81,044.00	\$0.00
3	Framing & Drywall	\$41,529.00	\$0.00				0%	\$41,529.00	\$0.00
4	Hardlid Ceiling	\$36,578.00	\$0.00				0%	\$36,578.00	\$0.00
5	Concrete & Masonry	\$28,540.00	\$0.00				0%	\$28,540.00	\$0.00
6	Plaster	\$5,980.00	\$0.00				0%	\$5,980.00	\$0.00
7	Tile & Waterproofing	\$83,998.00	\$0.00				0%	\$83,998.00	\$0.00
8	Flooring	\$28,498.00	\$0.00				0%	\$28,498.00	\$0.00
9	Painting	\$14,198.00	\$0.00				0%	\$14,198.00	\$0.00
10	Shower Glass	\$12,000.00	\$0.00				0%	\$12,000.00	\$0.00
11	Doors & Door Hardware	\$38,876.00	\$0.00				0%	\$38,876.00	\$0.00
12	Cabinets & Countertops	\$34,430.00	\$0.00				0%	\$34,430.00	\$0.00
13	Bathroom Accessories	\$28,095.00	\$0.00				0%	\$28,095.00	\$0.00
14	Signage	\$14,000.00	\$0.00				0%	\$14,000.00	\$0.00
15	Roofing	\$255,500.00	\$0.00				0%	\$255,500.00	\$0.00
16	Lattice Shade Structure	\$10,300.00	\$0.00				0%	\$10,300.00	\$0.00
17	Plumbing	\$184,145.00	\$0.00				0%	\$184,145.00	\$0.00
18	Electrical	\$85,100.00	\$0.00				0%	\$85,100.00	\$0.00
19	Mechanical	\$55,945.00	\$0.00				0%	\$55,945.00	\$0.00
20	Fire Alarm System Replacement	\$48,564.00	\$0.00				0%	\$48,564.00	\$0.00
21	Rentals & Bonds	\$27,500.00	\$0.00				0%	\$27,500.00	\$0.00
22	Contractor's Markup (15%)	\$169,773.00	\$0.00				0%	\$169,773.00	\$0.00
TOTAL FIXED CONTRACT AMOUNT		\$1,301,593.00	\$0.00	\$0.00		\$0.00	0%	\$1,301,593.00	\$0.00



3k: Project Approach & Timeline

3. Submit a narrative explanation of the proposed Construction Schedule and Schedule of Value. The narrative should include project phases and major project milestones:

The Rough Construction Schedule is based on starting the project on October 16, 2023, and ending on February 12, 2024. This is a total of 120 calendar day completion, per the bid documents. This is subject to change based on when the Notice of Award and Notice to Proceed take place. There is pre-construction phase allotted prior to beginning of construction to allow for requests of Payment & Performance Bonds and to begin the submittal process. During the submittal process, all submittals will be compiled and sent via Google Drive link, along with a Submittal Log to track progress. There is a 5-day period allotted for this, but this is subject to change based on how long it takes to get submittals returned and approved. Once submittals are approved the construction phase begins with demolition and abatement. The schedule flows based on how we expect the work to take place and the duration is placed on the right of each item for progress to be tracked. With roofing being a major portion of the contract cost, we plan to begin the ordering of material as soon as possible and commence construction soon after. Milestones will be based upon a preconstruction meeting and will be followed to ensure client satisfaction. The Schedule of Values is a breakdown on how we anticipate to bill and shows the cost of the project. There will be monthly billings that will be done on a percentage complete basis. This allows for full transparency of the cost of the project and to keep track of project completion. Working alongside the OCFA team, we expect to meet all client demands and build the project not only per plans, but to the client's satisfaction and will allow for the successful completion of the project.

3L: LIST OF PROJECT REFERENCES

The Bidder must demonstrate knowledge of public construction techniques and must possess a working ability to perform a similar scope of construction work for other public agencies. The information provided below may be used to determine whether the bid is submitted by a "responsible bidder" for purposes of the Public Contract Code, as stated in this IFB document. The OCFA expressly reserves the right to reject the bid of any bidder who has failed to complete three (3) similar projects of substantially the same type of work in a timely or satisfactory manner. **Failure to provide the requested information may cause your bid to be rejected as non-responsive.**

1. Submit the following information for three public agencies for which the Bidder has performed similar work within the past three (3) years:

- a) Agency Name
- b) Address
- c) Contact Name and Title
- d) Telephone Number
- e) Email Address
- f) Project Name
- g) Project Value
- h) Description of Scope of Work

2. References will be asked the following information:

- a) Did the Contractor perform the work as agreed?
- b) Did the Contractor perform the work within the allocated time frame?
- c) Were you satisfied with the Contractor's performance?
- d) Would you recommend the Contractor for a future contract?
- e) Did you have easy accessibility to the Contractor?



3L: List of Project References

Reference 1:

- a) Agency Name: The Regents of the University of California
- b) Address: 1063 W. Peltason Drive, Irvine, CA 92697
- c) Contact Name & Title: Craig Denney, Senior Project Manager
- d) Telephone Number: (949) 824-5853
- e) Email Address: cdenney@uci.edu
- f) Project Name: UCI Campus Village Tenant Improvements
- g) Project Value: \$2,235,604.00
- h) Description of Work: The work consisted of all architectural, structural, and MEP scopes & had new bathroom & kitchen countertops, sinks, faucets, mirrors, LVT, base, bathroom accessories, new lighting, & all associated work. All project deadlines were met, all while the COVID-19 pandemic began to spread throughout the state.

Reference 2:

- a) Agency Name: Riverside County Sheriff's Department
- b) Address: Multiple Locations (Blythe, Murrieta, Banning, & Riverside)
- c) Contact Name & Title: Frank Gonzales, Facilities Project Manager
- d) Telephone Number: (951) 955-4169
- e) Email Address: fjgonzales@riversidesheriff.org
- f) Project Name: RSO Project #3 - Plumbing - Removal/Replacement of Inmate Showers/Restrooms
- g) Project Value: \$2,228,899.41
- h) Description of Work: The work included projects at Blythe, Banning, Murrieta, & Riverside. Our portion included 7 projects within this singular contract. The work consisted of demolition of existing sites to update the current conditions. Work in the inmate areas consisted of saw cutting, raising existing drains, & providing tamper proof fixtures. Work in the public areas & sheriff's facilities included demo of existing conditions, new T-Bar, bathroom accessories, partitions, paint, doors & frames, & new electrical. All locations were completed while occupied & all project deadlines were met.



Reference 3:

- a) Agency Name: South Orange County Community College District
- b) Address: 5500 Irvine Center Drive, Irvine, CA 92618
- c) Contact Name & Title: Anna Petrossian, Assistant Director
- d) Telephone Number: (949) 451-5708
- e) Email Address: apetrossian@ivc.edu
- f) Project Name: Irvine Valley College Building B200 Physical Sciences Project
- g) Project Value: \$1,716,156.00
- h) Description of Work: Full remodel of a standard classroom into a fully equipped chemistry classroom with a balance room. The work included new finishes, casework, and all MEP scopes. The work was done while the building was occupied and Blackstone was able to fully accommodate the students & staff to ensure smooth transitions into the newly remodeled space, all while keeping the project schedule on track.

3M: QUALIFICATIONS QUESTIONNAIRE

The information and documents provided below may be used to determine the responsibility of Bidder's submittal, as stated in Section 33 of this IFB document. **Failure to provide the requested information may cause your bid to be rejected as non-responsive.**

1. Provide the names, titles, addresses, and phone numbers of all individuals, firm members, partners, joint ventures, and/or corporate officers having a principal interest in this proposal:
2. Provide the dates of any voluntary or involuntary bankruptcy judgments against any principal having an interest in this proposal.
3. Provide all current and prior DBA's, aliases, and fictitious business names for any principal having an interest in this proposal.
4. For each violation of labor law determined by any Federal, State or local agency to have been committed by the Bidder or any principal having an interest in this proposal, identify any measures that have been imposed by, or agreed upon with, the Federal, State or local agency as punishment for past violations or to prevent future violations.
5. State the title and date, and attach a copy of, each written threat, bid depository, claim, lawsuit, discipline or other written action by the Contractor State License Board against the Bidder or any principal having an interest in this proposal.
6. Identify the following information about each claim asserted against the Bidder or any principal having an interest in this proposal relating to industrial safety within the past eight (8) years: name of the agency/entity asserting the claim; the date of the claim; the date of the alleged violation giving rise to the claim; the claim number, if any. Attach a copy of the claim.
7. Has the Bidder or any principal having an interest in this proposal been disqualified from bidding on, or from finishing, any other public works project in the past 8 years? If so, for each such disqualification, identify: who was disqualified; which public agency disqualified; the date of the disqualification; the alleged basis for the disqualification;
8. Has the Bidder or any principal having an interest in this proposal: (a) filed (voluntarily or involuntarily) for bankruptcy protection; (b) been sued or arbitrated a dispute; been involved in a contract termination involving a public works project; or (c) failed to complete work required by a construction contract? If so, provide detailed information.
9. Please submit an attachment detailing the following information about all current projects:
 - a) Project Name
 - b) Description of Bidder's Work
 - c) Completion Date
 - d) Project Cost



3M: Qualifications Questionnaire

1. Provide the names, titles, addresses, and phone numbers of all individuals, firm members, partners, joint ventures, and/or corporate officers having a principal interest in this proposal:

Name	Title	Address	Phone Number
Linda Meaney	President	3091 E. La Cadena Drive, Riverside, CA 92507	(951) 736-1600
Steven Winn	Secretary	3091 E. La Cadena Drive, Riverside, CA 92507	(951) 736-1600
Tristan Winn	Treasurer	3091 E. La Cadena Drive, Riverside, CA 92507	(951) 736-1600

2. Provide the dates of any voluntary or involuntary bankruptcy judgments against any principal having an interest in this proposal.

- Not Applicable

3. Provide all current and prior DBA's, aliases, and fictitious business names for any principal having an interest in this proposal.

- Not Applicable

4. For each violation of labor law determined by any Federal, State or local agency to have been committed by the Bidder or any principal having an interest in this proposal, identify any measures that have been imposed by, or agreed upon with, the Federal, State or local agency as punishment for past violations or to prevent future violations.

DSLE Case 40-62787-120, November 2020 (UCI Middle Earth Showers):

This was initiated by the San Diego Associated Contractors. This job was a residential project in the cottages, but the DSLE complaint alleged:

- 1) Underpayment of wages (claiming commercial rates applied)
- 2) Failure to notify all appropriate apprentice programs

We extensively argued and provided proof that residential wages were correct, but the DSLE representative kept insisting we were working the tower, not the cottages. It was settled as a business decision, not based on wrongdoing, for \$4,920.00. We now make it a point to send notices to San Diego Associated Contractors for every new job over \$25,000.

Work Done for: University of California, Irvine

Date of Completion: 09/15/2020



5. State the title and date, and attach a copy of, each written threat, bid depository, claim, lawsuit, discipline or other written action by the Contractor State License Board against the Bidder or any principal having an interest in this proposal.

- Not Applicable

6. Identify the following information about each claim asserted against the Bidder or any principal having an interest in this proposal relating to industrial safety within the past eight (8) years: name of the agency/entity asserting the claim; the date of the claim; the date of the alleged violation giving rise to the claim; the claim number, if any. Attach a copy of the claim.

- Not Applicable

7. Has the Bidder or any principal having an interest in this proposal been disqualified from bidding on, or from finishing, any other public works project in the past 8 years? If so, for each such disqualification, identify: who was disqualified; which public agency disqualified; the date of the disqualification; the alleged basis for the disqualification;

- Not Applicable

8. Has the Bidder or any principal having an interest in this proposal: (a) filed (voluntarily or involuntarily) for bankruptcy protection; (b) been sued or arbitrated a dispute; been involved in a contract termination involving a public works project; or (c) failed to complete work required by a construction contract? If so, provide detailed information.

- Not Applicable

9. Current Project information:

- Please reference next page



Current Project Information

(A) Project Name	(B) Description of Work	(C) Completion Date	(D) Project Cost
Perris Head Start Reception Security Project	Tenant improvement which includes demolition, new framing, drywall, cabinets, countertops, T-Bar, doors, windows, bathroom accessories, signage, paint, bullet resistant glazing, flooring, and all MEP scopes. Exterior work includes new concrete, asphalt, striping, fencing, gates, & electrical site work.	10/05/2023	\$1,681,641
Warm Springs Middle School & Vista Murrieta High School T.I.	New metal stud framing, drywall, tape & texture to match existing, new outlets, data boxes, light switches, doors & frames, rubber base, & paint.	12/31/2023	\$45,156
CSU San Marcos Job Order Contract	We have a 1-year Job Order Contract with Cal State San Marcos with a budget cap at \$1,000,000	06/30/2024	Up to \$1M
CSU Dominguez Hill Job Order Contract	We have a 1-year Job Order Contract with Cal State Dominguez Hills with a budget cap at \$3,000,000	08/31/2024	Up to \$3M
Orange County Sheriff-Coroner Department Job Order Contract	We have a 1-year Job Order Contract with the Orange County Sheriff-Coroner Department with a budget cap at \$5,400,000	09/30/2024	Up to \$5.4M

3N: PARTY AND PARTICIPANT DISCLOSURE FORMS

Campaign Contributions Disclosure: In conformance with the statutory requirements of the State of California Government Code Section 84308, part of the Political Reform Act and Title 2, California Code of Regulations 18438 through 18438.8, regarding campaign contributions to members of appointed Boards of Directors, Offeror is required to complete the attached Party and Participant Disclosure Forms and submit as part of the proposal, **if applicable.**

Offeror is required to submit only one copy of the completed form(s) as part of its proposal. This/these form(s) should be included in the original RFP. The Offeror and subcontractors must complete the form entitled "Party Disclosure Form". Lobbyists or agents representing the Offeror in this procurement must complete the form entitled "Participant Disclosure Form". Reporting of campaign contributions is a requirement from the proposed submittal date up and until the OCFA Board of Directors takes action.

**ORANGE COUNTY FIRE AUTHORITY
BOARD OF DIRECTORS**

- | | |
|---|--|
| Vince Rossini, Chair
City of Villa Park | John R. O'Neill, Vice Chair
City of Garden Grove |
| Ross Chun, Director
City of Aliso Viejo | Connor Traut, Director
City of Buena Park |
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County of Orange |
| Katrina Foley, Director
County of Orange | |

PARTY DISCLOSURE

The attached *Party Disclosure Form* must be completed and submitted by the Offeror and subcontractors with the proposal by all firms subject to the campaign contribution disclosure requirements stated in Section VI this solicitation. It is anticipated that a recommendation for award of this contract will be presented to the Board of Directors of OCFA for approval. (Please see next page for definitions of these terms.)

IMPORTANT NOTICE

Basic Provisions of Government Code Section 84308

- A. If you are an applicant for, or the subject of, any contract award, you are prohibited from making a campaign contribution of more than \$250 to any board member or his or her alternate. This prohibition begins on the date the solicitation is initiated, and the prohibition ends three months after a final decision is rendered by the Board of Directors. In addition, no board member or alternate may solicit or accept a campaign contribution of more than \$250 from you during this period.
- B. These prohibitions also apply to your agents, and, if you are a closely held corporation, to your majority shareholder as well. These prohibitions also apply to your subcontractor(s), joint venturer(s), and partner(s) in this proceeding. Also included are parent companies and subsidiary companies directed and controlled by you, and political action committees directed and controlled by you.
- C. You must file the attached disclosure form and disclose whether you or your agent(s) have in the aggregate contributed more than \$250 to any board member or his or her alternate during the 12-month period preceding the contract award.
- D. If you or your agent have in the aggregate contributed more than \$250 to any individual board member or his/or her alternate during the 12 months preceding the decision on the contract award or proceeding, that board member or alternate must disqualify himself or herself from the decision. However, disqualification is not required if the board member or alternate returns the campaign contribution within 30 days from the time the director knows, or should have known, about both the contribution and the fact that you are a party in the proceeding. The Party Disclosure Form should be completed and filed with your proposal, or with the first written document you file or submit after the proceeding commences.
 1. A proceeding involving "a license, permit, or other entitlement for use" includes all business, professional, trade and land use licenses and permits, and all other entitlements¹ for use, including all entitlements for land use, all contracts² (other than competitively bid, labor or personal employment contracts), and all franchises.
 2. Your "agent" is someone who represents you in connection with a proceeding involving a license, permit or other entitlement for use. If an individual acting as an agent is also acting in his or her capacity as an employee or member of a law, architectural, engineering, consulting firm, or similar business entity, both the business entity and the individual are "agents."
 3. To determine whether a campaign contribution of more than \$250 has been made by you, campaign contributions made by you within the preceding 12 months must be aggregated with those made by your agent within the preceding 12 months or the period of the agency, whichever is shorter. Contributions made by your majority shareholder (if a closely held corporation), your subcontractor(s), your joint venturer(s), and your partner(s) in this proceeding must also be included as part of the aggregation. Campaign contributions made to different directors or their alternates are not aggregated.

This notice summarizes the major requirements of Government Code Section 84308 of the Political Reform Act and 2 Cal. Adm. Code Sections 18438-18438.8 as it relates to contract awards.

¹ Entitlement for the purposes of this form refers to contract award. ² All Contracts for the purposes of this form refer to the contract award of this specific solicitation.

PARTY DISCLOSURE FORM

Party's Name: NOT APPLICABLE

Party's Address: _____

Party's Telephone: _____

Solicitation Title and Number: _____

Based on the party disclosure information provided, are you or your firm subject to party disclosures?
No If no, check the box and sign below. Yes If yes, check the box, sign below and complete the form.

Date: _____
Signature of Party and/or Agent

To be completed only if campaign contributions have been made in the preceding twelve (12) months. Attach additional copies if needed.

Board Member(s) to whom you and/or your agent made campaign contributions and dates of contribution(s) in the preceding 12 months:

Name of Member: _____

Name of Contributor (if other than Party): _____

Date(s): _____

Amount(s): _____

Name of Member: _____

Name of Contributor (if other than Party): _____

Date(s): _____

Amount(s): _____

PARTICIPANT (AGENT) DISCLOSURE

The Participant Disclosure Form must be completed by lobbyists or agents representing the Offeror in this procurement. It is anticipated that a recommendation for award of this contract will be presented to the Board of Directors of OCFA for approval.

IMPORTANT NOTICE

Basic Provisions of Government Code Section 84308

- A. If you are a participant in a proceeding involving any contract award, you are prohibited from making a campaign contribution of more than \$250 to any Board member. This prohibition begins on the date you begin to actively support or oppose an application for contract award pending before OCFA or any of its affiliated agencies, and continues until three months after a final decision is rendered on the application or proceeding by the Board of Directors. No Board member may solicit or accept a campaign contribution of more than \$250 from you and/or your agency during this period if the Board member knows or has reason to know that you are a participant.
- B. The attached disclosure form must be filed if you or your agent has contributed more than \$250 to any Board member for OCFA or any of its affiliated agencies during the 12-month period preceding the beginning of your active support or opposition (The disclosure form will assist the Board members in complying with the law).
- C. If you or your agent have made a contribution of more than \$250 to any Board member during the 12 months preceding the decision in the proceeding, that Board member must disqualify himself or herself from the decision. However, disqualification is not required if the Board member returns the campaign contribution within 30 days from the time the Board member knows, or should have known, about both the contribution and the fact that you are a participant in the proceeding

The Participant Disclosure Form should be completed and filed with the proposal submitted by a party, or should be completed and filed the first time that you lobby in person, testify in person before, or otherwise directly act to influence the vote of the Board members of OCFA or any of its affiliated agencies.

1. An individual or entity is a "participant" in a proceeding involving an application for a license, permit or other entitlement for use if:
 - a. The individual or entity is not an actual party to the proceeding, but does have a significant financial interest in the OCFA's or one of its affiliated agencies' decisions in the proceeding; **AND**
 - b. The individual or entity, directly or through an agent, does any of the following:
 - i. Communicates directly, either in person or in writing, with a Board member of OCFA or any of its affiliated agencies for the purpose of influencing the Board member's vote on the proposal;
 - ii. Communicates with an employee of OCFA or any of its affiliated agencies for the purpose of influencing a Board member's vote on the proposal; or
 - iii. Testifies or makes an oral statement before the Board of Directors of OCFA or any of its affiliated agencies.
2. A proceeding involving "a license, permit, or other entitlement for use" includes all business, professional, trade and land use licenses and permits, and all other entitlements for use, including all entitlements for land use; all contracts (other than competitively bid, labor, or personal employment contracts) and all franchises.
3. Your "agent" is someone who represents you in connection with a proceeding for this proposed involving a contract award. If an agent acting as an employee or member of a law, architectural, engineering, or consulting firm, or a similar business entity or corporation, both the business entity or corporation and the individual are agents.
4. To determine whether a campaign contribution of more than \$250 has been made by a participant or his or her agent, contributions made by the participant within the preceding 12 months shall be aggregated with those made by the agent within the preceding 12 months or the period of the agency, whichever is shorter. Campaign contributions made to different Board members are not aggregated.

This notice summarizes the major requirements of Government Code Section 84308 and 2 Cal. Adm. Code Sections 18438-18438.8

PARTICIPANT (AGENT) DISCLOSURE FORM

Prime's Firm Name: NOT APPLICABLE

Party's Name: _____

Party's Address: _____

Party's Telephone: _____

Solicitation Title and Number:

Based on the participant disclosure information provided, are you or your firm subject to participant disclosures?

No If no, check the box and sign below. Yes If yes, check the box, sign below and complete the form.

Date: _____

Signature of Party and/or Agent

To be completed only if campaign contributions have been made in the preceding twelve (12) months. Attach additional copies if needed.

Board Member(s) to whom you and/or your agent made campaign contributions and dates of contribution(s) in the preceding 12 months:

Name of Board

Member: _____

Name of Contributor (if other than Party): _____

Date(s): _____

Amount(s): _____

Name of Board

Member: _____

Name of Contributor (if other than Party): _____

Date(s): _____

Amount(s): _____

4A: TRANSMITTAL PAGE TWO – BID AWARD DOCUMENTS

TO: Orange County Fire Authority

FROM: Blackstone Builders Inc.
(Legal Name of Contractor)

PROJECT: FIRE STATION 4 RESTROOM REMODEL WITH MINOR FACILITY UPDATES

AWARDED CONTRACTOR'S CHECKLIST:

The awarded Contractor is required to provide the following documents:

- Transmittal Page (Exhibit 4A)
- Award Certifications (Exhibit 4D)
- Signed Agreement (Exhibit 4F)
- Performance Bond (Exhibit 4B)
- W9 (Exhibit 4E)
- Payment Bond (Exhibit 4C)
- Insurance Certificates

TO THE OCFA:

Signature below acknowledges that, should the Contractor fail to provide the above documents in a form satisfactory to OCFA within fourteen days of the issuance of the Notice of Award, OCFA may, at its option, consider the Contractor to have abandoned the agreement, upon which the full payment of the sum stated in the Bidder's Bond shall be due immediately.

SIGNATURE OF CONTRACTOR:



PRINTED NAME:

Steven Win n

TITLE:

Secretary

4B: FAITHFUL PERFORMANCE BOND

(100% of Agreement Price)

Bidders must use this form, NOT a surety company form

KNOW ALL PERSONS BY THESE PRESENTS:

WHEREAS, the governing board ("Board") of the Orange County Fire Authority, ("OCFA") and Blackstone Builders, Inc. ("Principal") have entered into a contract for the furnishing of all materials and labor, services and transportation, necessary, convenient, and proper to perform the following project:

IFB RO2618B - FIRE STATION 4 RESTROOM REMODEL WITH MINOR FACILITY UPDATES

("Contract") which Contract dated [DATE], and all of the Bid Documents attached to or forming a part of the Contract, are hereby referred to and made a part hereof; and

WHEREAS, said Principal is required under the terms of the Contract to furnish a bond for the faithful performance of the Contract.

NOW, THEREFORE, the Principal and Swiss Re Corporate Solutions America Insurance Corporation ("Surety") are held and firmly bound unto the Board of the OCFA in the penal sum of ONE MILLION, THREE HUNDRED ONE THOUSAND, FIVE HUNDRED NINETY-THREE DOLLARS (\$1,301,593), lawful money of the United States, for the payment of which sum well and truly to be made we bind ourselves, our heirs, executors, administrators, successors, and assigns jointly and severally, firmly by these presents, to:

- Perform all the work required to complete the Project; and
- Pay to the OCFA all damages the OCFA incurs as a result of the Principal's failure to perform all the work required to complete the Project.

The condition of the obligation is such that, if the above bounden Principal, his or its heirs, executors, administrators, successors, or assigns, shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions, and agreements in the Contract and any alteration thereof made as therein provided, on his or its part to be kept and performed at the time and in the intent and meaning, including all contractual guarantees and warranties of materials and workmanship, and shall indemnify and save harmless the OCFA, its trustees, officers and agents, as therein stipulated, then this obligation shall become null and void, otherwise it shall be and remain in full force and virtue.

As a condition precedent to the satisfactory completion of the Contract, the above obligation shall hold good for a period equal to the warranty and/or guarantee period of the Contract, during which time Surety's obligation shall continue if Contractor shall fail to make full, complete, and satisfactory repair and replacements and totally protect the OCFA from loss or damage resulting from or caused by defective materials or faulty workmanship. The obligations of Surety hereunder shall continue so long as any obligation of Contractor remains. Nothing herein shall limit the OCFA's rights or the Contractor or Surety's obligations under the Contract, law or equity, including, but not limited to, California Code of Civil Procedure section 337.15.

The Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of the contract or to the work to be performed thereunder or the specifications accompanying the same shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration, or addition to the terms of the Contract or to the work or to the specifications.

[Signature Page Follows]

IN WITNESS WHEREOF, two (2) identical counterparts of this instrument, each of which shall for all purposes be deemed an original thereof, have been duly executed by the Principal and Surety above named, on the 26th day of October, 2023, in accordance with Article 5, commencing at section 1860, chapter 1, part 7, division 2 of the Labor Code, this certificate must be signed and filed with the awarding body prior to performing any work under this Contract:

CONTRACTOR:
(Affix Corporate Seal)

Blackstone Builders, Inc.

Principal

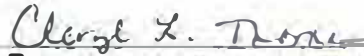

By Steven Winn

Secretary

Print Name and Title of Signatory

SURETY:
(Affix Corporate Seal)

Swiss Re Corporate Solutions America Insurance Corporation
Surety


By Cheryl L. Thomas, Attorney-in-Fact

Rohm Insurance Agency

Name of California Agent of Surety

26 Plaza Square, Suite 200
Orange, CA 92866

Address of California Agent of Surety

(714) 516-2960

Telephone Number of California Agent of Surety

Attach Notary acknowledgments for all signatures. Attach Power of Attorney Attach Power of Attorney if executed by Attorney-in-Fact. The California Department of Insurance must authorize the Surety to be an admitted Surety Insurer.

ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of Orange)

On October 26, 2023 before me, Susan E. Morales, Notary Public
(insert name and title of the officer)

personally appeared Steven Winn
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature Susan E. Morales (Seal)



ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of Orange)

On October 26, 2023 before me, Susan E. Morales, Notary Public
(insert name and title of the officer)

personally appeared Cheryl L. Thomas
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature Susan E. Morales (Seal)



Swiss Re Corporate Solutions America Insurance Corporation

Electronic Corporate Seal



Please read through the below Usage Guidelines for our Electronic Corporate Seal:

- 1) *This Electronic Corporate Seal has been provided for convenience. Swiss Re Corso cannot provide assurance that specific obligees will, or will not, accept an Electronic Corporate Seal. The preferred method remains a physically affixed seal. The Electronic Corporate Seal is used at the discretion of your Agency or Brokerage, and Swiss Re Corso disclaims any liability if the use of the Electronic Corporate Seal results in any instrument being rejected or challenged;*
- 2) *The Electronic Corporate Seal can only be used for electronically affixing a seal to a surety bond, or related instrument, that has been authorized by Swiss Re Corso and is being executed on behalf of Swiss Re Corso by your Agency or Brokerage pursuant to a valid Power of Attorney;*
- 3) *Your Agency or Brokerage may not transfer an Electronic Corporate Seal to any other entity or person without the written consent of Swiss Re Corso;*
- 4) *Swiss Re Corso may revoke permission to use the Electronic Corporate Seal at any given time; and*
- 5) *Any use of the Electronic Corporate Seal outside of the above described guidelines is not authorized*

SWISS RE CORPORATE SOLUTIONS

SWISS RE CORPORATE SOLUTIONS AMERICA INSURANCE CORPORATION ("SRCSAIC")
SWISS RE CORPORATE SOLUTIONS PREMIER INSURANCE CORPORATION ("SRCSPIC")
WESTPORT INSURANCE CORPORATION ("WIC")

GENERAL POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, THAT SRCSAIC, a corporation duly organized and existing under laws of the State of Missouri, and having its principal office in the City of Kansas City, Missouri, and SRCSPIC, a corporation organized and existing under the laws of the State of Missouri and having its principal office in the City of Kansas City, Missouri, and WIC, organized under the laws of the State of Missouri, and having its principal office in the City of Kansas City, Missouri, each does hereby make, constitute and appoint:

TODD M. ROHM, CATHY S. KENNEDY, BEATA A. SENSI, CHERYL L. THOMAS, and SHANE WOLF

JOINTLY OR SEVERALLY

Its true and lawful Attorney(s)-in-Fact, to make, execute, seal and deliver, for and on its behalf and as its act and deed, bonds or other writings obligatory in the nature of a bond on behalf of each of said Companies, as surety, on contracts of suretyship as are or may be required or permitted by law, regulation, contract or otherwise, provided that no bond or undertaking or contract or suretyship executed under this authority shall exceed the amount of:

FIFTY MILLION (\$50,000,000.00) DOLLARS

This Power of Attorney is granted and is signed by facsimile under and by the authority of the following Resolutions adopted by the Boards of Directors of both SRCSAIC and SRCSPIC at meetings duly called and held on the 18th of November 2021 and WIC by written consent of its Executive Committee dated July 18, 2011.

"RESOLVED, that any two of the President, any Managing Director, any Senior Vice President, any Vice President, the Secretary or any Assistant Secretary be, and each or any of them hereby is, authorized to execute a Power of Attorney qualifying the attorney named in the given Power of Attorney to execute on behalf of the Corporation bonds, undertakings and all contracts of surety, and that each or any of them hereby is authorized to attest to the execution of any such Power of Attorney and to attach therein the seal of the Corporation; and it is

FURTHER RESOLVED, that the signature of such officers and the seal of the Corporation may be affixed to any such Power of Attorney or to any certificate relating thereto by facsimile, and any such Power of Attorney or certificate bearing such facsimile signatures or facsimile seal shall be binding upon the Corporation when so affixed and in the future with regard to any bond, undertaking or contract of surety to which it is attached."



By Erik Janssens, Senior Vice President of SRCSAIC & Senior Vice President of SRCSPIC & Senior Vice President of WIC

By Gerald Jagrowski, Vice President of SRCSAIC & Vice President of SRCSPIC & Vice President of WIC



IN WITNESS WHEREOF, SRCSAIC, SRCSPIC, and WIC have caused their official seals to be hereunto affixed, and these presents to be signed by their authorized officers

this 10 day of NOVEMBER, 20 22

Swiss Re Corporate Solutions America Insurance Corporation
Swiss Re Corporate Solutions Premier Insurance Corporation
Westport Insurance Corporation

State of Illinois
County of Cook

On this 10 day of NOVEMBER, 20 22, before me, a Notary Public personally appeared Erik Janssens, Senior Vice President of SRCSAIC and Senior Vice President of SRCSPIC and Senior Vice President of WIC and Gerald Jagrowski, Vice President of SRCSAIC and Vice President of SRCSPIC and Vice President of WIC, personally known to me, who being by me duly sworn, acknowledged that they signed the above Power of Attorney as officers of and acknowledged said instrument to be the voluntary act and deed of their respective companies.



Christina Manisco

I, Jeffrey Goldberg, the duly elected Senior Vice President and Assistant Secretary of SRCSAIC and SRCSPIC and WIC, do hereby certify that the above and foregoing is a true and correct copy of a Power of Attorney given by said SRCSAIC and SRCSPIC and WIC, which is still in full force and effect. IN WITNESS WHEREOF, I have set my hand and affixed the seals of the Companies this 26th day of OCTOBER, 20 23.

Jeffrey Goldberg, Senior Vice President & Assistant Secretary of SRCSAIC and SRCSPIC and WIC

4C: PAYMENT BOND
Contractor's Labor & Material Bond
(100% of Agreement Price)

Premium included with
the Performance Bond

Bidders must use this form, NOT a surety company form

KNOW ALL PERSONS BY THESE PRESENTS:

WHEREAS, the governing board ("Board") of the Orange County Fire Authority, ("OCFA") and Blackstone Builders, Inc., ("Principal") have entered into a contract for the furnishing of all materials and labor, services and transportation, necessary, convenient, and proper to perform the following project:

IFB RO2618B - FIRE STATION 4 RESTROOM REMODEL WITH MINOR FACILITY UPDATES

("Contract") which Contract dated [DATE], and all of the Bid Documents attached to or forming a part of the Contract, are hereby referred to and made a part hereof; and

WHEREAS, pursuant to law and the Contract, the Principal is required, before entering upon the performance of the work, to file a good and sufficient bond with the body by which the Contract is awarded in an amount equal to one hundred percent (100%) of the Contract price, to secure the claims to which reference is made in sections 9000 through 9510 and 9550 through 9566 of the Civil Code, and division 2, part 7, of the Labor Code.

Swiss Re Corporate Solutions

NOW, THEREFORE, the Principal and, America Insurance Corporation ("Surety") are held and firmly bound unto all laborers, material men, and other persons referred to in said statutes in the sum of ONE MILLION, THREE HUNDRED ONE THOUSAND, FIVE HUNDRED NINETY-THREE DOLLARS (\$1,301,593), lawful money of the United States, being a sum not less than the total amount payable by the terms of Contract, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, or assigns, jointly and severally, by these presents.

The condition of this obligation is that if the Principal or any of his or its subcontractors, of the heirs, executors, administrators, successors, or assigns of any, all, or either of them shall fail to pay for any labor, materials, provisions, provender, or other supplies, used in, upon, for or about the performance of the work contracted to be done, or for any work or labor thereon of any kind, or for amounts required to be deducted, withheld, and paid over to the Employment Development Department from the wages of employees of the Principal or any of his or its subcontractors of any tier under Section 13020 of the Unemployment Insurance Code with respect to such work or labor, that the Surety will pay the same in an amount not exceeding the amount herein above set forth, and also in case suit is brought upon this bond, will pay a reasonable attorney's fee to be awarded and fixed by the Court, and to be taxed as costs and to be included in the judgment therein rendered.

It is hereby expressly stipulated and agreed that this bond shall inure to the benefit of any and all persons, companies, and corporations entitled to file claims under section 9100 of the Civil Code, so as to give a right of action to them or their assigns in any suit brought upon this bond.

Should the condition of this bond be fully performed, then this obligation shall become null and void; otherwise it shall be and remain in full force and affect.

And the Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of Contract or the specifications accompanying the same shall in any manner affect its obligations on this bond, and it does hereby waive notice of any such change, extension, alteration, or addition.

[Signature Page Follows]

IN WITNESS WHEREOF, two (2) identical counterparts of this instrument, each of which shall for all purposes be deemed an original thereof, have been duly executed by the Principal and Surety above named, on the 26th day of October, 2023.

CONTRACTOR:
(Affix Corporate Seal)

Blackstone Builders, Inc.

Principal

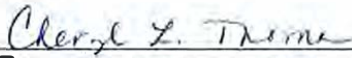

By Steven Winn

Secretary

Print Name and Title of Signatory

SURETY:
(Affix Corporate Seal)

Swiss Re Corporate Solutions America Insurance Corporation
Surety


By Cheryl L. Thomas, Attorney-in-Fact

Rohm Insurance Agency

Name of California Agent of Surety

26 Plaza Square, Suite 200
Orange, CA 92866

Address of California Agent of Surety

(714) 516-2960

Telephone Number of California Agent of Surety

Attach Notary acknowledgments for all signatures. Attach Power of Attorney Attach Power of Attorney if executed by Attorney-in-Fact. The California Department of Insurance must authorize the Surety to be an admitted Surety Insurer.

ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of Orange)

On October 26, 2023 before me, Susan E. Morales, Notary Public
(insert name and title of the officer)

personally appeared Steven Winn
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature Susan E. Morales (Seal)



ACKNOWLEDGMENT

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State of California
County of Orange)

On October 26, 2023 before me, Susan E. Morales, Notary Public
(insert name and title of the officer)

personally appeared Cheryl L. Thomas
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature Susan E. Morales (Seal)



Swiss Re Corporate Solutions America Insurance Corporation

Electronic Corporate Seal



Please read through the below Usage Guidelines for our Electronic Corporate Seal:

- 1) *This Electronic Corporate Seal has been provided for convenience. Swiss Re Corso cannot provide assurance that specific obligees will, or will not, accept an Electronic Corporate Seal. The preferred method remains a physically affixed seal. The Electronic Corporate Seal is used at the discretion of your Agency or Brokerage, and Swiss Re Corso disclaims any liability if the use of the Electronic Corporate Seal results in any instrument being rejected or challenged;*
- 2) *The Electronic Corporate Seal can only be used for electronically affixing a seal to a surety bond, or related instrument, that has been authorized by Swiss Re Corso and is being executed on behalf of Swiss Re Corso by your Agency or Brokerage pursuant to a valid Power of Attorney;*
- 3) *Your Agency or Brokerage may not transfer an Electronic Corporate Seal to any other entity or person without the written consent of Swiss Re Corso;*
- 4) *Swiss Re Corso may revoke permission to use the Electronic Corporate Seal at any given time;*
and
- 5) *Any use of the Electronic Corporate Seal outside of the above described guidelines is not authorized*

SWISS RE CORPORATE SOLUTIONS

SWISS RE CORPORATE SOLUTIONS AMERICA INSURANCE CORPORATION ("SRCSAIC")
SWISS RE CORPORATE SOLUTIONS PREMIER INSURANCE CORPORATION ("SRCSPIC")
WESTPORT INSURANCE CORPORATION ("WIC")

GENERAL POWER OF ATTORNEY

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TODD M. ROHM, CATHY S. KENNEDY, BEATA A. SENSI, CHERYL L. THOMAS, and SHANE WOLF

JOINTLY OR SEVERALLY

Its true and lawful Attorney(s)-in-Fact, to make, execute, seal and deliver, for and on its behalf and as its act and deed, bonds or other writings obligatory in the nature of a bond on behalf of each of said Companies, as surety, on contracts of suretyship as are or may be required or permitted by law, regulation, contract or otherwise, provided that no bond or undertaking or contract or suretyship executed under this authority shall exceed the amount of:

FIFTY MILLION (\$50,000,000.00) DOLLARS

This Power of Attorney is granted and is signed by facsimile under and by the authority of the following Resolutions adopted by the Boards of Directors of both SRCSAIC and SRCSPIC at meetings duly called and held on the 18th of November 2021 and WIC by written consent of its Executive Committee dated July 18, 2011.

"RESOLVED, that any two of the President, any Managing Director, any Senior Vice President, any Vice President, the Secretary or any Assistant Secretary be, and each or any of them hereby is, authorized to execute a Power of Attorney qualifying the attorney named in the given Power of Attorney to execute on behalf of the Corporation bonds, undertakings and all contracts of surety, and that each or any of them hereby is authorized to attest to the execution of any such Power of Attorney and to attach therein the seal of the Corporation; and it is

FURTHER RESOLVED, that the signature of such officers and the seal of the Corporation may be affixed to any such Power of Attorney or to any certificate relating thereto by facsimile, and any such Power of Attorney or certificate bearing such facsimile signatures or facsimile seal shall be binding upon the Corporation when so affixed and in the future with regard to any bond, undertaking or contract of surety to which it is attached."



By Erik Janssens, Senior Vice President of SRCSAIC & Senior Vice President of SRCSPIC & Senior Vice President of WIC

Handwritten signature of Gerald Jagrowski

By Gerald Jagrowski, Vice President of SRCSAIC & Vice President of SRCSPIC & Vice President of WIC



IN WITNESS WHEREOF, SRCSAIC, SRCSPIC, and WIC have caused their official seals to be hereunto affixed, and these presents to be signed by their authorized officers

this 10 day of NOVEMBER, 20 22

Swiss Re Corporate Solutions America Insurance Corporation
Swiss Re Corporate Solutions Premier Insurance Corporation
Westport Insurance Corporation

State of Illinois
County of Cook

SS

On this 10 day of NOVEMBER, 20 22, before me, a Notary Public personally appeared Erik Janssens, Senior Vice President of SRCSAIC and Senior Vice President of SRCSPIC and Senior Vice President of WIC and Gerald Jagrowski, Vice President of SRCSAIC and Vice President of SRCSPIC and Vice President of WIC, personally known to me, who being by me duly sworn, acknowledged that they signed the above Power of Attorney as officers of and acknowledged said instrument to be the voluntary act and deed of their respective companies.



Handwritten signature of Christina Manisco

I, Jeffrey Goldberg, the duly elected Senior Vice President and Assistant Secretary of SRCSAIC and SRCSPIC and WIC, do hereby certify that the above and foregoing is a true and correct copy of a Power of Attorney given by said SRCSAIC and SRCSPIC and WIC, which is still in full force and effect.

IN WITNESS WHEREOF, I have set my hand and affixed the seals of the Companies this 26th day of OCTOBER, 20 23

Jeffrey Goldberg, Senior Vice President & Assistant Secretary of SRCSAIC and SRCSPIC and WIC

4D: AWARD CERTIFICATIONS

Prevailing Wage:

I hereby certify that I will conform to the State of California Public Works Contract requirements regarding prevailing wages, benefits, on-site audits with 48-hour notice, payroll records, and apprentice and trainee employment requirements, for all Services on the above Project, including, without limitation, the State labor compliance monitoring and enforcement by the Compliance Monitoring Unit of the Department of Industrial Relations, if this Project is subject to a labor compliance.

Workers' Compensation:

In accordance with Article 5 - commencing at section 1860, chapter 1, part 7, division 2 of the Labor Code, this certificate must be signed and filed with the awarding body prior to performing any work under this Contract. CA Labor Code section 3700 in relevant part provides that every employer except the State shall secure the payment of compensation in one or more of the following ways: (1) By being insured against liability to pay compensation in one or more insurers duly authorized to write compensation insurance in this state; (2) By securing from the Director of Industrial Relations, a certificate of consent to self-insure, which may be given upon furnishing proof satisfactory to the Director of Industrial Relations of ability to self-insure and to pay any compensation that may become due to his employees. I am aware of the provisions of Section 3700 of the Labor Code which requires every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that Code, and I will comply with such provisions before commencing the performance of work of this contract.

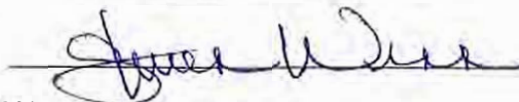
Date: 10/31/2023

Legal Name of

Contractor:

Blackstone Builders Inc.

Signature:



Printed Name:

Steven Winn

Title:

Secretary

4E: IRS FORM W9

Form W-9 (Rev. October 2018) Department of the Treasury Internal Revenue Service

Request for Taxpayer Identification Number and Certification

Give Form to the requester. Do not send to the IRS.

Go to www.irs.gov/FormW9 for instructions and the latest information.

Print or type. See Specific instructions on page 3.

Form fields: 1 Name (BLACKSTONE BUILDERS INC.), 2 Business name (SAME AS ABOVE), 3 Check appropriate box for federal tax classification (S-Corporation checked), 4 Exemptions, 5 Address (3091 E. LA CADENA DRIVE), 6 City, state, and ZIP code (RIVERSIDE, CA 92507), 7 List account number(s) here (optional), Requester's name and address (optional).

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the instructions for Part I, later.

Social security number input fields

Employer identification number input fields (61-1651570)

Part II Certification

Under penalties of perjury, I certify that:

- 1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
3. I am a U.S. citizen or other U.S. person (defined below); and
4. The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

Certification Instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions for Part II, later.

Sign Here Signature of U.S. person [Handwritten Signature]

Date 10/31/2023

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. For the latest information about developments related to Form W-9 and its instructions, such as legislation enacted after they were published, go to www.irs.gov/FormW9.

Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following.

- Form 1099-INT (interest earned or paid)

- Form 1099-DIV (dividends, including those from stocks or mutual funds)
Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
Form 1099-S (proceeds from real estate transactions)
Form 1099-K (merchant card and third party network transactions)
Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
Form 1099-C (canceled debt)
Form 1099-A (acquisition or abandonment of secured property)

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See What is backup withholding, later.

4G: GENERAL CONDITIONS**ORANGE COUNTY FIRE AUTHORITY GENERAL CONDITIONS****51 Definitions**

As used in these General Conditions and in the Project Manual generally, the following terms have the meaning indicated:

Acts of God: An earthquake in excess of a magnitude of 3.5 on the Richter Scale or a tidal wave.

Addendum: A written or graphic instrument issued by Project Manager on behalf of the OCFA prior to the execution of the Contract which sets forth additions, deletions, or other revisions to the Project Manual or clarifications thereof.

Authority: The Orange County Fire Authority, a California Joint Powers Authority.

Board of Directors: The governing body of the Orange County Fire Authority.

Change Order: A written Modification executed by both parties (except in the event of a unilateral Change Order as herein provided) and consisting of additions, deletions or other changes to the Contract. A Change Order may be accompanied by and/or may identify additional or revised Drawings, sketches or other written instructions which become and form a part of the Project Manual by virtue of the executed Change Order. Except as otherwise provided in Subparagraph 1.1.5., a Change in the Work, or a change in the Contract Time or the Contract Sum shall only be approved by written Change Order.

Construction Contract or Contract: The written "Contract Agreement" covering the performance of the Work and the furnishing of labor, materials, tools, and equipment in the construction of the Work. The term "Construction Contract" also includes the Project Manual.

Contract Directive: A written document issued by the Project Manager and consisting of additions, deletions, clarifications, interpretations, or other written instructions issued by the Project Manager with respect to the performance of the Work or the activities of the Contractor on the Job Site or the property of OCFA. A Contract Directive can be a response to a Request for Information; however, all responses to Requests for Information need not be Contract Directives. A Contract Directive may become the subject of a Change Order only if such Directive involves a substantial change in the Work, or a change in the Contract Time or the Contract Amount, approved as a Change Order by the Project Manager.

Contractor's Construction Schedule: The detailed schedules, based on a critical path method ("CPM"), prepared by the Contractor, presenting an orderly and realistic plan for completion of the work required in the Project Manual. The Contractor's Construction Schedule shall also include the completion dates of the Milestones and a final proposal narrative as described in the Project Manual.

Contractor: The person or entity awarded the Contract to perform the work.

Day: All references to days in the Project Manual refer to calendar day unless otherwise specifically indicated.

Design Professional: Officers, employees, and consultants, the architectural and engineering firm, a party to the design-build entity responsible for the overall design of the Project.

Excusable Labor Dispute: Any labor dispute directed against an entire industry, or any labor dispute that is not directed solely against the Project, the Contractor, or any subcontractor or supplier, and which prevents Contractor from obtaining labor or materials necessary for the performance of the Work and that actually delays the performance of the Work; provided, however, that suitable substitute labor or materials are not reasonably obtainable.

Excusable Transportation Delay: Any labor dispute directed at an entire industry, or any labor dispute that is not directed solely against the Project, the Contractor, or any subcontractor or supplier, or other delay not within the reasonable control of the Contractor which prevents the transportation of necessary materials to the Project and actually delays the performance of Work; provided, however, that suitable substitute transportation for such materials is not reasonably available.

Fire Chief: The Fire Chief of the OCFA or the Fire Chief's Designee.

Laws: Each and every Federal, state, and local law, ordinance, code, rule, and regulation, as well as the lawful order or decree of any public or quasi-public authority and each of their respective inspectors or officials, including but not limited to all applicable building codes, bearing on or otherwise applicable to the Project. The term "Laws" also includes any and all conditions of approval of each and every entitlement or permit issued or approved by the Local Jurisdictions.

Local Jurisdictions: Any governmental agency with land use authority over the Project or part of the Project and each regulatory agency or authority with jurisdiction over the project, and their respective inspectors and representatives.

Modification or Contract Modification: (1) a written amendment to this Contract signed by both Parties; (2) a Change Order; or (3) a Contract Directive or other written interpretation or order issued as a response to a Request for Information or otherwise issued by the Project Manager pursuant to the terms of the Project Manual. Contractor acknowledges that the execution on its behalf of any such Modification by any one person with apparent authority shall be binding against the Contractor. A Modification may be made only after execution of the Contract. No Contract Directive or response to a Request for Information shall be construed as a Change Order or other Modification unless it expressly so states.

Non-Conformance Notice: A notice issued by the Project Manager documenting that the work or some portion thereof has not been performed in accordance with the requirements of the Project Manual.

Notice to Proceed: The written notice of the OCFA to the Contractor to commence work under the Contract.

OCFA: The Orange County Fire Authority, a California Joint Powers Authority.

Plans: The drawings, supplemental drawings, or reproductions thereof, the project plans, standard plans, profiles, cross-sections, and all graphic depictions, which show the location, character, dimensions, and details of the work to be performed and contained in the Project Manual.

Project: The Project is the performance, construction, installation, and completion of the entire scope of all work as described in the Contract Documents.

Project Manager: The person or persons designated by the OCFA to serve as the Project Manager of the project.

Project Manual: Defined in Section 41 of the Contract Agreement.

Provide: To furnish, fabricate, complete, deliver, install, and erect including all labor, materials, equipment, apparatus, appurtenances, and expenses, necessary to complete in place, ready for operation or use under the terms of the Project Manual.

Regulatory Agency – A Federal, State or local governmental agency that has regulatory jurisdiction over one or more aspects of the Project. (Examples may include, but are not limited to the Regional Water Quality Control Board, the California Coastal Commission, or the South Coast Air Quality Management Board.)

Related Work: Work performed by the OCFA or by any separate Contractor retained or hired by the OCFA, related to the completion of the Project and which is not required to be performed by the Contractor pursuant to this Contract and the Project Manual.

Requests for Information: A written request from the Contractor or one of the Subcontractors to the Project Manager seeking an interpretation or a clarification of some requirement of the Project Manual. Contractor shall clearly and concisely set forth in writing the issue for which Contractor seeks clarification or interpretation and why a response is needed from the Project Manager. Contractor shall set forth Contractor's interpretation or understanding of the Project Manual's requirements along with reasons why Contractor reached such an understanding. Responses from the Project Manager will not change any requirements of the Project Manual unless so noted in the Request for Information response.

Scheduled Completion Date: The number of days specified in the Construction Schedule for completion of the Project.

Site or Sites: The land on which the Project will be constructed as specifically described in the Project Manual.

Specifications: The directives, provisions, and requirements contained in Project Manual, however such may be labeled or otherwise described.

Subcontractor: A person or organization having a direct contract with the Contractor to perform any of the Work at the Site or to supply any materials, equipment, or supplies to be incorporated in, or utilized in connection with, the Work and as used herein shall include the Subcontractor's authorized representative.

Substantial Completion of the Project: occurs when all of the following are achieved: (1) substantial completion of all Work; and (2) suitable to meet the requirements for the issuance of a certificate of occupancy and receipt of all other required approvals of construction from the Local Jurisdictions; and (3) in strict accordance with the Project Manual; and (4) such that OCFA may fully utilize the Project for the use for which it is intended. Early occupation of the Project by OCFA does not constitute Substantial Completion of the Project if one or more of the four factors above has not yet been achieved. (See Section General Conditions, Section 74.)

Supplemental Agreements: The written agreements covering alterations, amendments, or extensions to the Construction Contract and include contract change orders.

Work: All the work specified, indicated, shown, or contemplated in the Construction Contract to construct the Project, including all alterations, amendments, or extensions thereto made by contract change order or other written orders of the Project Manager, including each activity, labor, task, service, acquisition, purchase, installation, or action of any kind required to be performed under the terms of this Contract and as specified in the Project Manual.

52 The Project Manual

- 52.1 The Project Manual is defined in **Section 41** of the Contract Agreement. The Contractor has examined carefully the site of the work contemplated, the plans and specifications, and the proposal and contract forms therefor. The submission of a bid shall be conclusive evidence that the Contractor has investigated and is satisfied as to the conditions to be encountered, as to the character, quality, and scope of work to be performed, the quantities of materials to be furnished and as to the requirements of the proposal, plans, specifications and the Construction Contract. The Contractor warrants and represents that, in executing the Contract and undertaking the Work, it has not relied upon any oral inducement or representation by OCFA, Project Manager, or any of their officers or agents as to the nature of the Work, the Site, the Project conditions or otherwise.
- 52.2 All parts and provisions of the Project Manual are complementary, and what is required by any one shall be as binding as if required by all. If the Project Manual does not specifically allow the Contractor a choice as to quality or cost of items to be furnished, but could be interpreted to permit such choice, subject to confirmation or approval by Project Manager, they shall be construed to require the Contractor to provide the best quality. Words and abbreviations which have well-known technical or trade meanings are used in the Project Manual in accordance with such recognized meanings.
- 52.3 Where conflict exists within or between parts of the Project Manual, or between the Project Manual and either applicable industry standards or applicable codes, ordinances, or other legal requirements, the more stringent requirements shall apply; otherwise, the following order of precedence shall be used: the Construction Contract; the Special Conditions of the Contract for Construction; these General Conditions of the Construction Contract; the balance of the Project Manual, and the Drawings. If the Contractor is required to perform any extra or corrective Work to comply with the preceding sentence, it shall not be entitled to an increase in the Contract Sum or Contract Time, and no claim shall result from such compliance. Subject to confirmation or approval by OCFA, more detailed Drawings take precedence over less detailed scaled Drawings, figured dimensions on the Drawings take precedence over scaled dimensions, and otherwise noted matters on the drawings take highest precedence.
- 52.4 Drawings take precedence over graphic representations. Contractor shall bring or submit to the Project Manager any such conflicts as soon as Contractor or its Subcontractors discover or learn about such apparent conflicts in the form of an RFI.
- 52.5 The organization of the Specifications into divisions, sections, and articles, and the arrangement of Drawings, are not intended to influence the Contractor in its division of the Work among Subcontractors or its establishment of the extent of the Work to be performed by any trade.
- 52.6 The Contractor shall request in writing that Project Manager provide any interpretations or clarifications necessary for the proper execution, coordination or progress of the Work. Such interpretations shall be issued by Project Manager in writing for implementation by the Contractor. The Contractor shall make all such requests for interpretation or clarification in writing.

- 52.7 The Project Manual reflects conditions as they are believed to exist, but it is not intended or to be inferred that the conditions as shown thereon constitute a representation by or on behalf of Authority that such conditions actually exist. The Contractor shall inspect the Site and conduct any tests or surveys it deems necessary or desirable prior to the commencement of the Work and shall accept full responsibility for any loss sustained by it as a result of any variances between the conditions as shown on the Project Manual and the actual conditions revealed during the progress of the Work or otherwise. The Contract Sum shall in no event be increased by reason of any such variance unless otherwise specifically provided herein.
- 52.8 The Contractor shall develop and maintain current "as-built" Plans to be provided to Project Manager in accordance with the Construction Contract and Section 01770 of the Project Manual. Project Manager may inspect and copy such Plans at any time during the course of the Work.
- 52.9 The intent of the plans and specifications is to prescribe the details for the construction and completion of the work which the Contractor undertakes to perform in accordance with the terms of the Construction Contract. Where the plans or specifications describe portions of the work in general terms, but not in complete detail, it is understood that only the best general practice is to prevail and that only materials and workmanship of the first quality are to be used. Unless otherwise specified, the Contractor shall provide all labor, materials, tools, equipment, and incidentals, and do all the work involved in executing the contract in a satisfactory and workmanlike manner.

53 Contract Bonds.

Both the Faithful Performance Bond and the Material and Labor Bond shall each be for not less than one hundred percent (100%) of the total Contract amount. The Material and Labor Bond shall remain in force until thirty-five (35) days after the date of recordation of the Notice of Completion. The Faithful Performance Bond will be held for one year after the date of recordation of the Notice of Completion.

Prior to the acceptance of any bond, the OCFA shall verify that the surety is an admitted surety in the State of California. If requested by the OCFA, the Contractor shall provide other information specified in the Code of Civil Procedure Section 995.660 to enable the OCFA to verify the sufficiency of the bond.

Should any bond become insufficient, the Contractor shall correct the insufficiency within ten (10) calendar days after receiving notice from the OCFA. The Contractor shall provide the OCFA with evidence of the correction within ten (10) calendar days of said correction. Should any surety at any time be unsatisfactory to the OCFA, written notice will be given to the Contractor to that effect. No further payments shall be deemed due or will be payable under the Contract until Contractor submits an acceptable bond from a surety accepted by the OCFA. Changes to the work or extensions of time made pursuant to the Contract Agreement shall in no way release the Contractor or the surety from its obligations. Notice of such changes or extensions shall be waived by the surety.

54 OCFA AND OCFA'S REPRESENTATIVES

- 54.1 The work will be under the general direction of the Fire Chief. The Project Manager is the authorized representative of the Fire Chief and has complete charge of the work, and shall exercise full control of the work, so far as it affects the interest of the OCFA.
- 54.2 The provisions in this General Conditions or elsewhere in the Contract Documents regarding approval or direction by the Fire Chief, the OCFA, the Board of Directors, or the Project Manager, or action taken pursuant thereto, are not intended to and shall not relieve the

Contractor of responsibility for the accomplishment of the work, either as regards sufficiency or the time of performance, except as expressly otherwise provided herein.

- 54.3 The Project Manager is the OCFA's exclusive representative and agent to the Contractor with respect to this Project during construction and until the completion of the Project. The OCFA's communications with the Contractor shall be exclusively through the Project Manager.
- 54.4 Project Manager shall at all times have access to the work whenever it is in preparation or progress. The Contractor shall provide safe facilities for such access.
- 54.5 The OCFA shall not be responsible for or have control or charge of the construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the work, and will not be responsible for the Contractor's failure to carry out the work in accordance with the Contract Documents.
- 54.6 The OCFA will not be responsible for the failure of the Contractor to plan, schedule, and execute the work in accordance with the approved schedule or the failure of the Contractor to meet the Contract Documents completion dates or the failure of the Contractor to Schedule and coordinate the work of Contractor's own trades and subcontractors or to coordinate with other Separate Contractors.
- 54.7 The OCFA will not be responsible for the acts or omissions of the Contractor, or any subcontractor, or any Contractor's or subcontractor's agents or employees, or any other persons performing any of the work.
- 54.8 The Project Manager has the authority to disapprove or reject work on behalf of the OCFA when, in the Project Manager's opinion, the work does not conform to the Contract Documents. Whenever, in the Project Manager's reasonable opinion, it is considered necessary or advisable to ensure the proper implementation of the intent of the Contract Documents, the Project Manager has the authority to require special inspection or testing of any work in accordance with the provisions of the Contract Documents whether or not such work shall then be fabricated, installed, or completed.
- 54.9 The Project Manager has the authority to require special inspection or testing of the work. However, neither the Project Manager's authority nor any decision made by the Project Manager in good faith whether to exercise or not to exercise such authority shall give rise to any duty or responsibility of the OCFA to the Contractor, or any subcontractor, or any of their agents, or employees, or any other person performing any portion of the work.
- 54.10 The Project Manager has the authority and discretion, but not the obligation, to call, schedule, and conduct job meetings to be attended by the Contractor and representatives of Contractor's subcontractors, to discuss such matters as safety, procedures, progress, problems, and scheduling.
- 54.11 The Project Manager will establish procedures to be followed for processing all submittals, Change Orders, Progress payments, other project reports, documentation, and test reports.
- 54.12 The Project Manager will review all requests for changes and shall implement the processing of Change Orders including application for extensions of time.
- 54.13 The Project Manager will review and process all Progress Payment Requests by the Contractor including Final Progress Payment Requests.

- 54.14 Nothing contained in the Project Manual shall create any contractual relationship between Project Manager and the Contractor.
- 54.15 Except as otherwise provided in the Project Manual, and until the Contractor is notified in writing to the contrary, all actions to be taken by, all approvals, notices, consent, directions and instructions to be given by, all notices and other matters to be delivered to, all determinations and decisions to be made by and, in general, all other action to be taken by, or given to, OCFA shall be taken, given and made by, or delivered or given to, Project Manager in the name of and on behalf of OCFA. Only those so designated are authorized to grant on behalf of OCFA any approval, consent or waiver with respect to the Project Manual or the Work, or to otherwise act for OCFA in any capacity whatsoever.
- 54.16 The Contractor shall not be relieved of its obligations to perform the Work in accordance with the Project Manual either by the activities or duties of the Project Manager in its administration of the Contract, including, without limitation, by any inspections or tests required, or by approvals or other similar action with regard to shop drawings or submittals (of any type), or by the activities of persons other than the Contractor with respect to the Project. Further, notwithstanding the fact that a dispute, controversy or other question may have arisen between the parties hereto relating to the execution or progress of the Work, the interpretation of the Project Manual, the payment of any monies, the delivery of any materials or any other matter whatsoever, the Contractor shall not be relieved of its obligations to pursue the Work diligently under the Project Manual pending the determination of such dispute, controversy, or other question.
- 54.17 OCFA reserves the right, but assumes no duty, to establish and enforce standards, and to change the same from time to time, for the safety and protection of persons and property, with which the Contractor shall comply, and to review the efficiency of all protective measures taken by the Contractor. The exercise of or failure to exercise any or all of these acts by OCFA shall not relieve the Contractor of its duties and responsibilities under the Project Manual, and OCFA shall not thereby assume, nor be deemed to have assumed, such duties or responsibilities of the Contractor.

55 **CONTRACTOR**

- 55.1 **Composition:** If the Contractor hereunder is comprised of more than one legal entity, each such entity shall be jointly and severally liable hereunder.
- 55.2 **Examination of Plans, Specifications, and Site of Project:** In addition to the representations and warranties contained in the Contract, the Contractor acknowledges that prior to execution of the Contract it has thoroughly reviewed and inspected the Project Manual, and satisfied itself regarding any error, inconsistency, discrepancy, ambiguity, omission, insufficiency of detail or explanation. OCFA shall not be responsible for any costs, nor liable to the Contractor for any damage, resulting from any such matter that the Contractor reasonably should have discovered. The Contractor shall perform no portion of the Work at any time which is not as provided or specified in the Project Manual or, where required, shop drawings, product data, or samples, for such portions bearing the Design Professional's appropriate action stamp. Work performed in violation of this provision shall be at the Contractor's risk
- 55.3 **Contractor Certification:** Contractor certifies and agrees that all the terms, conditions, and obligations of the Project Manual, the location and condition of the Site, and the conditions under which the work is to be performed have been thoroughly reviewed and investigated and Contractor enters into this Contract based upon Contractor's review and investigation of all such matters. Contractor certifies and agrees that Contractor is in no way relying upon

- any opinions or representations of OCFA or the OCFA's officers, employees, agents, and consultants, including but not limited to, the Project Manager and the Design Professional.
- 55.4 Preparation of Documents: The Contractor shall carefully review and where appropriate or as may be required in the Scope of Work or at the direction of the Project Manager prepare drawings, specifications, and other instructions and shall at once report to Project Manager any error, inconsistency, or omission which Contractor may discover. Except as otherwise specifically provided hereinafter under warranties, the Contractor shall not be an agent for the OCFA.
- 55.5 Superintendence: The Contractor shall maintain on the site, during all construction activity, a competent superintendent and any necessary assistants, all satisfactory to the Project Manager. The superintendent shall not be changed except with the consent of the Project Manager, unless the superintendent proves to be unsatisfactory to the Contractor and ceases to be in his employ, in which case he/she shall be replaced immediately and in no case more than 24 hours with a superintendent acceptable to the Project Manager. The superintendent shall represent the Contractor and all directions given to the superintendent shall be as binding as if given to the Contractor. The Contractor shall provide Project Manager with complete work history profiles of management staff associated with this Project for Project Manager's review.
- 55.6 Licenses and Certificates: The Contractor represents and warrants that it has all necessary licenses and permits required by the laws of the United States, State of California, County of Orange, and any local jurisdiction, and all other appropriate governmental agencies, and agrees to maintain these licenses and permits in effect for the duration of this Contract. Further, Contractor warrants that its employees, agents, and contractors and subcontractors shall conduct themselves in compliance with all applicable laws and licensure requirements now in effect or as subsequently enacted or modified, as promulgated by any local, state, or federal governmental entities, including, without limitation, compliance with laws applicable to non-discrimination, harassment, and ethical behavior. Contractor shall notify the Project Manager immediately and in writing of its inability to obtain or maintain, irrespective of the pendency of any appeal, any such permits, licenses, approvals, certificates, waivers, and exemptions. Such inability shall be cause for termination of this Contract.
- 55.7 Materials and Equipment: The Contractor shall cause all materials and equipment to be delivered to the Site in accordance with any schedule or schedules therefore established from time to time and approved by Project Manager and, in any event, in a manner which will assure the timely progress and completion of the Work but will not encumber the Site unreasonably. Materials delivered to the Site for incorporation in the Work shall not be removed from the Site without the consent of Project Manager. The Contractor shall give, or shall require its Subcontractors to give, full and accurate quality, performance and delivery status reports, in a form satisfactory to Project Manager, regarding any materials and equipment, or such other data with respect thereto as may be requested by Project Manager, and shall obtain for Project Manager the written assurances of any manufacturer that its material or equipment is designed, and appropriate, for the use intended. The Contractor warrants to OCFA that all materials and equipment furnished under this Contract shall be new unless otherwise specified in the Project Manual and that all Work shall be of good quality, free from faults and defects and in conformance with the Project Manual. All Work not so conforming to these standards may be considered defective. All warranties and guarantees from Subcontractors (including, without limitation, manufacturers) shall be assignable to OCFA regardless of whether it is so stated therein, and the Contractor agrees to assign all such warranties and guarantees to the OCFA.

- 55.8 Completion Schedule: The Contractor shall prepare and submit, for Project Manager's approval, a Construction Schedule for the work which shall provide for expeditious and practicable execution of the work for completion within the Contract Time. This schedule shall be coordinated with the entire Project Construction Schedule to the extent required by the Contract Documents.
- 55.9 Reports by Contractor: Daily reports of the site and construction activities shall be provided to Project Manager. The reports shall follow the OCFA approved format including, but not limited to, information regarding trades at work, manpower, weather conditions, construction progress, and solutions to problems.
- 55.10 Contractor Responsibility: The Contractor shall supervise and direct the Work, using its best skill and attention. The Contractor shall be solely responsible for all construction means, methods, techniques, sequences, coordination, scheduling and procedures, for all cleanup and for all safety and weather precautions and programs, in connection with the Work. Contractor shall be solely responsible for the work and the Project as described in the Contract Documents. Contractor shall have complete control over the construction methods, techniques, and procedures, except as may be specifically provided in the Contract Documents. Contractor shall, at its sole cost and expense, perform all labor and services and furnish all material, tools, appliances, and equipment necessary and proper for performing and completing the Work of the Project in strict compliance with the terms and conditions of the Project Manual. Contractor shall provide all labor, materials, and equipment in conformity with the Project Manual and other directions as may be provided by the Project Manager. Contractor shall, at its sole cost and expense, prepare and fully comply with all provisions of the Quality Assurance/Quality Control Program as provided in the Project Manual.
- 55.11 Ongoing Oversight: Contractor shall keep itself continuously informed of the progress of the Work and the Related Work and will attend all meetings related to the Work and the Related Work as specified in the Project Manual and as identified in the Contractor's Construction Schedule. Contractor further agrees to work in a prompt, efficient, expert, and diligent manner and to furnish sufficient manpower to complete the Work in accordance with the Contractor's Construction Schedule. Contractor shall prosecute the Work diligently to completion. Contractor shall be responsible for the coordination and scheduling of all Work and the Related Work.
- 55.12 Ongoing Self-Inspection: Contractor shall, at its sole cost and expense, inspect its work to determine strict conformance to the requirements of the Project Manual. (This obligation of the Contractor is in addition to the Contractor's obligations to make repairs or to remedy deficient or unacceptable work as may be required under this Contract or any other provision of the Project Manual.) If some of the work performed on the Project does not comply with the requirements of the Project Manual, Contractor shall repair or replace such defective work at its sole cost and expense. Contractor shall gain no protection or right of reliance on the Project Manager's or Fire Chief's inspection of the work. If it is determined that the Project Manager or Fire Chief inspected work and failed to call defects or non-conforming items to the attention of Contractor, the OCFA shall not be deemed to have waived the requirements of the Project Manual or accepted the work.
- 55.13 Monitoring and Compliance: The Project Manager shall, at all times, have safe access to the Project site and its related work during its construction, and shall be furnished with every reasonable facility for ascertaining that the materials and the workmanship are in accordance with the requirements and intentions of Contract Documents. All work done and all materials furnished shall be subject to Project Manager inspection. In the event the Project Manager finds or determines that the work or material are not in accordance with

the requirements and the intentions of the Contract Documents, the Project Manager shall issue a Non-Conformance Notice. Upon receipt of a Non-Conformance Notice the Contractor shall provide a written Response to the Non-Conformance Notice within five (5) working days after receipt of the Notice. The Contractor's response shall detail either (a) why Contractor believes that the work was performed in accordance with the Project Manual or (b) what corrective action Contractor intends to take, at its sole cost and expense, to correct the non-conforming work. If Contractor disputes issuance of the Notice, the Project Manager has five- (5) working days in which to respond by either (a) withdrawing the Notice of Non-Conformance or (b) directing the Contractor to correct the work. Such determination of the Project Manager shall be final and conclusive of the matter. If directed to correct the work, Contractor shall do so within five (5) working days after receipt of such direction from the Project Manager, or such other time as may be agreed in writing from the Project Manager.

- 55.14 Inspectors: In addition to the Project Manager, inspectors of Local Jurisdictions are authorized to enforce strict compliance with the terms and conditions of the Contract and the Project Manual and to determine the acceptability of materials and workmanship. Inspectors are authorized to reject work or materials if they determine that such work or materials do not conform to the requirements of the Contract and the Project Manual. Whenever an inspector determines that some work installed by the Contractor, or any Subcontractor or supplier at any tier does not conform to the requirements of the Contract, a Notice of Non-Conformance will be issued to record this determination. In the event of a dispute between the Contractor and an inspector concerning non-conforming work, the Contractor shall pursue the issue in accordance with the requirements of Subsection M above this Section 1.03 of this contract, relating to Non-Conforming Work. Inspectors other than the Project Manager are not authorized to issue or direct changes to the requirements of the Contract. In the event that the Contractor believes some direction given by an inspector does constitute a change to the requirements of the Contract, Contractor shall within two (2) days provide written notice to the Project Manager detailing the direction given, by whom, when and under what circumstances, and why the Contractor believes that such direction constitutes a change to the requirements of the Contract. Failure to provide such written notice to the Project Manager within the specified timeframe shall constitute a waiver of claim with respect to the direction received by the Contractor.
- 55.15 Remedy and Repair of Work: The inspection of the work or materials shall not relieve the Contractor of any of the Contractor's obligations to fulfill the Construction Contract as prescribed. Work and materials not meeting the requirements shall be made good, and unsuitable work or materials may be rejected, notwithstanding that the work or materials have been previously inspected by the Project Manager or that payment therefor has been included in a progress payment. All work which has been rejected as indicated in a Non-Conformance Notice shall be remedied, or removed and replaced by the Contractor in an acceptable manner, and no compensation will be allowed to the Contractor for the removal, replacement or remedial work. Payment shall not be made on any portion of the work for which a Non-Conformance Notice has been issued and the work not corrected to the satisfaction of the Project Manager.
- 55.16 Failure to Comply: Upon failure of the Contractor to comply promptly with any order of the Project Manager made under Paragraphs L, M, N, and O above, the Project Manager, with the approval of the Fire Chief, may cause rejected or unauthorized work to be remedied, removed, or replaced, and to deduct the costs from any moneys due or to become due the Contractor.
- 55.17 Contactor Liabilities: The Contractor shall be responsible to OCFA for the acts and omissions of its employees. The Contractor shall be held responsible for all damages

resulting from its employees or its subcontractors or agents from all errors, omissions, or negligence in the performance of the work and completion of the Project.

- 55.18 **Deficiencies in Contract Documents:** Contractor covenants and agrees that Contractor, its employees, agents, subcontractors, and suppliers have an affirmative duty and obligation to promptly disclose to the Project Manager any deficiency, error, or inconsistency in the Contract Documents and any of the plans and specifications contained therein, so that Project Manager, the OCFA, and the Design Professional can affect any required or necessary modification or clarification thereof in a timely and cost effective manner. In this regard and in furtherance of the Contractor's obligations, the Contractor agrees not to take advantage of errors or omissions in the Project Manual. It is the duty of the Contractor to promptly notify the Project Manager in writing of any design, materials, or specified method that the Contractor believes may prove defective or insufficient. If the Contractor believes that a defect or insufficiency exists in design, materials, or specified methods and fails to promptly notify the Project Manager in writing of this belief, the Contractor thereby waives any right to assert that defect or insufficiency in design, materials, or specified method at any later date in any legal or equitable proceeding against the OCFA, or in any subsequent arbitration or settlement conference between the OCFA and the Contractor. The Project Manager, on receipt of any such notice, will promptly investigate the circumstances and give appropriate instructions to the Contractor. Until such instructions are given, any work done by the Contractor after the Contractor becomes aware that a defect or insufficiency exists in design, materials, or specified method which is directly or indirectly affected by such alleged defect or insufficiency in design, materials, or specified method will be at the Contractor's own risk and the Contractor shall bear all costs arising therefrom.
- 55.19 **Ongoing Duty to Disclose:** If the Contractor, either before commencing work or in the course of the work, finds any discrepancy within the Project Manual, or between the Project Manual and the physical conditions at the Site, or finds an error or omission on the Plans, Specifications, or in any survey, the Contractor shall promptly notify the Project Manager in writing of such discrepancy, error, or omission. If the Contractor observes that the Project Manual is at variance with any applicable law, regulation, order, or decree, the Contractor shall promptly notify the Project Manager in writing of such conflict. The Project Manager, on receipt of such notice, will promptly investigate the circumstances and give appropriate instructions to the Contractor. Until such instructions are given, work done by the Contractor after the discovery of such error, discrepancy, or conflict which is directly or indirectly affected by such error, discrepancy, omission, or conflict will be at the Contractor's own risk and the Contractor shall bear all costs arising therefrom.
- 55.20 **Duty to Coordinate:** The Contractor shall be responsible for coordinating any work carried on at the Site by other parties or by the OCFA, including the Related Work, simultaneously with the Work. The compensation to be paid to Contractor under this Contract includes any costs which the Contractor may incur as a result of coordinating the Work with such other work, including the Related Work. In no case shall the Contractor be entitled to extra compensation from the OCFA for damages suffered as a result of work being carried on at the Site by other parties or the OCFA simultaneously with the construction work for this Project. Nevertheless, if such work results in a delay to the Contractor's work beyond reasonable time allocations afforded to such work and Related Work identified on the Contractor's Construction Schedule as approved by the Project Manager, the Contractor may be eligible for an extension of time as specified in this Contract.
- 55.21 **Failure to Pay for Labor or Materials:** If Contractor fails to pay for labor or materials when due, OCFA may settle such claims by making demand upon the surety to this Agreement. In the event of the failure or refusal of the surety to satisfy said claims, OCFA may settle any claims directly and deduct the amount of payments from the Contract price and any amounts

due to Contractor. In the event OCFA receives a stop notice from any laborer or material supplier alleging non-payment by Contractor, OCFA shall be entitled to deduct all of its costs and expenses incurred relating thereto, including but not limited to administrative and legal fees.

- 55.22 Compliance with Laws: The Contractor shall, at its cost and expense, comply with all Laws, as any may now exist or be hereafter changed or added. It shall be the responsibility of the Contractor to familiarize itself with all such Laws, and any performance of the Work by or on behalf of the Contractor which is not in compliance with the Laws shall be at the Contractor's sole risk and expense. The Contractor shall notify OCFA prior to execution of the Contract (and, without limiting the continuous duty of the Contractor to advise the OCFA) of any instances where the Contract Documents are, or where the Contractor believes the Contract Documents are, not in compliance with the Laws.
- 55.23 Ongoing Responsibility: Any work or material not specified in the Project Manual but which by fair implication, in the judgment of the Project Manager, should be included therein, shall be accomplished, furnished, or provided by the Contractor as part of the Project Manual.
- 55.24 Taxes, Fees, and Licenses: The Contractor shall pay, or cause to be paid, all import duties and sales, consumer, use, excise, value added and ad valorem taxes required to be paid in connection with the Work or upon materials, tools or equipment brought to the Site or used in the Work. If any of the foregoing taxes are not paid in a timely manner, OCFA may withhold the amount of any such taxes from any amounts owing to the Contractor under the Project Manual, submit the amount so withheld to the appropriate taxing authority on behalf of the Contractor or its Subcontractors or Sub-subcontractors and offset said amount against the Contract Sum. The Contractor shall secure and pay for all governmental fees, permits and licenses which OCFA is not specifically required to provide and pay for under the Project Manual.
- 55.25 Tests: If the Project Manual, or any laws, ordinances, rules, regulations, or any orders or decrees of any public or quasi-public authority having jurisdiction, or common practice in the industry, require or dictate that the Contractor have any portion of the Work inspected, tested or approved, the Contractor shall advise Project Manager in a timely manner (in writing, if practicable) of its readiness and of the date arranged so that Project Manager may observe such inspection, testing or approval. The Contractor shall bear all costs of such inspections, tests and approvals except as otherwise specified. Project Manager may require any special inspection, testing or approval of the Work not included under above, or any more stringent inspection, testing or approval thereof, in which event it shall instruct the Contractor to order such inspection, testing or approval, and the Contractor shall advise Project Manager in a timely manner (in writing, if practicable). If such inspection or testing reveals any failure of the Work or the performance thereof to comply with the more stringent of: (a) the requirements of the Project Manual; (b) applicable industry standards; or (c) applicable laws, ordinances, codes, rules, regulations or orders or decrees of any public or quasi-public authority having jurisdiction, or reveals any defect in the Work, the Contractor shall bear the costs of such inspection or testing and all costs to correct the Work to the satisfaction of Project Manager, which, if incurred by OCFA, may be offset by OCFA against any amounts then or thereafter due to the Contractor. If such inspection or testing proves that the Work was performed properly, OCFA shall bear the costs of such inspection or testing. Required certificates of inspection, testing or approval shall be secured by the Contractor and promptly delivered by it to the Project Manager.
- 55.26 General: The duties and responsibilities of the Contractor as set forth in this Section 1.03 are in addition to, and not in lieu of, other duties and responsibilities of the Contractor enumerated elsewhere in the Project Manual.

56 - RESPONSIBILITIES OF THE CONTRACTOR

56.1 CONTRACTOR'S EQUIPMENT AND FACILITIES.

56.1.1 General.

56.1.1.1 Conduct of the Work. The Contractor shall behave, at all times, in a courteous, professional manner. While on site, or entering or exiting the site, there shall be no extraneous activity that might cause disruption to the Project site, surrounding areas, or residents. Failure to comply may result in the suspension of work, or removal of contractor's staff from the Project.

56.1.1.2. Noise Levels. A noise level limit of 86 dbA Max at a distance of fifty feet (50') shall apply to all construction equipment on or related to the job whether owned by the Contractor or not. The use of excessively loud warning signals shall be avoided except in those cases required for the protection of personnel. In addition to those requirements, all work shall comply with all applicable noise ordinances at all times.

56.2 COOPERATION AND COLLATERAL WORK.

The Contractor is advised as to the possibility of other construction projects within the proposed construction zone by the OCFA, other governing agencies or private enterprises. In the event of such projects, the Contractor shall coordinate with the applicable parties as to the extent of any time required to complete their work and shall schedule its work and conduct its operations so as to permit access and time as required for the concurrent work. The Contractor shall immediately notify the Engineer in the event of a delay in scheduling caused solely by this concurrent work. Payment for the above, if any, shall be deemed as included in the items of work as shown on the proposal bid sheet and no additional compensation will be allowed.

56.3 PROJECT SITE MAINTENANCE.

56.3.1. Cleanup and Dust Control.

The Contractor shall keep adjacent properties clean and free of rubbish and debris in a timely manner as necessary and/or as directed by the Engineer.

The Contractor shall implement effective handling, storage, usage, and disposal practices to control material pollution and manage waste and nonstormwater at the job site before they come in contact with storm drain systems and receiving waters.

56.3.1.1 Construction Cleaning

The Contractor shall:

- (a) Initiate and maintain a daily program to prevent accumulation of debris on-site and along access roads and haul routes. Maintain areas under Contractor's control free of waste materials, debris, weeds 6" high, and rubbish. Maintain site in a clean and orderly condition.
- (b) Provide suitable covered containers for deposit of debris and rubbish. Dispose of accumulation of extraneous materials, prohibit overloading of trucks to prevent spillages on access and haul routes and provide daily inspection of haul routes to enforce requirements.
- (c) The Contractor shall supply self-loading motorized street sweepers equipped with a

functional water spray system as part of his daily program.

- (d) Schedule at a minimum, weekly collection and disposal of debris. Provide additional collections and disposals of debris whenever the weekly schedule is inadequate to prevent accumulation.

The Contractor shall remove debris from closed or remote spaces prior to closing the space, control cleaning operations to minimize dust and other particulates and immediately remove clay and earth which adhere to the paved surface of the roadway. Remove by hand scraping, washing, sweeping, and/or other method(s) which will leave a clean non-skid surface without impairing, injuring or loosening the surface.

The Contractor is required to control dust throughout the life of the Contract. The control may be required by job conditions or Engineer. In any case, the Contractor shall use water or other effective means to control the dust. No chemical agents may be used without written authorization from the Agency. The Contractor shall be solely responsible for safety problems, accidents or any other complications or claims arising from inadequate dust control.

No separate payment will be made for any work performed or material used to control dust resulting from the Contractor's performance of the work, or by public traffic, either inside or outside the right-of-way. Full compensation for such dust control will be considered as included in the price paid for the various items of work involved.

No separate payment will be made for any work performed or material used in cleaning the Project. Full compensation for such cleaning shall be considered as included in the price paid for the various items of work involved and no additional compensation will be allowed therefore.

57 Subcontracts

57.1 Licensed Subcontractors: The Contractor shall comply with the provisions of the Subletting and Subcontracting Fair Practices Act (the "Act") (Public Contracts Code Section 4100 et seq.). The Contractor shall not terminate the employment of a Subcontractor or Sub-subcontractor engaged in the Work prior to the expiration of that subcontract without complying with the Act. The Contractor shall in all respects select the subcontractors in the manner provided under law. Each subcontractor selected for the work shall be licensed in the State of California in the subcontractor's particular field.

57.2 Transactions: Transactions with subcontractors shall be made through the Contractor. OCFA may assign to the Contractor any contracts or purchase orders entered into between OCFA and any other person or organization in any way related to the Project or the Work, at any time, in which event the Contractor shall assume full responsibility for such person or organization and its portion of the Work as if such person or organization was originally a Subcontractor. Such assignment may occur by Change Order or other Modification to the Contract, and any increase in the Contract Sum shall be governed by Section 01200 of the Project Manual.

57.3 Writing: All subcontracts and sub-subcontracts shall be in writing. Each subcontract and sub-subcontract shall contain a reference to this Contract and shall incorporate the terms and conditions hereof to the full extent applicable to the portion of the Work covered thereby. Each Subcontractor must agree, for the benefit of OCFA, to be bound by, and to require each of its Subcontractors to be bound by, such terms and conditions to the full extent applicable to its portion of the Work.

57.4 Responsibility: The Contractor shall be fully responsible to the OCFA for the acts and omissions of subcontractors and all persons directly or indirectly employed by them as Contractor is for the acts and omissions of Contractor and of persons directly or indirectly employed by

Contractor and shall pay each subcontractor promptly the amount allowed Contractor on account of such subcontractor's work to the extent of such subcontractor's interest therein.

- 57.5 Incompetent or Disorderly Conduct: If any Subcontractor or person employed by the Contractor shall appear to the Project Manager to be incompetent or to act in a disorderly or improper manner, such person shall be discharged immediately on the request of the Project Manager, and that person shall not again be employed on the work.
- 57.6 Mandatory Subcontract Terms: Each subcontract shall provide for its termination by the Contractor if, in Project Manager's opinion, the Subcontractor fails to comply with the requirements of the Project Manual insofar as the same may be applicable to its portion of the Work; and each Subcontractor shall be required to insert a similar provision in each of its sub-subcontracts. In the event of any such failure by a Subcontractor or Sub-subcontractor to comply with the requirements of the Project Manual, such Subcontractor or Sub-subcontractor, as the case may be, shall be removed immediately from the Work and shall not again be employed on the Work. The Contractor shall be responsible for all costs and expenses arising out of, and shall indemnify OCFA on account of, any such failure by a Subcontractor or Sub-subcontractor (specifically including, without limitation, a failure to pay for labor (including applicable fringe benefits) or materials).
- 57.8 Contractual Relations: Nothing contained in this Contract shall create any contractual relationship between OCFA or the Project Manager or the Design Professional on the one hand, and a subcontractor on the other.

58 Drawings And Specifications

- 58.1 Checking: The Contractor, as part of this Contract, shall agree not to take advantage of errors or omissions in the Contract Documents, including any plans and specifications thereto. It is the duty of the Contractor to promptly notify the Project Manager in writing of any design, materials, or specified method that the Contractor believes may prove defective or insufficient. If the Contractor believes that a defect or insufficiency exists in design, materials, or specified methods and fails to promptly notify the Project Manager in writing of this belief, the Contractor thereby waives any right to asset that defect or insufficiency in design, materials, or specified method at any later date in any legal or equitable proceeding against the OCFA, or in any subsequent arbitration or settlement conference between the OCFA and the Contractor. The Project Manager, on receipt of any such notice, will promptly investigate the circumstances and give appropriate instructions to the Contractor. Until such instructions are given, any work done by the Contractor after the Contractor becomes aware that a defect or insufficiency exists in design, materials, or specified method which is directly or indirectly affected by such alleged defect or insufficiency in design, materials, or specified method will be at the Contractor's own risk and the Contractor shall bear all costs arising therefrom.
- 58.2 Discrepancy in Contract Documents: If the Contractor, either before commencing work or in the course of the work, finds any discrepancy within the Contract Documents, or between the Contract Documents and the physical conditions at the Project site, or finds an error or omission on the plans, specifications, or in any survey, the Contractor shall promptly notify the Project Manager in writing of such discrepancy, error, or omission. If the Contractor observes that the Contract Documents is at variance with any applicable law, regulation, order, or decree, the Contractor shall promptly notify the Project Manager in writing of such conflict. The Project Manager, on receipt of such notice, will promptly investigate the circumstances and give appropriate instructions to the Contractor. Until such instructions are given, work done by the Contractor after the discovery of such error, discrepancy, or conflict which is directly or indirectly affected by such error, discrepancy, omission, or conflict will be at the Contractor's own risk and the Contractor shall bear all costs arising therefrom.

- 58.3 Implication: Any work or material not specified in the Contract Documents but which by fair implication, in the judgment of the Project Manager, should be included therein, shall be accomplished, furnished, or provided by the Contractor as part of the Contract Documents.
- 58.4 Precedence: Figures marked on drawings shall in general be followed in reference to scale measurements. Large scale drawings shall in general govern small scale drawings. Specifications and schedules shall govern over drawings. The Contractor shall compare all drawings and verify the figures before laying out the work and will be responsible for any errors. When measurements are affected by conditions already established, the Contractor shall take measurements notwithstanding the giving of scale or figure dimensions in the drawings. Anything mentioned in the specifications and not shown on the drawings, or shown on the drawings and not mentioned in the specifications, shall be of like effect as if shown or mentioned in both. In case of discrepancy in the Plans or Specifications, the matter shall be immediately submitted to the Project Manager, without whose decision Contractor shall not adjust said discrepancy save only at Contractor's own risk and expense. The decision of the Project Manager shall be final.
- 58.5 Shop Drawings: The Contractor shall establish, implement, and supervise the submission of shop drawings and other submittals (of any type) in accordance with the Schedule and any Milestones. The Contractor shall note any variances between any such shop drawings or other submittals and the Project Manual for the benefit of OCFA at the time of submission. No approval or other similar action regarding any such submission shall be binding in any way upon OCFA.
- 58.6 Drawings and Specifications at the Site: The Contractor shall keep available at the site for ready reference a complete set of all contract drawings, details, supplementary drawings and approved shop drawings, a complete copy of the specifications with all addenda, bulletins, amendments, and copies of Project correspondence. The Contractor shall maintain on the site a complete "as built" record set of prints. In addition, the Contractor shall keep on the site as required a copy of each manufacturer's current printed recommendations. Contractor shall also submit a copy to the Project Manager.
- 58.7 Deviations: Deviations from the drawings and the dimensions therein given, whether or not error is believed to exist, shall be made only after written authority is obtained from the Project Manager.

59 Divisions Of The Specifications

- 59.1 For convenience, the work as described in the Contract Documents are arranged in several divisions and sections, but such separations shall not be considered as the limits of the work required for any subcontract or trade: the terms and conditions of such limitations are wholly between the Contractor and his subcontractors, and the OCFA will not be responsible for any division of work by subcontractors. The Contractor will be solely responsible for all subcontract arrangements of work regardless of the location of provisions in the specifications.
- 59.2 Schedules of work included in the sections, where listed, are given for convenience only, and shall not be considered as a comprehensive list of items or work necessary to complete the work of any section.
- 59.3 Where devices or items or parts thereof are referred to in the singular, it is intended that such reference shall apply to as many soon devices, items, or parts as are required to properly complete the work.

59.4 Each section of the specifications is covered by applicable requirements of the Contract Documents and other related sections as if therein written.

60 **Site Conditions**

60.1 Existing Site Conditions: Information respecting the site of the work given in drawings or specifications has been obtained by OCFA's representatives and is believed to be reasonably correct, but the OCFA does not warrant either the completeness or accuracy of such information, and it is the responsibility of the Contractor to verify all such information.

60.2 Changed Conditions: The Contractor shall promptly, and before such conditions are disturbed, notify the Project Manager in writing of:

60.2.1 Subsurface or latent physical conditions at the site differing materially from those indicated in the Contract Documents; or

60.2.2 Unknown physical conditions at the site, of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents. The Project Manager shall promptly investigate the conditions, and if, as a result, finds that such conditions do so materially differ and cause an increase or decrease in the Contractor's cost of, or the time required for performance an equitable adjustment shall be made and the Contract Documents modified in writing accordingly. Any claim of the Contractor for adjustment hereunder shall not be allowed unless Contractor has given notice as above required.

60.3 Public Utility Facilities on Project Site: Pursuant to Government Code, Section 4215, the Contractor shall be compensated for the costs of locating and repairing damage to public utility facilities on the Project site which was not due to failure of Contractor to exercise reasonable care, and removing or relocating main or trunk line utility facilities located on the Project site, if such work is required in the Contract Documents or the Project Manager. Such compensation shall also cover the cost of Contractor's equipment necessarily idled during such work. This provision shall not be deemed to require compensation when the presence of existing service laterals or appurtenances can be inferred from the presence of visible facilities such as buildings, meter and junction boxes, on or adjacent to the construction site. If the Contractor discovers such unidentified utility facilities during construction, Contractor shall immediately notify the Project Manager and the utility in writing.

60.4 Space at Site: The Contractor shall be allowed reasonable space at the site of the work as available and access thereto and shall confine Contractor operations to the space assigned. The work shall be done without interference with the ordinary use of the fire station. The Contractor shall cooperate with other Contractors of the OCFA and shall not commit or permit any act which will interfere with the performance of work by any other Contractor or employees of the OCFA whether at the site or not.

61 **Conditions Affecting The Work**

The Contractor shall be responsible for having taken steps reasonably necessary to ascertain the nature and location of the work, and the general and local conditions which can affect the work or the cost thereof. Any failure by the Contractor to do so will not relieve Contractor from responsibility for successfully performing the work without additional expense to the OCFA. The OCFA assumes no responsibility for any understanding or representations concerning conditions made by any of its officers or agents prior to the execution of the Contract Documents, unless such understanding or representations by the OCFA are expressly stated in the Contract Documents.

62 OCFA's Property On Site

All fixtures, facilities, equipment, vehicles, furniture, and all other personal property of the OCFA located at the job site which are removed in the course of construction of the Project remain the property of the OCFA unless express provision to the contrary is made in the Contract Documents, and the Contractor shall exercise reasonable care to prevent loss or damage to said property and shall deliver promptly such property to the place designated by the Project Manager.

63 Protection

- 63.1 The Contractor shall, throughout the performance of the Work, maintain adequate and continuous protection of all Work, all material and supplies, and temporary facilities against loss or damage from whatever cause, shall protect the property of OCFA and third parties from loss or damage from whatever cause, and shall comply with the requirements of OCFA and its insurers and with all applicable laws, codes, rules and regulations with respect to the prevention of loss or damage to property as a result of fire or other hazards.
- 63.2 The Project Manager may, but shall not be required to, make periodic patrols of the Site as a part of its normal security and safety program. In such event, however, the Contractor shall not be relieved of its aforesaid responsibilities and OCFA shall not assume same, nor shall it be deemed to have assumed, any responsibility otherwise imposed upon the Contractor by the Contract.
- 63.3 Until final acceptance of the Work by OCFA, the Contractor shall have full and complete charge and care of and, except as otherwise provided in this Subparagraph, shall bear all risk of loss of, and injury or damage to, the Work or any portion thereof (specifically including OCFA-furnished supplies, equipment or other items to be utilized in connection with, or incorporated in, the Work), materials, equipment, and supplies, from any cause whatsoever, subject to the limitations set forth below.
- 63.4 The Contractor shall rebuild, repair, restore, replace, and make good all losses of, and injuries or damages to, the Work or any portion thereof (specifically including OCFA-supplied, equipment or other items to be utilized in connection with, or incorporated in, the Work), material, equipment, and supplies before final acceptance of the Work. Such rebuilding, repair, replacement, or restoration shall be at the Contractor's sole cost and expense.
- 63.5 Contractor shall take proper safety and health precautions to protect the work, the workers, the public, and the property of others. Contractor shall comply with the provisions of the Construction Safety Orders issued by the State Division of Occupational Safety & Health. Contractor shall also be responsible for all materials delivered and work performed until completion and acceptance of the entire construction work, except for any completed unit of construction thereof which theretofore may have been accepted.
- 63.6 The Contractor shall maintain continuously adequate protection of all work from damage and shall protect the OCFA's property from injury or loss arising in connection with the Contract Documents. Contractor shall make good any such damage, injury, or loss, except such as may be directly due to errors in the Contract Documents or caused by agents or representatives of the OCFA. Contractor shall adequately protect adjacent property as provided by law and the Contract Documents, and shall maintain reasonable security of the site at all times, if necessary. Contractor shall limit visitors to the site to those necessary for construction and inspections. Visitors for other purposes shall be referred to the Project Manager Contractor's and subcontractors' employees shall possess means of identification at all times as required by the Project Manager while on the job site.

- 63.7 In an emergency affecting the safety of life or of the work or of adjoining property the Contractor, without special instruction or authorization from the OCFA, is hereby permitted to act at Contractor's discretion to prevent such threatened loss or injury. Contractor shall so act if directed or instructed by the Project Manager. Any dispute as to compensation claimed by the Contractor on account of emergency work shall be determined by agreement as hereinafter set forth.
- 63.8 The Project Manager may notify the Contractor of any noncompliance with the foregoing provisions and the action to be taken. The Contractor shall, after receipt of such notice, immediately correct such conditions. Such notices, when delivered to the Contractor or Contractor's representative at the site of the work, shall be deemed sufficient for said purpose. Failure of receipt of such notice from the Project Manager shall not relieve the Contractor of responsibility.
- 63.9 If the Contractor fails or refuses to comply promptly, the Project Manager may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to any such stop order shall be made the subject of a claim for extension of time or for excess costs or damages to the Contractor. The Contractor will be responsible for ensuring that his subcontractors comply with the provisions of this Section 63.
- 63.10 Surface or Subsurface water or other fluid shall not be permitted to accumulate in excavations or under the structures. Should such conditions develop or be encountered, the water or other fluid shall be controlled and suitably disposed of by means of temporary pumps, piping, drainage lines and ditches, dams or other methods approved in writing by OCFA. The proposed location and coordination of temporary channels and conduits conducting accumulated water from the Site shall be submitted to Project Manager for its prior written approval. All such work shall be done at the sole expense of the Contractor, and in accordance with the Federal National Pollutant Discharge Elimination System (NPDES) and the NPDES General Construction Permit which includes the Contractor's Storm Water Pollution Prevention Plan (SWPPP) pursuant thereto.

64 Payments

The OCFA shall make payments upon the contract price in accordance with the Contract Documents.

65 Assignment

The Contract Documents, and any portion thereof, may not be assigned by the Contractor. Claims for monies due or to become due the Contractor from the OCFA under the Contract Documents may be assigned, with the written consent of the Board of Directors, to a bank, trust company, or other financing institution and may thereafter be further assigned or reassigned to any such institution. To effect such assignments, the Contractor, or Contractor's assignee, shall submit a written request to the Board of Directors enclosing a letter from the proposed assignee indicating that it will accept such assignment. Any attempted assignment contrary to provisions of this paragraph shall be void.

66 Other Contracts

The Board of Directors may undertake or award other contracts for additional work or other work, and the Contractor shall fully cooperate with such other contractors and OCFA employees and carefully fit Contractor's own work to such additional work as may be directed by the Project Manager. The Contractor shall not commit or permit any act which will interfere with the performance of work by any other contractor or by OCFA employees.

67 Warranty / Warranty Work

- 67.1 One-Year Warranty: The Contractor agrees to maintain and guarantees for a period of twelve (12) months from the date of the issuance of the certificate of acceptance of the Project or the issuance of a temporary certificate of occupancy as requested by the Fire Chief in the Fire Chief's sole discretion, whichever event occurs first, (and for such additional or extended periods for portions of the Work as provided in the Project Manual), that the completed work is free from all defects due to faulty materials, equipment or workmanship and that Contractor shall promptly make whatever adjustments or corrections which may be necessary to cure any defects, including repairs or any damage to the Site, Project, Work, or any system installed therein resulting from such defects. .
- 67.2 Warranty Work / Normal Response Time: In the event of failure to comply with the above-mentioned conditions within one (1) week after being notified in writing, the OCFA is hereby authorized to proceed to have the defects remedied and made good at the expense of the Contractor who hereby agrees to pay the cost and charges therefore immediately on demand.
- 67.3 Warranty Work / Emergency Response Time: If in the opinion of the OCFA, defective work creates a dangerous condition, affects the OCFA's essential operations / essential use of the facility, affects the safety or preservation of property or personnel, or requires immediate correction or attention to prevent further loss to the OCFA, the Contractor shall be required to take corrective action within 24 hours after personal or telephonic notice by the OCFA's Property Management Section. If the Contractor cannot be contacted or does not comply with the OCFA's request for correction within 24 hours (or a reasonable time as determined by the OCFA), the OCFA may, notwithstanding the provisions of this Section 67, proceed to make such correction, the cost of which shall be charged against the Contractor.
- 67.4 Failure to Take Corrective Action: Failure by the Contractor to take corrective action as specified above shall constitute a material breach of this agreement and will result in the OCFA taking whatever corrective action it deems necessary including termination of this agreement. All costs resulting from such action by the OCFA will be claimed against Contractor or, if necessary, the Contractor's Performance Bond. The Contractor's Performance Bond shall remain in full force and effect through the warranty period.
- 67.5 Alternative Remedy: In the event that the Contractor fails to make adjustments, repairs, corrections or other work made necessary by such defects, or to properly maintain and service the Project, the OCFA may do so and charge the Contractor the cost incurred. The performance bond shall remain in full force and effect through the guarantee period or, at the option of the Contractor, a warranty bond in the amount of one hundred percent of the Contract price may be substituted for the performance bond. Such warranty bond must be in a form approved by OCFA General Counsel, be issued by a surety authorized by the State Insurance Commissioner to transact business in the State of California as a surety, and must have and maintain, throughout the warranty period, at least an "A-" policyholder's rating, or better, and a financial rating of "Class VII," or better, in accordance with the most current A.M. Best's Rating Guide.
- 67.6 All Inclusive Remedies: The Contractor' obligations under this clause are in addition to the Contractor's other express or implied assurances of this Contract, Project Manual, or state law and in no way diminish any other rights that the OCFA may have against the Contractor for faulty materials, equipment, or work.

68 Extra Work And Changes

- 68.1 The Contract price as set forth in the Contract and the Contractor's Bid, includes compensation for all work performed by Contractor, unless Contractor obtains a written change order signed by the Project Manager specifying the exact nature of the extra work and the amount of extra compensation to be paid all as more particularly set forth in this Section 1.16. OCFA shall extend the time fixed in the Contract Documents for completion of the Project by the number of days reasonably required for Contractor to perform the extra work only if Contractor is actually delayed in the performance of any item of the Project on the critical path by:
- 68.1.1 Any act or neglect of OCFA, Project Manager, Design Professional, or any employee, agent, or representative of OCFA; or
 - 68.1.2 Combined action of workers, either those employed on the Project or in any industry essential to the conduct of the Work not caused by or resulting from default, negligence, or collusion on the part of Contractor or its Subcontractors of every tier; or
 - 68.1.3 Unusually severe weather conditions not reasonably anticipatable for that portion of the Site is located, based upon U.S. Weather Bureau climatological reports for the months included plus a report indicating average precipitation, temperature, etc. for the last ten (10) years from the nearest reporting station; or
 - 68.1.4 Excusable Transportation Delays; or
 - 68.1.5 Excusable Labor Disputes; or
 - 68.1.6 Acts of God; or
 - 68.1.7 National Emergency, declared by the President of the United States.

In the event one or more of the specific situations described above occurs, the Scheduled Completion Date may be extended by Change Order for a period not to exceed the length of such delay, provided that Contractor presents a written request to Project Manager, with demonstrated justification, for such time extension within five (5) days of the commencement of such delay. Failure to file such request within the time allowed shall be deemed a waiver of the claim by Contractor as determined by Project Manager. The decision of the Project Manager shall be final.

- 68.2 The Project Manager may, at any time, by written order, and without notice to the sureties, make changes in the drawings or specifications of the Contract Documents if within the general scope thereof. A change order shall also be any other written order (including direction, instruction, interpretation or determination) from the OCFA which causes any change, provided Contractor gives the OCFA written notice stating the date, circumstances and source of the order and that Contractor regards the order as a change order.
- 68.3 If any change under this Section 1.16 causes an increase or decrease in Contractor's actual direct cost or the time required to perform any part of the work under this Contract, whether or not changed by any order, the Project Manager shall make an equitable adjustment and modify the Contract in writing. Except for claims based on defective specifications, no claim for any change shall be allowed for any costs incurred more than 20 days before the Contractor gives written notice as required below. In the case of defective specifications for which the OCFA is responsible, the equitable adjustment shall include any increased direct cost Contractor reasonably incurred in attempting to comply with those defective specifications.
- 68.4 No extension of time shall be given unless the delay for which a request is made is included in those items for which an extension to the Scheduled Completion Date is appropriate pursuant to the provisions of this Section 1.16 and the Project Manager finds that such reason for the delay actually adversely affected the ability of the Contractor to complete the Project

- by the Scheduled Completion Date or to complete a Milestone. Project Manager's decision will be conclusive on the parties to this Contract.
- 68.5 No claims by Contractor for additional compensation or damages for delays will be allowed unless Contractor satisfies the Project Manager that such delays were unavoidable and not the result of any action or inaction of Contractor and that Contractor took all available measures to mitigate such damages. The Project Manager's decision will be conclusive on all parties to this Contract.
- 68.6 No extension of the Scheduled Completion Date or the right on the part of Contractor to secure any such extension pursuant to this Section 1.16 shall prejudice any right OCFA may have under the Project Manual, or otherwise, to terminate this Contract.
- 68.7 The Contract Price includes compensation for all work performed by Contractor, unless Contractor obtains a written change order signed by the Project Manager specifying the exact nature of the extra work and the amount of extra compensation to be paid all as more particularly set forth in in this Section 1.16.
- 68.8 Project Manager may extend the Scheduled Completion Date by the number of days reasonably required for Contractor to perform the extra work, but only to the extent such extra work actually adversely affects the Scheduled Completion Date, as determined by Project Manager. The decision of the Project Manager shall be final.
- 68.9 The OCFA or the Fire Chief may order modifications or authorize change orders for any reason. Such modifications shall be reviewed, evaluated, and processed in the manner specified in this Section 1.16.
- 68.10 Project Manager may at any time, without notice to any surety, by written order designated or indicated to be a Class 1 or Class 2 Change Order, make any change in the work within the general scope of the Contract, including, but not limited to, changes in:
- 68.10.1 The Project Manual (including drawings and designs);
 - 68.10.2 The time, method, or manner of performance of the work;
 - 68.10.3 The OCFA-furnished facilities, equipment, materials, services, or site; or
 - 68.10.4 Directing acceleration in the performance of the work.
- 68.11 Except as provided in this Section 68, no order, statement or conduct of the OCFA or its representatives, including, but not limited to the Fire Chief, Project Manager, or the Design Professional, shall be treated as a change under this Section 1.16 or entitle Contractor to an equitable adjustment.
- 68.12 If any change under this Section 68 causes an increase or decrease in Contractor's actual, direct cost or the time required to complete the Project or a Milestone under this Contract and Project Manual, whether or not changed by any order, the Project Manager shall make an equitable adjustment and the OCFA shall modify the Contract in writing. Except for Class 1 claims based on defective provisions of the Project Manual, no claim for any change under Section 1.16 shall be allowed for any costs incurred more than 15 days before the Contractor gives written notice as required in this Section 1.16. In the case of defective specifications for which the OCFA is responsible, the equitable adjustment shall include any increased direct cost Contractor reasonably incurred in attempting to comply with those defective specifications.

- 68.13 If Contractor intends to assert a claim for an equitable adjustment under this Section 1.16, it must, within fifteen (15) days after receipt of a written change order under this Section 1.16 or the furnishing of a written notice hereunder, submit a written statement to the Project Manager setting forth the general nature and monetary extent of such claim. Such claim shall contain the documentation and information as specified herein. The Project Manager may extend the 15-day period so long as the request for the extension is submitted within such 15-day period and only for good and justified cause. Project Manager's decision regarding any request for extension shall be final and binding on all parties.
- 68.14 Claim documentation shall conform to generally accepted accounting principals and all supporting documentation shall be cited by reference, photocopies, or explanation. Supporting documentation may include, but shall not be limited to, general conditions, general requirements, technical specifications, drawings, correspondence, conference notes, shop drawings logs, survey books, inspection reports, delivery schedules, test reports, daily reports, subcontracts, fragmentary schedules or time impact analyses, photographs, technical reports, requests for information, field instructions, and all other related records necessary to support Contractor's claim.
- 68.15 Supporting documentation of damages for each claim shall be cited, photocopied, or explained. Supporting documentation may include, but shall not be limited to, any or all documents related to the preparation and submission of the bid; certified, detailed labor records including labor distribution reports, material and equipment procurement records, construction equipment ownership cost records or rental records, Subcontractor or vendor files and cost records, service cost records, purchase orders, invoices, project as planned and as-built records, general ledger records, variance reports, accounting adjustment records, and any other accounting materials necessary to support Contractor's claim.
- 68.16 Each copy of the claim documentation shall be certified by a responsible office of the Contractor in accordance with the requirements of the Project Manual.
- 68.17 Should Contractor be unable to support any part of the claim and it is determined that such inability is attributable to falsity of such certification or misrepresentation of fact or fraud on the part of Contractor, the Contractor shall be liable to OCFA as provided for under California Government Code Section 12650 et seq.
- 68.18 Disputed work shall be performed as ordered in writing by the Project Manager, so long as the cost of such work is within the OCFA of the Project Manager as described above, so as to minimize the impact on, and delays to, the Work.
- 68.19 Costs which shall not be allowed or paid in Change Orders or claim settlements under this Contract include, but are not limited to, interest cost of any type other than those mandated by statute; claim preparation or filing costs; legal expenses; the costs of preparing or reviewing proposed Change Orders or change order proposals concerning change orders which are not issued by the OCFA; lost revenues; lost profits; lost income or earnings; rescheduling costs; costs of idled equipment when such equipment is not yet at the Site or has not yet been employed on the Work; lost earnings or interest on unpaid retainage; claims consulting costs; the costs of corporate officers or staff visiting the Site or participating in meetings with the OCFA; any compensation due to the fluctuation of foreign currency conversions or exchange rates; loss of other business; or any other cost identified as unallowable cost under the provisions of the Federal Acquisition Regulations.
- 68.20 No claim by Contractor for an equitable adjustment shall be allowed if made after final payment under this Agreement. Contractor hereby agrees to make any and all changes, furnish the materials and perform the work that OCFA or its Project Manager may require without

nullifying this Contract. Contractor shall adhere strictly to the Contract Documents unless a change therefrom is authorized in writing by the Project Manager, subject to the limitations contained herein. Under no condition shall Contractor make any changes to the Project, either in additions or deductions, without the written order of the OCFA or its Project Manager and the OCFA shall not pay for any extra charges made by Contractor that have not been agreed upon in advance in writing by the OCFA. Contractor shall submit immediately to the OCFA written copies of its firm's cost or credit proposal for change in the work. Disputed work shall be performed as ordered in writing by the OCFA or the Project Manager and the proper cost or credit breakdowns therefor shall be submitted without delay by Contractor to the Project Manager.

- 68.21 Project Manager is authorized by the Board of Directors to make, by written order, changes or additions to the work within the scope of the Contract Documents. This authority to approve changes is limited to 10% of the original contract amount. All changes over the amounts specified above shall be subject to the approval of the Board of Directors. Any change or addition of any kind pursuant to any provision of the Contract Documents which exceeds the limits described in this subsection and which have not been approved by the Board of Directors is void and can not be enforced against the OCFA.
- 68.22 Any claim of the Contractor for adjustment under this Section 1.16 or any other provision of the Project Manual must be asserted in writing within 15 days from the date of receipt by the Contractor of the notification of change unless the Board of Directors or Project Manager grants a further period of time before the date of final payment under the Contract Documents. Nothing provided in this Section 68 shall excuse the Contractor from proceeding with the prosecution of the work as changed. Except as otherwise provided in this Contract, no charge for any extra work or material will be allowed.
- 68.23 Labor wage rates shall not exceed the Prevailing Wage Rates supported by payroll records. Equipment rental rates should be based on latest edition of equipment rental rates published by the State of California Department of Transportation; Division of Construction.
- 68.24 Nothing in this Section shall excuse the Contractor from proceeding with the Contract Documents as changed.

69 No Verbal Modifications

No verbal statement of any person whomsoever shall in any manner or degree modify or otherwise affect the terms of the Contract or the Project Manual.

70 Material, Workmanship, And Acceptance

- 70.1 Where materials are specified by reference to standard specifications of the American Society for Testing Materials (A.S.T.M.), Federal Specifications, or others, all applicable provisions of the designated specifications shall be considered as forming a part of the Contract Documents to the same force and effect as if repeated therein.
- 70.2 All work under this Contract Documents shall be performed in a skillful and workmanlike manner. The Project Manager may, in writing, require the Contractor to remove from the work any employee the Project Manager deems incompetent, careless, or otherwise objectionable.
- 70.3 The Contractor shall, without charge, replace any material or correct any workmanship found by the Project Manager not to conform to the contract requirements, unless in the public interest the Project Manager consents to accept such material or workmanship with an

appropriate adjustment in contract price. The Contractor shall promptly segregate and remove rejected material from the premises.

70.4 If the Contractor does not promptly replace rejected material or correct rejected workmanship, the OCFA (1) may, by contract or otherwise, replace such material or correct such workmanship and charge the cost thereof to the Contractor, or (2) may terminate the Contractor's right to proceed in accordance with these General Conditions.

70.5 Unless otherwise provided in the Contract Documents, acceptance by the OCFA shall be accomplished by recordation of Notice of Completion which shall be made as promptly as practicable after completion and inspection of all work required by the Contract Documents. Acceptance shall be final and conclusive except as regards latent defects, fraud, or such gross mistakes as may amount to fraud, or as regard the OCFA's rights under any warranty or guarantee. Informal procedures such as "punch lists" are not to be deemed final or conditional acceptance.

71 Termination For Default & Damages For Delay

71.1 The Contract may be terminated in whole or in part in writing by either party in the event of substantial failure by the other party to fulfill its obligations under this Agreement through no fault of the terminating party, provided that no termination may be effected unless the other party is given: (1) Not less than ten (10) calendar days' written notice (delivered by certified mail, return receipt requested) of intent to terminate; and (2) An opportunity for consultation with the terminating party prior to termination.

71.2 If the Contractor refuses or fails to prosecute the work with such diligence as will ensure its completion within the time specified in the Contract Documents or any extension thereof, or fails to complete said work within such time, the Board of Directors may, by written notice to the Contractor, terminate Contractor's right to proceed with the work or such part of the work as to which there has been delay. In such event, the OCFA may take over the work and prosecute the same to completion, by contract or otherwise, and may take possession of and utilize in completion the work such materials, appliances, and plant as may be on the site of the work and necessary therefor. Whether or not the Contractor's right to proceed with the work is terminated, Contractor and Contractor's sureties shall be liable for any damage to the OCFA resulting from Contractor's refusal or failure to complete the work within the specified time.

71.3 Fixed and agreed liquidated damages are provided in the Contract Documents, these General Conditions, paragraph 1.38 J. If the OCFA so terminates the Contractor's right to proceed, the resulting damage will consist of such liquidated damages until such reasonable time as may be required for final completion of the work together with any increased costs occasioned the OCFA in completing the work.

71.4 Fixed and agreed liquidated damages are provided in the Contract Documents, these General Condition, paragraph 1.38 J. If the OCFA does not so terminate the Contractor's right to proceed, the resulting damage will consist of such liquidated damages until the work is completed or accepted.

71.5 The Contractor's right to proceed shall not be so terminated nor the Contractor charged with resulting damage if the Contractor is actually delayed in the performance of any item of the Project on the critical path by:

71.5.1 Any act or neglect of OCFA, Project Manager, Design Professional, or any employee, agent, or representative of OCFA; or

71.5.2 Combined action of workers, either those employed on the Project or in any industry essential to the conduct of the Work not caused by or resulting from default, negligence, or collusion on the part of Contractor or its Subcontractors of every tier; or

71.5.3 Unusually severe weather conditions not reasonably anticipatable for that portion of the County of Orange where the Project site is located, based upon U.S. Weather Bureau climatological reports for the months included plus a report indicating average precipitation, temperature, etc. for the last ten (10) years from the nearest reporting station; or

71.5.4 Excusable Transportation Delays; or

71.5.5 Excusable Labor Disputes; or

71.5.6 Acts of God; or

71.5.7 National Emergency, declared by the President of the United States.

The Scheduled Completion Date may be extended by Change Order for a period not to exceed the length of such delay, provided that Contractor presents a written request to Project Manager, with demonstrated justification, for such time extension within five (5) days of the commencement of such delay. Failure to file such request within the time allowed shall be deemed a waiver of the claim by Contractor. No extension of time shall be given unless the delay for which a request is made is included in those items for which an extension to the Scheduled Completion Date is appropriate as provided above and the Project Manager finds that such reason for the delay actually adversely affected the ability of the Contractor to complete the Project by the scheduled completion date. Project Manager's decision will be conclusive on the parties to this Contract. No claims by Contractor for additional compensation or damages for delays will be allowed unless Contractor satisfies the Project Manager that such delays were unavoidable and not the result of any action or inaction of Contractor and that Contractor took all available measures to mitigate such damages. The Project Manager's decision will be conclusive on all parties to this Contract. Project Manager may extend the time indicated for completion of the Project by the number of days reasonably required for Contractor to perform the extra work, but only to the extent such extra work actually adversely affects the Scheduled Completion Date, as determined by Project Manager. The decision of the Project Manager shall be final.

The rights and remedies of the OCFA provided in this Section 71 are in addition to any other rights and remedies provided by law or under the Contract Documents.

72 OCFA's Rights Regarding Work

72.1 If the Work or any portion thereof is defective and/or does not conform to the Project Manual, or if Contractor fails to supply sufficient skilled workers and suitable material, services, or equipment, or if Contractor fails to make prompt payments to Subcontractors or for labor, materials, or equipment, or if Contractor fails to supervise or coordinate the Work, or if grounds exist pursuant to any other provision of the Project Manual, Project Manager may order Contractor to stop the Work, or any portion thereof, until cause for the order to stop has been eliminated. Project Manager's exercise of this right to stop the Work shall not give rise to any duty on the part of the Project Manager to exercise this right for the benefit of Contractor or any other party. This right to stop the Work pursuant to this Section is in addition to and not in limitation of OCFA's rights to terminate this Contract in accordance with the Project Manual.

- 72.2 Project Manager may at any time and without cause suspend the Work or any portion thereof by written notice to Contractor and a Change Order shall be issued extending the Scheduled Completion Date by the number of days of such suspension. For suspensions of the Work which are fourteen (14) days or less, Contractor shall recommence the Work at the direction of Project Manager with the Lump Sum Price remaining unchanged. Provided Contractor is not in default of the terms of the Project Manual, if there is a suspension of Work or suspensions which in the aggregate extend beyond fourteen (14) days, Contractor shall recommence the Work at the direction of Project Manager and Contractor and Project Manager shall, at Contractor's written request and through good faith negotiations, equitably adjust the Scheduled Completion Date and any Milestones, and shall equitably adjust the Lump Sum Price, in an amount to be approved by the Fire Chief or the OCFA, which approval shall not be unreasonably withheld, for each day of such suspension exceeding fourteen (14) days. Adjustments to the Scheduled Completion Date or completion of a Milestone shall only be provided to the extent the suspension of Work actually adversely affects the Scheduled Completion Date or completion of a Milestone, as determined by Project Manager. The decision of the Project Manager shall be final.
- 72.3 In the event the Project Manager determines that the progress of the Work is behind the progress set forth in the Contractor's Construction Schedule, Project Manager may require Contractor to take such actions as the Project Manager deems necessary to expedite the progress of the Work in conformance with the progress set forth in the Contractor's Construction Schedule. Such actions may include without limitation, increasing the number of workers performing the Work, utilizing overtime work, and requiring additional work shifts. Such action by Project Manager to place Contractor back on schedule shall not be the subject of a Change Order increasing the Lump Sum Price, nor shall Contractor receive any additional compensation for these activities.
- 72.4 Contractor shall cooperate with OCFA, Project Manager, Design Professional, and all other persons as OCFA may retain or employ for (by way of illustration only) installation of furniture, decoration, and training, and the like at the Project. Contractor acknowledges that it is critical to OCFA that separate Contractors are allowed to perform and coordinate the installation of furnishings, fixtures, and equipment not covered by this Contract but necessary for the Project. Contractor covenants to use its best efforts to prevent OCFA from suffering delay in completion of the Work as a result of Contractor's failure to cooperate and coordinate its work with Related Work as required by the Project Manual.
- 72.5 To the extent that OCFA timely provides to Contractor information relating to the work of its separate Contractors, the interrelationships between the work of separate Contractors and/or third parties such as OCFA's purchasing agent and any other special consultants shall be indicated on the Contractor's Construction Schedule to allow OCFA to provide for proper phasing.

73 Contract Price; Method of Payment; Retention Of Funds

- 73.1 OCFA agrees to pay and the Contractor agrees to accept as full consideration for the faithful performance of this Contract, subject to any subsequent additions or deductions as provided in approved change orders, the sum as itemized in the Exhibit K: Schedule of Values.
- 73.2 Progress payments shall be made to the Contractor per month for each successive month as the work progresses. The Contractor shall be paid such sum as will bring the total payments received since the commencement of the work up to ninety percent (90%) of the value of the work completed, less all previous payments, provided that the Contractor submits the request for payment prior to the end of the day required to meet the payment schedule. The OCFA

will retain ten percent (10%) of the amount of each such progress estimate and material cost until 30 days after the recordation of the Notice of Completion.

- 73.3 The Contractor shall request payment through the preparation and submission to OCFA of an Invoice in accordance with the Project Manual. It shall show in detail all monies properly payable to the Contractor, approved by the Project Manager, in accordance with the previously approved activities as identified on the Contractor's Construction Schedule, including those items of labor, materials, and equipment used or incorporated in the Work (and, if OCFA has agreed in advance in writing, suitably stored at the Site) through and including the Payment Application Date. The Application for Partial Payment shall have, as attachments waivers of mechanics' and materialmen's liens by the Contractor and its Subcontractors and Sub-subcontractors as of the date of submission of the Application for Partial Payment, which waivers shall conform in all material respects with the then current provisions of Section 3262 of the California Civil Code (or any successor thereto), certifications of payrolls (30 days in arrears), and such other evidence of performance of the Work, the costs thereof and payment therefor as OCFA may deem necessary or desirable.
- 73.4 The Contractor warrants that title to all Work, materials and equipment covered by an Application for Partial Payment shall pass to OCFA, free and clear of all liens, claims, security interests or encumbrances, upon the sooner occurrence of: (a) the delivery of any such materials or equipment to the Site; or (b) the tender of payment of the applicable Application for Partial Payment by OCFA to the Contractor; and that no Work, materials, or equipment covered by an Application for Partial Payment shall have been acquired, whether by the Contractor or by any Subcontractor or Sub-subcontractor, subject to an agreement under which an interest therein or an encumbrance thereon is retained by the seller or otherwise imposed by the Contractor or such other person. The passage of title to OCFA as provided herein shall not alter or limit the obligations and duties of the Contractor with respect to the Work and the materials or equipment incorporated therein or used in connection therewith as set forth in the Project Manual. In this regard, it is specifically noted that neither the OCFA, nor its Directors, officers, employees, or agents shall be held responsible in any manner for any loss that may happen to the Work or any part thereof during the course of construction; for any loss or damage to any of the materials, equipment, supplies, or other things used or employed in performing the Work; for injury to or death of any person, either workers or the public; or for damage to property, from any cause that might have been prevented by the Contractor, Contractor's workers, employees, Subcontractors, suppliers, or agents.
- 73.5 If the Contractor has submitted an Application for Partial Payment in the manner prescribed in the Project Manual, The Project Manager shall, with reasonable promptness, review, approve the same (or such portions thereof covering amounts it determines to be properly due), or shall state in writing its reasons for withholding its approval (whether of all or a part).
- 73.6 The Project Manager's approval of an Application for Partial Payment shall not constitute a representation by OCFA that the conditions precedent to the Contractor's entitlement to payment have been fulfilled, nor shall approval of an Application for Partial Payment by OCFA be deemed a representation by OCFA: (a) that it has made exhaustive or continuous on-site inspections to check the quality or quantity of the Work; (b) that it has reviewed the construction means, methods, techniques, sequences, coordination or procedures, or the cleanliness of the Site, or the safety precautions and programs, in connection with the Work; (c) that it has made any examination to ascertain how or for what purposes the Contractor has used the monies previously paid on account of the Contract Sum.
- 73.7 No approval of an Application for Partial Payment, progress payment or any beneficial, partial or entire use or occupancy of the Project by OCFA shall constitute an acceptance of any Work which is not in accordance with the Project Manual; and regardless of approval of an

Application for Partial Payment by OCFA, the Contractor shall remain totally obligated and liable for the performance of the Work in strict compliance with the Project Manual.

73.8 Subject to OCFA's rights to offset or withhold as set forth in these General Conditions, after OCFA has approved an Application for Partial Payment, in whole or in part, it shall make payment of the amount approved to the Contractor as provided in the Project Manual.

73.9 Pursuant to California Public Works Contract Code Section 22300, the Contractor will be entitled to post approved securities with the OCFA or an approved financial institution in order to have the OCFA release funds retained by the OCFA to ensure performance of the Contract. Contractor shall be required to execute an addendum to this Contract together with escrow instructions and any other documents in order to effect this substitution.

74 Right To Occupy - Beneficial Use

74.1 OCFA reserves the right, prior to Substantial Completion of the entire Project, to use a portion or portions of the Work when Project Manager determines that such portion or portions may be safe for such use provided such use will not unreasonably interfere with the Contractor's orderly progress of the Work. Such use ("beneficial use") shall not be construed as an acceptance of any such Work, or a part of the Work, as substantially complete, nor shall it affect the dates and times when payments shall become due from the OCFA to Contractor, nor shall it prejudice OCFA's rights pursuant to the Contract or any bonds guaranteeing the same. Notwithstanding such occupancy or use, Contractor shall continue to provide insurance, security, maintenance, utilities, and protection to the Work, unless otherwise agreed by the parties in writing.

74.2 At the sole discretion of the Fire Chief, any time after beneficial use and prior to issuance of a certificate of occupancy by the Local Jurisdictions, the Fire Chief may request one or more of the local Jurisdictions to issue a temporary certificate of occupancy for a portion or portions of the Project. Upon the issuance of such temporary certificate of occupancy, the OCFA may occupy such portion or portions of the Project, and such portions shall be deemed to be substantially complete.

74.3 Beneficial Occupancy shall not constitute acceptance by OCFA or Project Manager of the completed Work or any portion thereof, shall not relieve the Contractor of its full responsibility for correcting defective Work and repairing the Work, shall not be deemed to be the equivalent of completion of the Work and shall not entitle the Contractor to any increase in the Contract Sum.

74.4 Anything in this Section 74 to the contrary notwithstanding, OCFA may certify any portion of the Work to be occupied or used hereunder to be Substantially Completed and, upon the Contractor's timely completion or correction of the items on the "punch-list" with respect thereto, accept that portion of the Work.

75 Final Completion and Final Payment.

75.1 When all permits for the Work have been approved, accepted, or otherwise signed off as complete by the inspectors of the Local Jurisdictions, Contractor shall certify to the Project Manager in writing within ten (10) days that the Work is complete in accordance with the Project Manual and is ready for occupancy. Project Manager, Design Professional, and Fire Chief will make an investigation and inspection of all phases of the Work. If all contractual obligations have not been met, Project Manager shall furnish Contractor a detailed list of all remaining work (the "Punchlist") and Contractor shall commence correction of all items on the Punchlist. A letter of acceptance shall be issued upon completion of all Work specified on the

Punchlist to the satisfaction of the Project Manager. In no case will the letter of acceptance relieve Contractor of any obligations of Contractor that may be outstanding. Within five (5) business days after issuance of a letter of acceptance, Project Manager and the Design Professional shall issue a certificate of final completion. Upon receipt of the certificate of final completion, Contractor shall submit its final application for payment ("Final Application for Payment") which shall set forth all amounts due and remaining unpaid to Contractor and upon approval thereof by the Project Manager and the Design Professional, OCFA shall pay to Contractor the amount due under such Final Application for Payment as provided herein.

- 75.2 Before OCFA makes the Final Payment to Contractor, all requirements of the Project Manual shall have been fulfilled, including the following:
- (1) Receipt by Project Manager of a complete list of Subcontractors and principal vendors, including addresses, telephone numbers, and names of individuals to contact who are familiar with the Project, including Contractor;
 - (2) Receipt by Project Manager of all operation and maintenance manuals, approved by the Design Professional;
 - (3) Receipt by OCFA of all releases and written guarantees from all Subcontractors and material suppliers for the Project in a form and content satisfactory to the Project Manager, which Contractor hereby agrees to obtain for, and deliver to, Project Manager prior to completion of the Project;
 - (4) Receipt by Project Manager of all "As-Built" records, approved by Project Manager and the Design Professional as specified in the Project Manual;
 - (5) Copies of any other warranties or guarantees received from manufacturers, suppliers, or Subcontractors of Contractor or any Subcontractor; and
 - (6) Evidence satisfactory to the Project Manager showing that the Contractor has promptly and satisfactorily settled all claims, if any, for services performed and materials furnished in connection with the Work.
 - (7) Receipt by Project Manager of all documentation necessary to demonstrate compliance with the Leadership and Environmental Design program requirements.
- 75.3 Final Payment shall not become due until Contractor submits to Project Manager: (1) an affidavit that all payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which OCFA or OCFA's property might in any way be responsible, have been paid or otherwise satisfied; (2) the consent of the surety to Final Payment; and (3) if reasonably required by the Project Manager, other data establishing payment or satisfaction of all such obligations, such as receipts, releases and waivers of liens arising out of the Contract, to the extent and in such form as may be designated by the Project Manager. Project Manager may require affidavits or certificates of payment and/or releases from any Subcontractor, laborer, or material supplier.
- 75.4 If any Subcontractor or material supplier refuses to furnish a release or waiver required by Project Manager, Contractor may satisfy its obligation with respect to such Subcontractor or material supplier by furnishing a cash bond, assignment of a certificate of deposit, or other liquid security satisfactory to Project Manager to indemnify OCFA against any lien. If any lien remains unsatisfied after all payments are made, Contractor shall refund to OCFA all monies that the OCFA may be compelled to pay in discharging such lien, including all costs and reasonable attorneys' fees.
- 75.5 The acceptance of Final Payment shall constitute a waiver of all claims by Contractor except those previously made in writing and identified by Contractor as unsettled at the time of the Final Application for Payment.

- 75.6 The making of Final Payment shall constitute a waiver of all claims by OCFA except those arising from (1) unsettled claims; (2) faulty or defective Work appearing after Final Completion of the Work; (3) failure of the Work to comply with the requirements of the Project Manual; (4) terms of any special warranties required by the Project Manual; (5) "Punchlist" items not yet completed by the Contractor; (6) discrepancies noted in subsequent audits performed by OCFA or its agents within one (1) year following Final Payment; or (7) any claims identified by Project Manager as unsettled prior to making of Final Payment.
- 75.7 Final Payment shall not relieve Contractor of its warranty and indemnification obligations pursuant to the Project Manual, which shall survive such payment.
- 75.8 Contractor shall keep and present within fifteen (15) days after request by OCFA or its agents, in a form reasonably approved by the Project Manager, a final itemized accounting of all expenditures made in connection with the Work together with appropriate suplf any Subcontractor or Sub-subcontractor refuses to furnish any release, satisfaction or waiver of lien required at any time by OCFA under Paragraphs 9.1., or files a claim of lien against OCFA's property, the Contractor shall, if requested by Project Manager and at the Contractor's expense, furnish and record a Mechanic's Lien Release Bond (separate and apart from any other bond provided by the Contractor hereunder) that is in full compliance with the requirements of the then current provisions of Section 3143 of the California Civil Code. If any Subcontractor or Sub- subcontractor serves a Stop Notice (bonded or otherwise) on OCFA, Contractor shall, if requested by OCFA and at Contractor's expense, furnish a Stop Notice Release Bond (separate and apart from any other bond provided by the Contractor hereunder) that is in full compliance with the then current provisions of Section 3171 of the California Civil Code. The Contractor authorizes OCFA, and shall cause its Subcontractors and Sub-subcontractors to authorize OCFA, to check directly with any suppliers of labor and material with respect to any item chargeable to OCFA's property, to confirm balances due and to obtain sworn statements and waivers of lien, all if OCFA so elects. If any lien remains unsatisfied after all payments are made to the Contractor, the Contractor shall reimburse OCFA on account of all monies that the latter may be compelled to pay in discharging such lien, including all costs and attorneys' fees.

76 Surety Bonds.

Contractor shall, upon entering into performance of this Agreement, furnish a bond in the amount of one hundred percent (100%) of the Contract price bid, to guarantee the faithful performance of the work, and an additional bond in the amount of one hundred percent (100%) of the Contract price bid to guarantee payment of all claims for labor and materials furnished. The bonds required pursuant to this Section shall be issued by a surety authorized by the State Insurance Commissioner to transact business in the State of California as a surety and shall have and maintain throughout the life of the Project, at least an "A-" policyholder's rating, or better, and a financial rating of "Class VII," or better, in accordance with the most current A.M. Best's Rating Guide. This Contract shall not become effective until such bonds are supplied to and approved by the OCFA.

77 Risk And Indemnification

- 77.1 Indemnification: To the fullest extent permitted by law, Contractor shall indemnify, defend (at Contractor's sole cost and expense and with legal counsel approved by OCFA, which approval shall not be unreasonably withheld), protect and hold harmless OCFA and all of OCFA's officers, directors, employees, consultants, agents, successors and assigns (collectively the "Indemnified Parties"), from and against any and all claims (including, without limitation, claims for bodily injury, death or damage to property), demands, obligations, damages, actions, causes of action, suits, losses, judgments, fines, penalties, liabilities, costs and expenses (including, without limitation, attorneys' fees, disbursements and court costs, and all other

professional, expert or consultants' fees and costs and OCFA's general and administrative expenses) of every kind and nature whatsoever (individually, a "Claim"; collectively, "Claims") which may arise from or in any manner related (directly or indirectly) to any work performed or services provided under this Agreement (including, without limitation, the negligent and/or willful acts, errors and/or omissions of Contractor, its principals, officers, agents, employees, Contractors, suppliers, consultants, subconsultants, subcontractors, anyone employed directly or indirectly by any of them or for whose acts they may be liable or any or all of them) regardless of any active or passive negligence or strict liability of an Indemnified Party. Contractor understands and acknowledges that the indemnification obligation hereunder is intended to constitute a "Type I" indemnity under California law and extends to and includes Claims arising from the active or passive negligence of Indemnified Parties. Notwithstanding the foregoing, nothing herein shall be construed to require Contractor to indemnify the Indemnified Parties from any Claim arising from the sole negligence or willful misconduct of the Indemnified Parties.

77.2 Duty to Defend: The duty to defend hereunder is wholly independent of and separate from the duty to indemnify and such duty to defend exists regardless of any ultimate liability of Contractor. Such defense obligation shall arise immediately upon presentation of a Claim by any party and written notice of such Claim being provided to Contractor. Payment to Contractor by any Indemnified Party or the payment or advance of defense costs by any Indemnified Party shall not be a condition precedent to enforcing such Indemnified Party's rights to indemnification hereunder. Contractor's indemnification obligation hereunder shall survive the expiration or earlier termination of this Agreement until such time as action against the Indemnified Parties for such matter indemnified hereunder is fully and finally barred by the applicable statute of limitations or statute of repose. Contractor's liability for indemnification hereunder is in addition to any liability Contractor may have to OCFA for a breach by Contractor of any of the provisions of this Agreement. Under no circumstances shall the insurance requirements and limits set forth in this Agreement be construed to limit Contractor's indemnification obligation or other liability hereunder. The terms of this Agreement are contractual and the result of negotiation between the parties hereto. Accordingly, any rule of construction of contracts (including, without limitation, California Civil Code Section 1654) that ambiguities are to be construed against the drafting party shall not be employed in the interpretation of this Agreement.

78 Insurance.

78.1 Compliance with Insurance Requirements.

78.1.1 As a condition precedent to the effectiveness of this Agreement, and without limiting the indemnity provisions set forth in this Agreement, Contractor shall obtain, maintain, and keep in full force and effect during the term of this Agreement, at its sole cost and expense, and in a form and content satisfactory to OCFA, all insurance required under this section. Contractor shall not commence any work or services under this Agreement unless and until it has provided evidence satisfactory to OCFA that it has secured all insurance required under this section. If Contractor's existing insurance policies do not meet the insurance requirements set forth herein, Contractor agrees to amend, supplement or endorse the policies to do so.

78.1.2 The amount of insurance coverage available to pay claims under each policy required hereunder shall be the higher of (a) the minimum limits required below, or (b) the actual limits established in each policy. Thus, by way of example only, if the minimum policy limit is \$2 million per occurrence but insurance actually carried by the Contractor or subcontractor is \$4 million per occurrence, the coverage required to be available for claims

under that policy would be \$4 million. (Nothing herein requires the Contractor to purchase insurance at limits greater than the minimum limits established below.)

78.2 Types of Insurance Required.

Contractor shall obtain and maintain in full force and effect during the term of this Agreement, including any extension thereof, the following policies of insurance:

78.2.1 Commercial General Liability Insurance. Contractor shall obtain and maintain, in full force and effect throughout the term of this Agreement, a policy of Commercial General Liability Insurance (Insurance Services Office form CG 00 01) written on an occurrence basis with limits of at least five million dollars (\$5,000,000.00) per occurrence, five million dollars (\$5,000,000.00) in the general aggregate, and five million dollars (\$5,000,000.00) for completed operations aggregate. Defense costs shall be paid in addition to (and shall not reduce) the limits. The policy shall contain no endorsements or provisions limiting coverage for: (1) contractual liability; (2) cross liability exclusion for claims or suits by one insured against another; or (3) any other exclusion contrary to the Agreement.

78.2.2 Automobile Liability Insurance. Contractor shall obtain and maintain, in full force and effect throughout the term of this Agreement, a policy of Automobile Liability Insurance (Insurance Services Office form CA 001) written on a per occurrence basis with limits of at least one million dollars (\$1,000,000.00) combined limit for each occurrence covering bodily injury and property damage. The policy shall specifically include coverage for owned, non-owned, leased, and hired automobiles.

78.2.3 Workers' Compensation Insurance. Contractor shall obtain and maintain, in full force and effect throughout the term of this Agreement, a policy of Workers' Compensation Insurance in at least the minimum statutory amounts, and in compliance with all other statutory requirements, as required by the State of California. Contractor hereby waives, and agrees to obtain endorsements from its workers' compensation insurer waiving, all subrogation rights against the OCFA, its officials, officers, employees, agents, representatives, attorneys and volunteers, and to require each of its subcontractors, if any, to waive the same and to obtain endorsements waiving the same subrogation rights under their workers' compensation insurance policies. Contractor shall obtain and maintain, in full force and effect throughout the term of this Agreement, a policy of Employer's Liability Insurance written on a per occurrence basis with limits of at least one million dollars (\$1,000,000.00) per incident for bodily injury, disease or other covered claim.

78.2.4 Builders Risk (Course of Construction) Insurance. Contractor shall obtain and maintain, in full force and effect throughout the term of this Agreement, a Builders Risk (Course of Construction) Insurance policy with limits of at least five million dollars (\$5,000,000.00). [Covered causes of loss shall include, or be endorsed to include, earthquake, flooding and other acts of God.] Contractor and each subcontractor agree to waive all rights of subrogation against the OCFA, its officials, officers, employees, agents, representatives, attorneys and volunteers. The Builders Risk policy shall be endorsed to waive all rights of subrogation against the OCFA, its officials, officers, employees, agents, representatives, attorneys and volunteers.

78.3 Acceptability of Insurers.

Insurance required by this section 78 shall be issued by a licensed company authorized to transact business in the state by the Department of Insurance for the State of California with a current rating

of A-:VII or better (if an admitted carrier), or a current rating of A:X or better (if offered by a non-admitted insurer listed on the State of California List of Approved Surplus Line Insurers (LASLI), by the latest edition of A.M. Best's Key Rating Guide, except that the OCFA will accept workers' compensation insurance from the State Compensation Fund. In the event the OCFA determines that the work or services to be performed under this Agreement creates an increased or decreased risk of loss to the OCFA, the Contractor agrees that the minimum limits of the insurance policies may be changed accordingly upon receipt of written notice from the OCFA. Contractor shall immediately substitute any insurer whose A.M. Best rating drops below the levels specified herein.

78.4 Insurance Endorsements.

Required insurance policies shall not be in compliance if they include any limiting provision or endorsement that has not been submitted to the OCFA for written approval. Required insurance policies shall contain the following provisions, or Contractor shall provide endorsements issued by the insurance company on forms approved by the OCFA to add the following provisions to the insurance policies:

- 78.4.1 Additional Insured: The OCFA and its officials, officers, employees, agents, representatives, attorneys and volunteers shall be additional insureds with regard to liability and defense of suits and claims arising out of the performance of the Agreement; and
- 78.4.2 Additional Insured Endorsements: Additional insured endorsements shall not: (1) be restricted to "ongoing operations", (2) exclude "contractual liability", (3) restrict coverage to "sole" liability of Contractor, or (4) contain any other exclusions contrary to the Agreement. The coverage shall contain no special limitations on the scope of protection afforded to additional insureds; and
- 78.4.3 Primary and Non-Contributing Insurance: All policies of Commercial General Liability Insurance and Automobile Liability Insurance shall be primary and any other insurance, deductible, or self-insurance maintained by the OCFA, its officials, officers, employees, agents, representatives, attorneys and volunteers, shall not contribute with this primary insurance. Policies shall contain, or be endorsed to contain, such provisions.
- 78.4.4 Waiver of Subrogation: All policies of Commercial General Liability, Automobile Liability Insurance and Worker's Compensation shall contain or be endorsed to waive all rights of subrogation against the OCFA, its officials, officers, employees, agents, representatives, attorneys and volunteers, or shall specifically allow Contractor or others providing insurance evidence in compliance with the requirements set forth in this section to waive their right to recovery prior to a loss. Contractor hereby agrees to waive its own right of recovery against the OCFA, its officials, officers, employees, agents, representatives, attorneys and volunteers, and Contractor hereby agrees to obtain similar written express waivers and insurance clauses from each of its subcontractors prior to commencement of work by the subcontractor.
- 78.4.5 Notice: Each policy of insurance required by this section 78 shall be endorsed to state that coverage shall not be suspended, voided, cancelled, or modified, or reduced in coverage or in limits, except after thirty (30) days prior written notice by First Class U.S. Mail, postage-prepaid, has been provided to the OCFA. Notwithstanding the foregoing, if coverage is to be suspended, voided, or cancelled because of Contractor's failure to pay the insurance premium, the notice provided to OCFA shall be by ten (10) days prior written notice. (Note: an endorsement that fails to state that the insurance company will provide the notice required by this subsection (e.g., "will endeavor to" or similar non-

committal phrases) does not comply with the requirements of this subsection. Similarly, Contractor's offer to provide the required notice in lieu of the insurance company doing so will not comply with this subsection. It is the Contractor's obligation to ensure that its insurance company(ies) will provide all policy endorsements required under this Contract.)

78.4.2 For all policies of Commercial General Liability Insurance, Contractor shall provide endorsements for completed operations to effectuate this requirement.

78.5. Deductibles and Self-Insured Retentions.

Any deductible or self-insured retention must be approved in writing by the OCFA in advance and shall protect the OCFA, its officials, officers, employees, agents, representatives, attorneys and volunteers in the same manner and to the same extent as they would have been protected had the policy or policies not contained a deductible or self-insured retention. Contractor shall be solely responsible for the payment, and if required by the insurer the advancement, of any and all deductible amounts and self-insured retentions.

78.6. Evidence of Coverage.

Within seven (7) calendar days after the date of the Notice of Apparent Low Bidder, Contractor shall deliver certificates of insurance together with original endorsements affecting each of the insurance policies required by this section. Required insurance policies shall not be in compliance if they include any limiting provision or endorsement that has not been submitted to the OCFA for written approval. The certificates of insurance and endorsements for each insurance policy shall be signed by a person authorized by that insurer to bind coverage on its behalf. (ACORD form Certificates of insurance will not be accepted in lieu of approved endorsements.) At least fifteen (15) days prior to the expiration of any such policy, evidence of insurance showing that such insurance coverage has been renewed or extended shall be filed with the OCFA. If such coverage is cancelled or reduced and not replaced immediately so as to avoid a lapse in the required coverage, Contractor shall, within ten (10) days after receipt of written notice of such cancellation or reduction of coverage, file with the OCFA evidence of insurance showing that the required insurance has been reinstated or is being provided through another insurance company or companies. Contractor shall promptly furnish, at OCFA's request, copies of actual policies including all declaration pages, endorsements, exclusions and any other policy documents OCFA requires to verify coverage.

78.7 Requirements Not Limiting.

Requirement of specific coverage or minimum limits contained in this section are not intended as a limitation on coverage, limits, or other requirements, or a waiver of any coverage normally provided by any insurance. Nothing in this section shall be construed as limiting in any way the indemnification provision contained in this Agreement, or the extent to which Contractor may be held responsible for payments of damages to persons or property.

78.8 Enforcement of Agreement (Non-Estoppel).

Contractor acknowledges and agrees that actual or alleged failure on the part of the OCFA to inform Contractor of any non-compliance with any of the insurance requirements set forth in this section imposes no additional obligation on the OCFA nor does it waive any rights hereunder.

78.9 Insurance for Subcontractors.

Contractor shall either: (1) include all subcontractors engaged in any work or services for Contractor relating to this Agreement as additional named insureds under the Contractor's insurance policies; or (2) Contractor shall be responsible for causing its subcontractors to procure and maintain the same types and amounts of insurance in compliance with the terms of the insurance requirements set forth in this section (except Builders Risk (Course of Construction) Insurance), including but not limited to adding the OCFA, its officials, officers, employees, agents, representatives, attorneys and volunteers, as additional insureds to their respective policies. All policies of Commercial General Liability Insurance and Automobile Liability Insurance provided by Contractor's subcontractors performing any work or services related to this Agreement shall be endorsed to name the OCFA, its officials, officers, employees, agents, representatives, attorneys and volunteers, as additional insureds. Contractor shall not allow any subcontractor to commence any work or services relating to this Agreement unless and until the Contractor has received confirmation that the subcontractor has secured all required insurance. Upon request of OCFA, Contractor shall deliver to OCFA all certificates of insurance and endorsements required from subcontractors. (Note: Contractor's duty to obtain all required insurance for subcontractors required under this Agreement applies whether or not OCFA requests delivery of evidence of such coverage.)

78.10. Insurance for Large Equipment Suppliers

Suppliers of large equipment that will be installed as part of the Project must have and maintain General Liability Insurance and Automobile Insurance with all endorsements required hereinabove unless the Contractor or Subcontractor that will install the large equipment maintains General Liability Insurance and Automobile Liability Insurance that is endorsed to name the large equipment supplier as an additional named insured and such endorsement is provided to OCFA prior to delivery of the large equipment.

78.11 Other Insurance Requirements.

The following terms and conditions shall apply to the insurance policies required of Contractor pursuant to this Agreement:

78.11.1 Contractor shall provide immediate written notice to OCFA if (1) any of the insurance policies required herein are terminated, cancelled or suspended, (2) the limits of any of the insurance coverage types or amounts required herein are reduced by the insurer or depleted by other claims, or (3) the deductible or self-insured retention is increased.

78.11.2 All insurance coverage and limits provided by Contractor and available or applicable to this Agreement are intended to apply to each insured, including additional insureds, against whom a claim is made or suit is brought to the full extent of the policies. Nothing contained in this Agreement or any other agreement relating to the OCFA or its operations shall limit the application of such insurance coverage.

78.11.3 None of the insurance coverages required herein will be in compliance with the requirements of this section if they include any limiting endorsement which substantially impairs the coverages set forth herein (e.g., elimination of contractual liability or reduction of discovery period), unless the endorsement has first been submitted to the OCFA and approved in writing.

78.11.4 Certificates of insurance will not be accepted in lieu of required endorsements, and submittal of certificates without required endorsements may delay commencement of the Project. It is

Contractor's obligation to ensure timely compliance with all insurance submittal requirements as provided herein.

78.11.5 Contractor agrees to ensure that subcontractors, if any, and any other parties involved with the Project who are brought onto or involved in the Project by Contractor, have, or are provided by Contractor's insurer, the same minimum insurance coverage required of Contractor. Contractor agrees to monitor and review all such coverage and assumes all responsibility for ensuring that such coverage is provided in conformity with the requirements of this section. Contractor agrees that upon request, all agreements with subcontractors and others engaged in the Project will be submitted to the OCFA for review. Claims for which coverage is required but not provided due to Contractor's failure to comply with this section (e.g., allowing subcontractors to proceed with disallowed limitations on their insurance coverage, or failing to require subcontractors to provide required insurance coverage or endorsements) will result in retention of payments in amounts necessary to cover the anticipated costs associated with defending and paying the claims.

78.11.6 Contractor agrees to provide immediate written notice to OCFA of any claim, demand or loss against Contractor arising out of the work or services performed under this Agreement and for any other claim, demand or loss which may reduce the insurance available to pay claims, demands or losses arising out of this Agreement.

79. Contractor's Liability; OCFA Not Liable; Claims Resolution

79.1 Contractor's liability. The Contractor shall be responsible for any loss or damage that may occur to:

- The work or any part thereof;
- Any of the materials or other things used or employed in performing the work;
- Any injury to any person or persons, either workers or the public;
- Any damage to property resulting from any cause which might have been prevented by the Contractor, including defects or obstructions at any time before completion of the work and its final acceptance.

79.2. OCFA ordered precautions. If, in the opinion of the Engineer, the precautions taken by Contractor are not safe or adequate at any time during the term of the Contract, the Engineer may order the Contractor to take further precautions, and if the Contractor shall fail to do so, the Engineer may order the work done by others and charge the Contractor for the cost thereof, such cost to be deducted from any moneys due or becoming due the Contractor. Failure of the Engineer to order such additional precautions, however, shall not relieve the Contractor from his full responsibility for public safety.

79.3 OCFA not liable. The OCFA shall not be answerable or accountable in any manner, for any loss or damage that may occur to any of the following from any cause which might have been prevented by the Contractor:

- The work or any part thereof;
- Any of the materials or other things used or employed in performing the work;
- Any injury to any person or persons, either workers or the public;
- Any damage to property.

79.4 Claims Resolution.

79.4.1. From time to time during the period of this contract, the OCFA and/or the Contractor may be served with third-party claims, as a result of alleged conduct by Contractor. The following procedures shall be followed by OCFA and Contractor:

For claims received by Contractor:

(1) Contractor shall provide OCFA on a monthly basis details regarding any claim for damages to persons or property, including, date claim made, date of alleged damages, type of damages, alleged cause of damages and, as claims are resolved, details regarding Contractor's denial or payment of such claim and the reasons for denial or payment.

(2) Contractor shall resolve or deny any claim received within thirty (30) days of receipt. If Contractor is unable to resolve a claim within the thirty (30) days set forth above, it shall, prior to the expiration of the thirty (30) days request and extension in writing from the OCFA.

For claims received by OCFA:

(1) OCFA shall process any claims received pursuant to the California Government Claims Act.

(2) If after investigation of the claim, the OCFA determines the Contractor is liable under this Contract, OCFA shall tender the claim to the Contractor for proper handling and resolution.

79.5. Retention of Claimed Damages by OCFA. The OCFA may retain so much of the money due the Contractor under and by virtue of the Contract as shall be considered necessary by the OCFA until disposition has been made of such suits or claims for damages aforesaid.

80 Termination

80.1 The performance of work under the Contract Documents may be terminated in whole, or from time to time in part, whenever the Board of Directors shall determine that such termination is in the best interest of the OCFA, provided that the Contractor is given (1) Not less than ten (10) calendar days' written notice (delivered by email, followed by overnight delivery with proof of delivery) of intent to terminate; (2) the extent to which performance of work under the Contract Documents is terminated; (3) the date upon which such termination becomes effective; and (4) An opportunity for consultation with the terminating party prior to the effective date of the termination.

80.2 This Contract may be terminated, or the right of the Contractor to complete the Project may be terminated, without liability or damage, when in the OCFA's opinion, the Contractor is not complying with the Contract requirements in good faith, has become insolvent, or has assigned or subcontracted any part of the Work without the OCFA's consent. In the event of such termination, the Contractor will be paid the actual amount due based upon the quantity of work completed at the time of termination, less damages caused to the OCFA by acts of the Contractor causing the termination. The Contractor, in having tendered a bid, shall be deemed to have waived any and all claims for damages because of termination of the Contract or the right of the Contractor to complete the Project for any cause stated in this Section 80.

- 80.3 If termination is effected by the OCFA, an equitable adjustment in the price provided for in this Contract shall be made, but (1) no amount shall be allowed for anticipated profit on unperformed services or other work, and (2) any payment due to the Contractor at the time of termination may be adjusted to cover any additional costs to the OCFA because of the Contractor's default. The equitable adjustment for any termination shall provide for payment to the Contractor for services rendered and expenses incurred in accordance with Section 8 of the California, Department of Transportation Standard Specifications.
- 80.4 After receipt of a Notice of Termination, and except as otherwise directed by the Board of Directors, the Contractor shall:
- (1) Stop work under the Contract Documents on the date and to the extent specified in the Notice of Termination; and
 - (2) Place no further orders or subcontracts for materials, services, or facilities except as may be necessary for completion of such portion of the work under the Contract Documents as is not terminated; and
 - (3) Terminate all orders and subcontracts to the extent that they relate to the performance of work terminated by the Notice of Termination; and
 - (4) Assign to the OCFA, all of the right, title and interests of the Contractor under the orders and subcontracts so terminated, in which case the OCFA shall have the right, in its discretion, to settle or pay any or all claims arising out of the termination of such orders and subcontracts; and
 - (5) Settle all outstanding liabilities and all claims arising out of such termination of orders and subcontracts, subject to the approval of the Board of Directors; and
 - (6) Complete performance of such part of the work as shall not have been terminated by the Notice of Termination; and
 - (7) Deliver or otherwise make available to the OCFA all data, drawings, specifications, reports, estimates, summaries and such other information and materials as may have been accumulated by the Contractor in performing this Contract whether completed or in process; and
 - (8) Take such action as may be necessary, or as the Project Manager may direct, for the protection and preservation of the property related to the Contract Documents which is in the possession of the Contractor and in which the OCFA has, or may acquire, interest.
- 80.5 After receipt of a Notice of Termination, the Contractor shall submit to the Project Manager a verified termination claim. Such claim shall be submitted promptly but in no event later than one year from the effective date of termination, unless one or more extensions in writing are granted by the Board of Directors upon request of the Contractor made in writing within such one-year period or authorized extension thereof.
- 80.6 If any dispute concerning a question of fact arising under the terms of this Contract is not disposed of within a reasonable period of time by Contractor and Project Manager, such matter shall be brought to the attention of the OCFA via written notice of unresolved dispute(s). If agreement cannot be reached after a good faith effort to resolve the dispute, either party may assert its other rights and remedies within this Contract or within a court of competent jurisdiction. The Parties agree that, in the event of a dispute notwithstanding, they will continue without delay to carry out all their responsibilities under this Contract. The Contractor and the OCFA Board of Directors may agree upon the whole or any part of the amount or amounts to be paid to the Contractor by reason of the total or partial termination of work pursuant to this Section 80, which amount or amounts may include a reasonable allowance for profit on work done; provided, that such agreed amount or amounts, exclusive of settlement costs, shall not exceed the total contract price as reduced by the amount of payments otherwise made and as further reduced by the contract price of work not

terminated. The Contract Documents shall be amended accordingly, and the Contractor shall be paid the agreed amount.

81 Patent Infringement

- 81.1 The Contractor shall report to the Project Manager, promptly and in reasonable detail, each notice or claim of patent infringement based on the performance of the Contract Documents of which the Contractor has knowledge.
- 81.2 In the event of any suit against the OCFA, or any claim against the OCFA made before suit has been instituted, on account of any alleged patent infringement arising out of the performance of the obligations under the Contract Documents, or out of the use of any supplies furnished or work or services performed hereunder, the Contractor shall, at Contractor's own expense, furnish to the OCFA, upon request, all evidence and information in possession of the Contractor pertaining to such suit or claim. The Contractor further agrees to indemnify and hold harmless the OCFA against any and all claims or lawsuits based upon such patent infringement, to defend such suits, and to pay any judgment rendered against OCFA, its employees, or the Board of Directors.

82 No Waiver By OCFA

The failure of the OCFA in any one or more instances to insist upon strict performance of any of the terms of the Contract Documents or to exercise any option herein conferred shall not be construed as a waiver or relinquishment to any extent of the right to assert or rely upon any such terms or option on any future occasion.

83 Disputes

- 83.1 In the event of a dispute between the parties as to performance of the work, the interpretation of the Contract Documents, or payment or nonpayment for work performed, the parties shall attempt to resolve the dispute. Pending resolution of the dispute, the Contractor shall continue the work diligently to completion as directed by Project Manager. If the dispute is not resolved, the Contractor agrees Contractor will neither rescind the Contract Documents nor stop the progress of the work.
- 83.2 With respect to any "claim" as that term is defined in Public Contract Code section 9204, Contractor shall submit such claim in accordance with Section 91 hereinbelow.

84 Attorneys' Fees

If any action at law or in equity is necessary to enforce or interpret the terms of this Contract, each party shall be responsible for their respective costs, including attorneys' fees. The prevailing party shall not be entitled to recover its attorneys' fees or related costs. Nevertheless, if any action is brought against the Contractor or any Subcontractor to enforce a Stop Notice or Notice to Withhold, which names the OCFA as a party to said action, the OCFA shall be entitled to reasonable attorneys' fees, costs and necessary disbursements arising out of the defense of such action by the OCFA. The OCFA shall be entitled to deduct its costs for any Stop Notice filed, whether court action is involved or not.

85 Contractor's Employees' Compensation

- 85.1 General Prevailing Rate: OCFA has been advised by the State of California Director of Industrial Relations of the Director's of the general prevailing rate of per diem wages and the general prevailing rate for legal holiday and overtime work in the locality in which the work is to be performed for each craft or type of work needed to execute this Contract, and copies of the same are on file in the Office of the Engineer of OCFA. The Contractor agrees that not

less than said prevailing rates shall be paid to workers employed on this public works contract as required by Labor Code Section 1774 of the State of California.

- 85.2 Forfeiture For Violation: Contractor shall, as a penalty to the OCFA, forfeit Fifty Dollars (\$50.00) for each calendar day or portion thereof for each worker paid (either by the Contractor or any subcontractor under it) less than the prevailing rate of per diem wages as set by the Director of Industrial Relations, in accordance with Sections 1770-1780 of the California Labor Code for the work provided for in this Contract, all in accordance with Section 1775 of the Labor Code of the State of California.
- 85.3 Apprentices: Sections 1777.5, 1777.6 and 1777.7 of the Labor Code of the State of California, regarding the employment of apprentices is applicable to this Contract and the contractor shall comply therewith if the prime contract involves Thirty Thousand Dollars [\$30,000.00] or more or twenty (20) working days, or more; or if contracts of specialty contractors not bidding for work through the general or prime contractor are Two Thousand Dollars [\$2,000.00] or more or Five (5) working days or more. Information relative to apprenticeship standards, contributions, wage schedules and other requirements may be obtained from the State Director of Industrial Relations or from the Division of Apprenticeship Standards.
- 85.4 Workday: In the performance of this Contract, not more than eight (8) hours shall constitute a day's work, and Contractor shall not require more than eight (8) hours of labor in a day from any person employed by him hereunder except as provided in Section 11.4.2 above. Contractor shall conform to Article 3, Chapter 1, Part 7 (Sections 1810 et seq.) of the Labor Code of the State of California and shall forfeit to the OCFA as a penalty, the sum of twenty-five Dollars (\$25.00) for each worker employed in the execution of this Contract by Contractor or any Subcontractor for each calendar day during which any worker is required or permitted to labor more than eight (8) hours in any one calendar day and forty (40) hours in any one week in violation of said Article. Contractor shall keep an accurate record showing the name and actual hours worked each calendar day and each calendar week by each worker employed by Contractor in connection with the Project.
- 85.5 Record of Wages; Inspection: The Contractor and each subcontractor performing any portion of the work under the Contract Documents shall keep an accurate record, showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by Contractor in connection with the work. Said payroll records shall be certified and shall be available for inspection at the principal office of the Contractor on the basis set forth in Labor Code Section 1776. The Contractor shall file a certified copy of said payroll records with the OCFA within ten days after receipt of a written request therefor from Project Manager or otherwise from the OCFA. The Contractor shall inform the OCFA of the location of said payroll records, including the street address, City and State, and shall, within five working days, provide a notice of change of location and address of said payroll records. It shall be the responsibility of the Contractor to ensure the compliance with the provisions of this Section 85 and the provisions of Labor Code Section 1776. In the event of noncompliance with the requirements of this Section or the requirements of Labor Code Section 1776, the Contractor shall have ten days in which to comply subsequent to receipt of written notice specifying in what respects Contractor must comply. Should noncompliance exist after said ten-day period, the Contractor shall, as a penalty to the OCFA, forfeit Twenty-five Dollars (\$25) for each calendar day, or portion thereof, for each worker to whom the noncompliance pertains until strict compliance is effectuated. The Contractor acknowledges that, without limitation as to other remedies of enforcement available to the OCFA, upon the request of the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement of the California Department of Industrial Relations, such penalties shall be withheld from progress payments then due the Contractor.

85.6 Pursuant to California Labor Code Section 1771.4, Contractor's services are subject to compliance monitoring and enforcement by the Department of Industrial Relations. Contractor shall post job site notices as prescribed by DIR regulations and furnish the records specified in California Labor Code Section 1776 directly to the Labor Commissioner in the manner prescribed by California Labor Code Section 1771.4(a)(3) and (c)(2).

86 SAFETY & HEALTH

86.1 The General Contractor (the Contractor) shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. The Contractor shall take all precautions and follow all procedures for the safety of, and shall provide all protection to prevent injury to, all persons involved in any way in the Work and all other persons, including, without limitation, the employees, agents, guests, visitors, invitees and licensees of OCFA who may be involved. These precautions shall include, but in no event be limited to the:

- (1) Provisions of Local, State and Federal Regulations.
- (2) Posting of danger signs and personal notification to all affected persons of the existence of a hazard, of whatever nature.
- (3) Furnishing and maintaining of necessary traffic control barricades and flagman services.
- (4) Use or storage of required explosives or other hazardous materials only under the supervision of qualified personnel.
- (5) Maintenance of adequate quantities of operable fire protection equipment at the Work Site, as required by Local and /or State regulations.

86.2 The Contractor shall set forth in writing its site specific safety precautions and programs in connection with the Work, including an Anti-Substance Abuse Program which meets or exceeds any and all applicable laws, ordinances, rules, regulations, and orders of any public, quasi-public, or other authority relating to the safety of persons and their protection against injury, specifically including, but in no event limited to the:

- (1) California Occupational Safety and Health Act of 1973, as amended, and rules and regulations now or hereafter in effect pursuant to said Act.
- (2) California Code of Regulations, Title 8, as amended.
- (3) The Labor Code of the State of California, as amended.
- (4) Federal Occupational Safety and Health Act of 1970, as amended, and all rules and regulations now or hereafter in effect pursuant to said Act.
- (5) Code of Federal Regulations, Title 29, as amended.
- (6) The Drug-Free Workplace Act of 1988.
- (7) In the event of conflicting requirements, the more stringent shall govern and if requested by OCFA, submit the same to OCFA for review. OCFA may, but shall not be obligated to, make suggestions and recommendations to the Contractor. OCFA shall review and approve the Contractor's Site Specific Program.

86.3 All work, whether performed by the Contractor or its Subcontractors, of all tiers or anyone directly or indirectly employed by any of them, and all equipment, machinery, materials, tools and like items incorporated or used in the Work, shall be compliance with and conform to:

- (1) All applicable laws, ordinances, rules, regulations, and orders of any public, quasi-public, or other authority relating to the safety of persons and their protection against injury, specifically including, but in no event limited to, the Federal Occupational Safety and Health Act of 1970, as amended, and all rules and regulations now or hereafter in effect pursuant to said Act, and California Code of Regulations, Title 8, as amended; and,

- (2) All codes, rules, regulations and requirements of OCFA and its insurance carriers relating thereto. In the event of conflicting requirements, the more stringent shall govern.
- 86.4 The Contractor shall designate a responsible and qualified member of its organization at the Work Site who has the authority to enforce the Contractor's Safety and Anti-Substance Abuse Programs, to assure compliance with Paragraph 10.1 and to prevent accidents.
- 86.5 The Contractor shall have a safety representative. The Contractor's safety representative will have:
- (1) The authority to stop work when safety problems are identified.
 - (2) The authority to implement corrective actions.
 - (3) Extensive training in safety and loss control practices regarding the Contractor's type of work.
 - (4) Certification in the OSHA Construction Outreach 10/30 Hour Program.
 - (5) Certification in first aid and CPR.
- 86.6 The Contractor shall require its Subcontractors of all tiers to designate a competent and responsible safety representative to assist the Contractor's representative in the performance of his or her duties.
- 86.7 Should the Contractor fail to provide a safe work environment in accordance with the provisions in 10.1.1, OCFA or Project Manager shall have the right, but not the obligation, to suspend Work in the unsafe area, as specified in 10.6. All costs of any nature resulting from the suspension, by whomsoever incurred, shall be paid by the Contractor.
- 86.8 After a Contractor has been awarded the construction contract for the Project, it will be required to attend a pre-construction safety meeting. The purpose of the meeting is to review the Project's Safety Program and requirements. At this time, specific safety concerns related to the Contractor's work will be discussed.
- 86.9 If deemed necessary by the Project Manager or Project Safety Coordinator, or other OCFA representative, a written Job Safety Analysis (JSA) will be required of the Contractor. The JSA will be required for frequency and severity exposures such as steel erection, deep excavations, spray painting, crane handling of large/expensive equipment, etc. This is to ensure that appropriate controls are established prior to work beginning.
- 86.10 Workplace violence (Type III), verbal intimidation or threats to the Project Manager, OCFA or designee will result in immediate removal from the Project. Contractor shall develop and implement a workplace violence policy and procedure.
- 86.11 The Contractor shall provide, or cause to be provided, each worker on the Site the proper safety equipment for the duties being performed by that worker and will not permit any worker on the Site who fails or refuses to use the same. OCFA and/or Project Manager shall have the right, but not the obligation, to order the Contractor to send a worker off the Site for the day or to require the contractor to not allow the worker any further work on OCFA's site for his or her failure to comply with safety practices, with which order the Contractor shall promptly comply.
- 86.12 **Safety Indemnification.** The Contractor shall defend, indemnify, and hold the Project Manager, OCFA, and their respective officers, directors, agents, employees, and assigns harmless from and against any and all liability, public or private, penalties, contractual or otherwise, losses, damages, costs, attorneys' fees, expenses, causes of action, claims or judgments resulting either in whole or in part from any failure of the Contractor, or its

Subcontractors, of all tiers or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, to comply with provisions of the Project Manual, including but not limited to all applicable laws, ordinances, rules, regulations, and orders of any public, quasi-public, or other authority relating to the safety of persons and their protection against injury, specifically including, but in no event limited to, all Cal/OSHA laws and regulations and the Federal Occupational Safety and Health Act of 1970, as amended, and all rules and regulations now or hereafter in effect pursuant to thereto. The Contractor shall not be relieved of its responsibilities under this Subsection should OCFA act or fail to act pursuant to its rights hereunder, nor shall OCFA thereby assume, nor be deemed to have assumed, any responsibilities otherwise imposed on the Contractor by this Contract, by virtue of providing OCFA's Safety Policies & Procedures, or any other manner whatsoever.

86.12.1 The Contractor shall not raise a defense as to its obligation to indemnify under Subsection 86.12 above any contributing negligence of any of those indemnified hereunder, its being understood and agreed that no such contributing negligence shall relieve the Contractor from its liability to so indemnify nor entitle the Contractor to any contribution, either directly or indirectly, by those indemnified hereunder.

86.12.2 In any and all claims against those indemnified hereunder by any employee of the Contractor or its Subcontractors of all tiers, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the indemnification obligation under this Section 86.12 shall not be limited in any way to any limit on the amount or type of damage, compensation or benefits payable by or for the Contractor or its Subcontractors of any tiers under any Worker's Compensation Acts, Disability Benefit Acts or other Employee Benefit Acts.

86.13 In connection with the performance of this contract, OCFA shall have the authority to enter the worksite at any time for the purpose of identifying the existence of conditions, either actual or threatened, that may present a danger or hazard to any or all employees. Contractor agrees that OCFA, in its sole authority and discretion, may order the immediate abatement of any and all conditions that may present an actual or threatened danger or hazard to any and all employees at the worksite. Contractor acknowledges that provisions of Section 6400 of the California Labor Code, which requires that employers shall furnish employment and a place of employment that is safe and healthful for all employees working therein. In the event OCFA identifies the existence of any condition that presents an actual or threatened danger or hazard to any or all employees at the worksite, OCFA is hereby authorized to order the immediate abatement of that actual or threatened condition pursuant to this Section. OCFA may also, at its sole authority and discretion, issue an immediate stop work order to Contractor to ensure that no employee working at the worksite is exposed to a dangerous or hazardous condition. Any stop work order issued by OCFA to Contractor in accordance with the provisions of this Section, shall not give rise to any claim or cause of action for delay damages by Contractor or Contractor's agents or subcontractors against OCFA.

87 Non-Discrimination

87.1 Contractor covenants that, by and for itself, successors, and assigns, including its Subcontractors and suppliers, that there shall be no discrimination against or segregation of, any person or group of persons on account of race, color, creed, religion, gender, marital status, national origin, sexual orientation, or ancestry in the performance of this Contract. Contractor shall take steps to ensure that applicants for any job and that employees are treated without regard to their race, color, creed, religion, gender, marital status, national origin, sexual orientation, or ancestry in full compliance with applicable federal, state, and local laws and regulations.

- 87.2 Contractor shall not engage in, nor permit its agents, including its Subcontractors and suppliers, to engage in discrimination in employment of persons or provision of services or supplies, on the grounds of race, color, creed, religion, gender, marital status, national origin, sexual orientation, or ancestry.
- 87.3 Contractor, and Contractor's Subcontractors and suppliers, shall employ fair employment practices with regard to all employees and all applicants for employment and shall act in accordance with all applicable federal, state, and local laws and regulations relating to such fair employment practices. In furtherance of such obligation, Contractor agrees that Contractor, Subcontractors, and suppliers shall not discriminate in employment and/or provision of services under this Contract and all employment practices shall be without regard to a person's race, color, creed, religion, gender, national origin, age, ancestry, physical handicap, medical condition, marital status, all in accordance with applicable federal, state, and local laws or regulations. Fair employment practices shall include, but not be limited to, employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rate of pay or other form of compensation and selection for training including apprenticeship.
- 87.4 In the performance of the terms of the Contract Documents, Contractor agrees that Contractor will not engage in nor permit such subcontractors as Contractor may employ to engage in discrimination against any employee or applicant for employment on the basis of race, sex, color, religion, ancestry, national origin, marital status, age or as an otherwise qualified handicapped individual. This prohibition shall pertain to employment, upgrading, demotion, or transfer, recruitment advertising, layoff or termination, rates of pay and other forms of compensation, selection for training, including apprenticeship, and any other action or inaction pertaining to employment matters.

88 Assignment of Antitrust Actions

In accordance with Public Contract Code Section 7103.5, by entering into the Contract Documents or into a subcontract to supply goods, services, or materials pursuant to the Contract Documents, the Contractor, or subcontractor, offers and agrees to assign to the OCFA all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Chapter 2 [commencing with Section 16700] of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services, or materials pursuant to the Contract Documents or the subcontract. This assignment shall be made and become effective at the time the OCFA tenders final payment to the Contractor, without further acknowledgment by the parties. The contractor shall cause to be inserted in any such subcontract stipulations to effectuate this Section 88 and the provision of Public Contract Code Section 7103.5.

89 Time of Commencement; Time Is of the Essence

- 89.1 **Commencement:** Contractor agrees to commence the Project within ten (10) calendar days from the date the OCFA's Board approves this Contract, and Contractor shall diligently prosecute the work to Substantial Completion of the Milestones as identified in the Contractor's Construction Schedule and Substantial Completion of the Project no later than the Scheduled Completion Date, excluding modifications for delays caused or authorized by the OCFA as set forth in Section 71.5.
- 89.2 **Construction Schedule:** Within 30 days of the Award of the Contract, Contractor shall furnish to the Project Manager one reproducible, three prints, and an electronic or digital copy in a format approved by the Project Manager of the Contractor's Construction Schedule. The schedule shall be supported by written statements from each supplier of materials or equipment indicating that all orders have been placed and acknowledged, and setting forth

the dates that each item will be delivered. The schedule shall establish the order of work which minimizes disruption of existing travel lanes. Upon submission by Contractor, and approval by the Project Manager, the Contractor's Construction Schedule shall be attached to Project Manual as an Exhibit and shall be deemed the baseline schedule. The Contractor's Construction Schedule shall identify and specify scheduling for the Work based on the critical path method (or other scheduling method acceptable to the Project Manager) and updating thereof, and shall provide other schedules that would further the efficient completion of the Project, including the Work and the Related Work in the most expeditious and economical manner. The Contractor's Construction Schedule shall depict in detail the sequence and timing of all activities of the Work and Related Work, including, without limitation, commencement and Completion Dates of Milestones and for all other significant portions of the Work and Related Work. The Contractor's Construction Schedule shall be updated at least monthly, except that the Scheduled Completion Date shall not be changed or modified unless otherwise approved by the Project Manager pursuant to the terms of this Contract.

89.3 Progress Reports: Concurrently with its submission of Applications for Payment, Contractor shall provide the Project Manager with a report (1) detailing the actual progress of the Work and Related Work as of the date of such report; (2) stating any discrepancies between the actual progress of the Work and Related Work; (3) identifying the progress anticipated by the Contractor's Construction Schedule as of the date of such reports; and (4) stating a recovery schedule to place the Work and Related Work back on schedule, at no cost to the OCFA. The Contractor's Construction Schedule shall include Milestones for each aspect of the Work and the timing for completion of Related Work that could affect completion of the Work by the date listed in the Contractor's Construction Schedule.

89.4 Acceleration.

89.4.1 The OCFA reserves the right to accelerate the work of the Contract at any time during its performance. In the event the OCFA directs acceleration, such directive will be given to the Contractor in writing. The Contractor shall keep cost and other Project records related to the acceleration directive separately from the normal Project cost records and shall provide a written record of acceleration costs to the OCFA on a daily basis.

89.4.2 In the event the Contractor believes that some action or inaction on the part of the OCFA constitutes an acceleration directive, the Contractor shall immediately notify the OCFA in writing that the Contractor considers the actions or inactions an acceleration directive. The Contractor shall not accelerate their work efforts until the OCFA responds to the written notification. If acceleration is then directed or required by the OCFA, all cost records referred to in the previous paragraph shall be maintained by the Contractor and provided to the OCFA on a daily basis.

89.4.3 In order to recover additional costs due to acceleration, the Contractor must document that additional expenses were incurred and paid by the Contractor. Labor costs recoverable will only be overtime or shift premium costs or the cost of additional laborers brought to the site to accomplish the accelerated work effort. Equipment costs recoverable will only be the cost of added equipment mobilized to the site to accomplish the accelerated work effort.

89.5 TIME IS THE ESSENCE OF THIS CONTRACT: NOTWITHSTANDING OCFA'S APPROVAL OF ANY UPDATED CONTRACTOR'S CONSTRUCTION SCHEDULE, THE SCHEDULED COMPLETION DATE SHALL BE STRICTLY ADHERED TO DURING THE TERM OF THIS

CONTRACT. THE SCHEDULED COMPLETION DATE MAY ONLY BE CHANGED AS PROVIDED IN THE CONSTRUCTION CONTRACT.

- 89.6 **Ongoing Responsibility of Contractor:** As required by the Project Manual, Contractor shall prepare and obtain approval of all shop drawings, submittals, details, and samples, and do all other things necessary and incidental to the prosecution of Contractor's work in conformance with the Project Manual and Contractor's Construction Schedule. Contractor shall coordinate the Work with the Related Work through the Project Manager, in a manner that will facilitate the efficient completion of the Project in accordance with the Project Manual.
- 89.7 **Control of the Site and Order of Work:** Contractor shall have control of the Site and shall have the right to decide the time or order in which the various portions of the work shall be constructed or installed consistent with the Contractor's Construction Schedule and shall establish the priority of the work of Subcontractors of the Work and the Related Work, and, in general, all matters representing the timely and orderly completion of the Project.
- 89.8 **Cooperation:** Notwithstanding the Scheduled Completion Date, Contractor will cooperate with the OCFA and the OCFA's separate Contractors, consultants, and employees and Contractor agrees to provide for and coordinate access to the Project prior to the Scheduled Completion Date.
- 89.9 **Contractor's Risk Of Non-Performance:** IT IS SPECIFICALLY AGREED THAT CONTRACTOR ASSUMES THE RISK OF NONPERFORMANCE, LATE PERFORMANCE, AND NONCOMPLIANCE WITH THE REQUIREMENTS OF THE PROJECT MANUAL BY CONTRACTOR, CONTRACTOR'S SUBCONTRACTORS, SUPPLIERS, AND AGENTS. CONTRACTOR SHALL NOT BE ENTITLED TO AN EXTENSION OF ANY COMPLETION DATE OF THE SCHEDULED COMPLETION DATE FOR THE ABOVE STATED REASONS OR ANY OTHER REASONS, EXCEPT AS OTHERWISE EXPRESSLY PROVIDED IN THE PROJECT MANUAL.
- 89.10 **Notification of Inability to Comply:** If the Contractor, at any time, ascertains that for any reason it is unable to complete the phases of the Work by the Milestones, or complete the Project by the Scheduled Completion Date, Contractor shall promptly and without delay notify the Project Manager in writing of this fact.
- 89.11 **Liquidated Damages:** The Parties acknowledge and agree that if Contractor fails to achieve Substantial Completion of the Project by the Scheduled Completion Date or fails to achieve Substantial Completion of a Milestone, as such dates may be extended in accordance with the Project Manual, OCFA will suffer, as a result of Contractor's failure, substantial damages which are both extremely difficult and impracticable to ascertain. Therefore the Parties having reasonably endeavored, but failed, to ascertain an amount bearing a reasonable relationship to the actual damage that OCFA will incur if Contractor fails to achieve Substantial Completion of the Project by the Scheduled Completion Date or fails to achieve completion of a Milestone as such dates may be extended in accordance with the Project Manual, agree that in addition to all other damages to which OCFA may be entitled, Contractor agrees to pay to OCFA as liquidated damages, and not as a penalty but as a reasonable estimate of the amount of damages OCFA will suffer, the amount of Five Hundred Dollars (\$500.00) per day for each calendar day occurring after the completion date of a Milestone during which Contractor fails to achieve Substantial Completion for each such Milestone. In addition, the OCFA shall have the right to charge to the Contractor and to deduct from payments for the Work the actual cost to the OCFA of engineering, inspection, superintendence, and other overhead expenses, which are directly chargeable to the Contract and which accrue during the period of such delay. The expenses and damages described above shall be deducted

from any money due the Contractor under this contract. The Contractor and its sureties shall be liable for any excess cost.

89.12 **Additional Remedies:** The Parties also acknowledge and agree that OCFA is entitled to any and all legal and equitable remedies OCFA may have that exceed the amount of Liquidated Damages.

90 **Audit And Access To Records**

- 90.1 Contractor shall maintain all books, records, documents, and other evidence directly pertinent to the performance of the work under this Contract in accordance with generally accepted accounting principles and practices consistently applied. Contractor shall also maintain all financial information and data used by the Contractor in the preparation or support of any cost submission, including the Contractor's original bid required for this Contract, or any Change Order, claim, or other request for any adjustment, and a copy of the cost summary or information submitted to the OCFA. The Project Manager or the Fire Chief shall have access upon twenty-four hours advanced written notice, at all times during normal business hours, to all such books, records, documents, financial information, and all other evidence for the purpose of inspection, audit, and copying. The Contractor shall, at no cost to the OCFA, provide proper facilities for such access, inspection, and copying purposes.
- 90.2 The Parties agree that the provisions of this Section 90 are applicable to Project Manual and all Change Orders, claims, and any other request for adjustment affecting the time or price of this Contract. The Contractor agrees to include the provisions of this Section in all Subcontracts and purchase orders, at any tier, and make this Section 90 applicable to all Change Orders, claims, and other requests for adjustment related to Project performance by Contractor's Subcontractors and suppliers.
- 90.3 Audits conducted under this Section shall be in accordance with generally accepted auditing standards and established procedures and guidelines.
- 90.4 The Contractor agrees to the disclosure of all information and reports resulting from access to records under the provisions of this Section to the OCFA, the Fire Chief, the Project Manager, and any affected or interested state or local agency.
- 90.5 Records under the provisions of this Section shall be maintained and made available during the performance of the Work under this Contract until three years past final payment and until final settlement of all disputes, claims, or litigation, whichever occurs later. In addition, those records which relate to any portion of this Contract to any Change Order, dispute, litigation, settlement of any claim arising out of such performance, or to the cost of items to which an audit exception has been taken, shall be maintained and made available until final payment or final resolution of such dispute, litigation, claim, or exception, whichever occurs later.
- 90.6 These rights to access provisions as provided in this Section apply to all financial records pertaining to this Contract and all Change Orders and claims. In addition, this right to access applies to all records pertaining to all contracts, Change Orders, and any amendments to this Contract: (1) To the extent the records pertain directly to Contract performance; (2) If there is any indication that fraud, gross abuse, or corrupt practices may be involved; or (3) If the Contract is terminated for default or convenience.
- 90.7 Access to records is not limited to the required retention periods. The Fire Chief shall have access to records at any reasonable time for as long as the records are maintained.

91 Resolution Of Construction Claims

- 91.1 California Public Contract Code (PCC) section 9204 as adopted by Assembly Bill 626 prescribes a process to present, confer, and mediate construction claims relating to the OCFA's public works project. Notwithstanding any provisions to the contrary in the Project Manual, this section shall govern all disputes to which section 9204 applies.
- 91.2 For purposes of this Section 91, "Claim" means a separate demand by the Contractor sent by registered mail or certified mail with return receipt requested for (A) a time extension, including, without limitation for relief from damages or penalties for delay assessed by a public entity under a contract for a public works project (B) payment of money or damages arising from work done by or on behalf of the Contractor pursuant to the contract for a public works project and payment for which is not otherwise expressly provided or to which the claimant is not otherwise entitled, or the amount the payment of which is disputed by the local agency. (PCC 9204(c)(1))
- 91.3 For purposes of this Section 91, "Public works project" means the erection, construction, alteration, repair, or improvement of any public structure, building, road, or another public improvement of any kind.
- 91.4 For any Claim subject to this Section 91, California Public Contract Code section 9204 requires the following:
- 91.4.1 The claim shall be submitted by the Contractor in writing, sent by registered mail or certified mail with return receipt requested and must include the documents necessary to substantiate the claim. Nothing in this subdivision is intended to extend the time limit or supersede notice requirements otherwise provided by contract for the filing of claims. However, upon receipt of a claim, the OCFA, and the Contractor may, by mutual agreement, extend the time period provided by statute.
- 91.4.2 For claims of all amounts, the OCFA shall respond within 45 days of receipt of the claim, and provide the claimant a written statement identifying which portion of the claim is disputed and which portion of the claim is undisputed. If the OCFA requires approval from the Board of Directors, and the Board of Directors does not meet within the 45-day period to respond, the OCFA shall have up to three days to issue its response following the Board of Directors meeting.
- 91.4.3 For all portions of a claim determined to be undisputed, the OCFA must process payment to the claimant within 60 days of issuing the OCFA's written determination.
- 91.4.4 If the claimant disputes the OCFA's response, or if the OCFA fails to respond within the time limits provided, the claimant may demand an informal conference to meet and confer for settlement of the issues in dispute. The demand must be sent in writing by registered or certified mail, return receipt requested. Upon receipt of a demand, the OCFA must schedule a meet and confer conference within 30 calendar days for settlement of the disputed claim.
- 91.4.5 Within ten (10) business days following the conclusion of the meet and confer conference, if any portion of the claim remains in dispute, the OCFA shall provide the claimant an addition written statement identifying the portion of the claim that is undisputed and the portion that remains in dispute.

- 91.4.6 For all portions of a claim determined to be undisputed, the OCFA must process payment to the claimant within 60 calendar days of issuing the OCFA's written determination.
- 91.4.7 Any remaining undisputed portion of the claim, as identified by the Contractor in writing, shall be submitted to nonbinding mediation in which the parties share the cost evenly. The OCFA and the claimant shall mutually agree on a mediator within ten (10) business days after the disputed portion of the claim has been identified in writing. If the parties cannot agree, each party shall select a mediator and those mediators shall jointly select a qualified, neutral third party to mediate the remaining undisputed claim. Each party shall bear the respective costs charged by its respective mediator in connection with the selection of the neutral mediator. If mediation is unsuccessful, the parts of the claim remaining in dispute shall be subject to applicable procedures outside of PCC section 9204.
- 91.4.8 Unless otherwise agreed to by the OCFA and the Contractor in writing, the mediation conducted pursuant to this Section 91 shall excuse any further obligation under PCC Section 20104.4 to mediate after litigation has been commenced.
- 91.4.9 Public Contract Code Section 9204 does not preclude the OCFA from requiring arbitration of disputes under private arbitration or the Public Works Contract Arbitration Program if mediation under this section does not resolve the parties' dispute.
- 91.4.10 Should the OCFA fail to respond to a claim, or fail to issue written statements as required, the Contractor's claim is deemed denied. A claim denied by reason of the OCFA's failure to respond shall not constitute an adverse finding with regard to the merits of the claim or the responsibility or qualifications of the claimant.
- 91.4.11 Amounts not paid in a timely manner as required by PCC 9204 shall bear interest at seven percent per annum.

92 Notice Of Third-Party Claims

When required by PCC Section 9201, the OCFA will provide timely notification to Contractor of the receipt of any third-party claim relating to the Agreement. The Contractor agrees to reimburse the OCFA for its reasonable costs incurred in providing such notice.

93 Cleanup

- 93.1 The Contractor shall at all times keep the Site clean and free from accumulation of waste materials or rubbish (including, without limitation, hazardous waste), caused by his performance of the Work, and shall continuously throughout performance of the Work remove and dispose of all such materials from the Site and the Project.
- 93.2 Project Manager may require the Contractor to comply with such standards, means and methods of cleanup, removal or disposal as Project Manager may make known to the Contractor. In event the Contractor fails to keep the Site clean and free from such waste or rubbish, or to comply with such standards, means and methods, OCFA may take such action and offset any and all costs or expenses of whatever nature paid or incurred by OCFA in undertaking such action against any sums then or thereafter due to the Contractor.
- 93.3 The Contractor shall notify OCFA in advance of the generation, importation, storage, transportation or disposal, of any hazardous waste, toxic materials or contaminants of any type in connection with the Project. Contractor shall provide Project Manager with Material

Safety Data Sheets (MSDS's) and the Uniform Hazardous Waste documents. The Contractor will develop and implement a written and effective Spill Control and Containment Plan.

94 Trenches and Excavations

- 94.1 The Contractor shall promptly, and before any of the following conditions are disturbed, notify the Project Manager, in writing, of any:
- (1) Material that the Contractor believes may be material that is hazardous waste, as defined in Section 25117 of the Health and Safety Code, that is required to be removed to a Class 1, Class II, or Class III disposal site in accordance with the provisions of existing law; or
 - (2) Subsurface of latent physical conditions at the Site differing from those indicated; or
 - (3) Unknown physical conditions at the Site of unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract and Project Manual.
- 94.2 The Project Manager shall promptly investigate the conditions, and if the Project Manager finds that the conditions materially so differ, or do involve hazardous waste, and cause an increase or decrease in the Contractor's cost of, or the time required for, performance of any part of the work shall issue a change order, subject to the provisions of the Project Manual.
- 94.3 In the event that a dispute arises between the Project Manager and the Contractor whether the conditions materially differ, or involve hazardous waste, or cause a decrease or increase in the Contractor's cost of, or time required for, performance of any part of the Work, the Contractor shall not be excused from any Scheduled Completion Date provided for in the Contract, but shall proceed with all work to be performed under the Contract. The Contractor shall retain any and all rights provided either by the Contract or by law which pertain to the resolution of disputes and protests between parties.

95 Uncovering and Correction of Work; OCFA's Right To Carry Out Work

- 95.1 If any portion of the Work should be covered contrary to the instructions or request of Project Manager or the requirements of the Project Manual, the Contractor shall, if required by Project Manager, uncover such portion of the Work for Project Manager's observation and shall replace such Work all at the Contractor's expense.
- 95.2 If any portion of the Work should be covered prior to a specific request for observation or instruction by Project Manager, Project Manager may request to see such Work, and it shall be uncovered by the Contractor. If such Work is found to be in accordance with the Project Manual and without defect, the cost of uncovering and replacement shall, by appropriate Change Order, be charged to OCFA. If such Work is found to be defective or not in accordance with the Project Manual, the Contractor shall bear such costs.
- 95.3 Project Manager shall have the authority to reject any portion of the Work which is defective or does not conform to the Project Manual, and the Contractor shall promptly correct all Work so rejected by Project Manager, whether observed before or after the Date of Substantial Completion and whether or not fabricated, installed or completed. In order that such corrective Work shall not interrupt or delay Contractor's Construction Schedule or the completion date of the Project, the Contractor shall perform such Work according to a schedule therefor established by Project Manager (which may provide that the same be performed on overtime, shiftwork, Saturdays, Sundays and/or holidays), utilizing in the performance thereof such manpower as is necessary to complete the corrective Work in accordance with said schedule. The Contractor shall bear all costs of correcting such rejected

Work including, without limitation, compensation for any additional architectural and engineering services made necessary thereby.

- 95.4 If, within one (1) year after the Completion of the Work (as determined by OCFA) or within such longer period of time as may be prescribed by law or by the terms of any applicable warranty or guarantee required by the Project Manual, any of the Work is found to be defective or not in accordance with the Project Manual, the Contractor shall correct it promptly after receipt of written instructions to that effect from OCFA unless OCFA has previously given the Contractor a written acceptance of such condition.
- 95.5 The Contractor shall remove from the Site all Work which is defective or non-conforming and not corrected under the provisions of these General Conditions unless removal is waived in writing by OCFA.
- 95.6 If the Contractor does not remove such uncorrected defective or non-conforming Work within a reasonable time fixed by written instructions to that effect from Project Manager, OCFA may remove it and store the materials and equipment at the expense of the Contractor. If the Contractor does not pay the cost of such removal and storage within ten (10) days thereafter, OCFA may, upon ten (10) additional days written notification to the Contractor, sell such materials and equipment at public or private sale and account to the Contractor for the net proceeds thereof, after deducting all the costs that should have been borne by the Contractor, including compensation for any additional architectural and engineering services and attorneys' fees made necessary thereby. If such proceeds of sale do not cover all costs which the Contractor should have borne, the difference shall be offset against any amounts then or thereafter due to the Contractor. If the amounts then or thereafter due to the Contractor are not sufficient to cover such difference, the Contractor shall, upon demand, pay the same to OCFA. The obligations of the Contractor under this Subsection shall be in addition to, and not in limitation of, any obligations imposed on it by law, by any other provision of this Contract or by any warranty or guarantee under this Contract.
- 95.7 If the Contractor fails to correct any defective or non-conforming Work, OCFA may correct it with its own forces or by contract with a third party contractor. In the event of a defect found after final acceptance of the Work by OCFA which the Contractor is obligated to correct pursuant to Project Manual, OCFA may, at its option, after giving the Contractor an opportunity to correct such defect, cause such corrective Work to be performed by others and charge the Contractor with the cost thereof. Such charge shall be due and payable by the Contractor upon demand.
- 95.8 If the Contractor defaults or neglects to carry out the Work in accordance with the Project Manual or fails to perform any provision of this Contract, and such default, neglect or non-performance shall continue for a period of 48 hours after written notification thereof from OCFA (or if such default, neglect or non-performance cannot be reasonably remedied within such 48-hour period, and Contractor does not (in the sole determination of OCFA) undertake in good faith the remedy of the same within said period and thereafter proceed diligently to completion), then OCFA may, without prejudice to any other remedy OCFA may have, make good such deficiencies; provided, however, that in the event of an emergency, as determined by OCFA, no notification shall be required. OCFA shall have the right to take possession of such portion of the Site as will enable it to make good such deficiencies and, in connection therewith, to utilize the materials, equipment, tools, construction equipment and machinery of the Contractor located on the Site. If OCFA makes good any such deficiencies, the costs of correcting the same including, without limitation, compensation for additional architectural and engineering services made necessary by such default, neglect or non-performance, shall be offset against any amounts then or thereafter due to the Contractor. If the amounts then

or thereafter due to the Contractor are not sufficient to cover such costs, then the Contractor shall, upon demand, pay the difference to OCFA.

- 95.9 If OCFA prefers to accept defective or non-conforming Work, it may do so instead of requiring its removal and correction, in which case an appropriate amount shall be offset against any amounts then or thereafter due to the Contractor; or, if the said appropriate amount of offset is determined after final payment (or if there is not then or thereafter due to the Contractor an amount sufficient to cover the offset available to OCFA), the Contractor shall, upon demand, pay the appropriate amount (or the difference after offset, as applicable) to OCFA.

96 Plans, Specifications and Survey

The Contractor shall maintain a control set of Plans, Specifications and survey on the Project site at all times. All final locations determined in the field by survey, and any deviations from the Plans and Specifications, shall be marked in red on this control set to show the as-constructed conditions. Upon completion of all work, the Contractor shall return the control set to the Engineer. Final payment will not be made until this requirement has been met.

97 Permits

OCFA will reimburse the Contractor for the public agency-charged fee for permits, inspections. No profit amount shall be added to such reimbursement.

98 Compliance with Laws; Non-Discrimination

Contractor shall ensure that its officers, employees, agents, contractors, and subcontractors: (1) conduct themselves in compliance with all applicable laws and licensure requirements including, without limitation, compliance with laws applicable to nondiscrimination, harassment, and ethical behavior, throughout the duration of the Contract; and (2) comply with all OCFA, State, and Federal, Local Agency and Regulatory Agency orders regarding affirmative action to ensure equal employment opportunities and fair employment practices. Failure to file any report due under said orders will result in suspension of periodic progress payments. The Contractor shall ensure unlimited access to the job site for all equal employment opportunity compliance officers.

99 Right-Of-Way And Easements

In the event any required easements have not yet been acquired by the OCFA, the Contractor shall conduct its operation so as to confine its work to the limits of the existing right-of-way.

100 Disputed Work

Contractor shall keep all records of disputed work in accordance with the General Conditions. In any case where the Contractor believes extra compensation is due the Contractor for work or materials not clearly covered in the Contract, or not ordered by the OCFA as "extra work", the Contractor shall notify the OCFA in writing of the Contractor's intention to make claim for such extra compensation before the Contractor begins the work on which Contractor bases the claim. All "claims" as that term is defined in Public Contract Code section 9204 shall be submitted and processed in accordance with Section 91 hereinabove. Such notice by the Contractor, and the fact that the OCFA has kept account of the cost as aforesaid, shall not in any way be construed as proving the validity of the claim. The validity of the claim must be determined by the OCFA. If the OCFA determines that all or a portion of the claim is well founded, the valid portion shall be allowed and paid for as "extra work"; if the OCFA determines that all or a portion of the claim is not well founded, the portion that is not well founded shall be disallowed and not paid, subject to Section 91. Nothing herein limits the authority of the OCFA to consider, approve or disapprove of Change Orders in accordance with the Project Manual.

101 Time of Completion.

Work will be deemed completed on the same date when the Notice of Completion is recorded with the County of Orange.

102 Delivered Materials.

Materials and equipment delivered but not incorporated into the work shall not be included in the estimate for progress payment.

103 Mobilization.

103.1 Mobilization shall consist of preparatory work and operations, including but not limited to those necessary for the movement of personnel, equipment, supplies, and incidentals to the Project site; for the establishment of all offices, buildings and other facilities necessary for the work on this Project; and for all other work and operations which must be performed or cost incurred prior to beginning work on the various contract items on the Project site. Mobilization is deemed to include all aspects of mobilization and de-mobilization work occurring during the life of the Project for any reason.

103.2 Full compensation for mobilization shall be included in the Contract lump sum price bid for Mobilization and shall include full compensation for all costs incurred by the Contractor for doing all the work involved in mobilization as specified herein, and no additional compensation will be allowed. Mobilization shall not exceed 5% of the entire bid, excluding mobilization and as shown in the Proposal Bid Sheet.

104 Facilities For Contract Personnel.**104.1 Extended Field Office Overhead Cost.**

104.1.1 Within fourteen (14) calendar days after receipt of the Notice to Proceed, the Contractor shall submit a written statement to the OCFA detailing its field office overhead costs which are time related. The OCFA will review this first cost submittal and reach a written agreement with the Contractor on a daily field office overhead cost rate which shall be memorialized in a no cost change order. The daily rate agreed to in this change order will be applicable throughout the duration of the Contract. No field office costs will be paid until such an agreement is reached between the OCFA and the Contractor and the change order concerning this daily rate is executed by both parties. Progress payments will be withheld pending receipt of the above-referenced cost submittal and executed change order.

104.1.2 The individual cost components of the daily field office overhead rate shall represent costs which increase as a direct result of any time extension caused solely and exclusively by an act or omission of the OCFA. This listing may include such cost items as on-site project management, supervision, Engineering and clerical salaries; on-site utilities and rent; on-site company vehicles and their operating expenses; and site maintenance and security expenses. Field office overhead costs which are unaffected by increased time shall not be allowable cost in calculating the daily field office overhead rate. These non-time related costs include, but are not limited to, acquisition and installation of stationary equipment; temporary construction facilities; utilities and office furnishings (unless such items are rented or leased); the preparation of the site

including clearing, grubbing, grading, fencing, mobilizations and demobilization costs; and the costs of permits, bonds and insurance coverage for the Project.

104.1.3 The individual wage cost components used to calculate the daily field office rate shall be supported by actual employee payroll records, not salary ranges or estimates. Hourly rates for management, supervisory, engineering, and clerical employees shall be based upon 2080 work hours per year and shall not include allowances for holidays, vacations, or sick time.

104.1.4 When applicable, the daily field office overhead rate shall be multiplied by the number of days the Contract is delayed or extended by change order and shall be added to the agreed upon change order cost. The days of delay shall be those caused solely by the acts or omissions of the OCFA and documented by a time impact analysis prepared and submitted by the Contractor. In the event a deductive change order is issued which reduces time under the Contract, the daily field office overhead rate shall be used to calculate the deductive amount. No allowance for overhead costs and no profit allowance shall be added to the extended field office overhead cost.

105 **OCFA Officers And Employees; Non-Discrimination**

105.1 No member, officer, member of the OCFA Board of Directors, or employee of the OCFA shall be personally liable to Contractor, or any successor in interest, in the event of any default or breach by OCFA or for any amount which may become due to Contractor or to its successor, or for breach of any obligation of the terms of this Contract.

105.2 Pursuant to the provisions of the OCFA's conflict of interest code, the Political Reform Act as set forth in Government Code Section 81000 et seq., and/or the prohibition against self-dealing in contracts as set forth in Government Code Section 1090 et. seq., the Parties acknowledge that no officer or employee of the OCFA, or any member of the OCFA Board, shall have any personal interest, direct or indirect, in this Contract or any Subcontract under the Contract, nor shall any such officer, employee, or member of the OCFA Board participate in any decision relating to the Contract which effects his or her personal interest or the interest of any corporation, partnership, or association in which he or she is, directly or indirectly, interested. In the furtherance of such acknowledgement, Contractor:

- i. Contractor agrees that no officer, employee, member of the OCFA Board of Directors, agent, or assignee of the OCFA having direct or indirect control of any monies allocated by OCFA to finance this Project, shall serve as an officer, director, employee, or agent of Contractor, or as a officer, director, employee, or agent of any Subcontractor of supplier of Contractor under this Contract; and
- ii. Any conflict or potential conflict of interest of any officer, director, employee, or agent of Contractor or any Subcontractor or supplier of Contractor has been fully disclosed to the OCFA prior to execution of this Contract and such disclosure shall be deemed a part of this Contract.

105.3 Contractor shall not expend any funds for the purpose of influencing or attempting to influence an officer, member, employee, or member of the OCFA Board in the connection with the awarding and the administration of this Contract or any subcontract in furtherance of the Project.

106 Entire Agreement

It is agreed that this Contract (which incorporates the Project Manual) represents the entire agreement. It is further agreed that the Project Manual is incorporated in this Contract by this reference, with the same force and effect as if the same were set forth at length within the Contract, and that Contractor and Contractor's officers, employees, agents, trades, material suppliers, and Subcontractors will be and are bound by any and all of said Project Manual insofar as they relate in any part or in any way, directly or indirectly, to the work covered by this Contract.

107 Written Notices

Any written notice required to be given in any part of the Contract Documents shall be performed by dispatching the same via email directed to the email address of the Contractor as set forth in the Contract Documents, and to the OCFA addressed as follows:

- A. [INSERT OCFA CONTACT INFO FOR NOTICES]
- B. [INSERT CONTRACTOR CONTACT INFO FOR NOTICES]

108 Miscellaneous Provisions

- 108.1 Assignment: Contractor shall neither delegate its duties or obligations, nor assign its rights with respect to this Contract, either in whole or in part. Any such attempted delegation and/or assignment shall be void and deemed void at such occurrence, if it were to occur.
- 108.2 Computation of Time: When any period of time is referred to in the Project Manual by days, it shall be computed to exclude the first and include the last day of the period, provided, however, that if the last day of the period falls on a Saturday, Sunday, or legal holiday, that day shall be omitted from the computation. "Days" refers to calendar days unless otherwise expressly provided.
- 108.3 Remedies Cumulative: No remedy herein reserved to OCFA is intended to be exclusive of any other remedy, but each and every such remedy shall be cumulative and shall be in addition to any other given in the Project Manual as now or hereafter existing or at law, equity, or by statute.
- 108.4 Nonwaiver: The failure of the OCFA to notify the Contractor of any default under the Project Manual shall not be deemed to be a waiver by OCFA of any continuing default by Contractor of any term, covenant, or condition set forth in this Contract, nor of the OCFA's right to declare a default for any such continuing breach, and the failure of OCFA to insist upon strict performance of any of the terms, covenants, or conditions of the Project Manual, or to exercise any option in the Project Manual in any one or more instances, shall not be construed as a waiver or relinquishment of any such terms, covenants, conditions or options, but the same shall be and remain in full force and effect.
- 108.5 Severability: In case any one or more provisions set forth in the Project Manual shall for any reason be held invalid, illegal, or unenforceable in any respect, any such invalidity, illegality, or unenforceability shall not affect any other provision of the Project Manual, and the Project Manual and this Contract shall be construed as if such invalid, illegal, or unenforceable provision had never been incorporated therein so long as the deletion of such provision does not, in the OCFA's judgment, materially alter this Contract.

- 108.6 No Third Party Beneficiaries: The Project Manual and this Contract are not intended and shall not be deemed or construed, to confer any rights, powers, or privileges on any person, firm, partnership, corporation, or other entity not a party to this Contract except as may be expressly provided in the Contract to the contrary.
- 108.7 No Verbal Agreements: No verbal order, objection, claim, or notice by any party to the other shall affect or modify any of the terms or obligations contained in this Contract or the Project Manual, and none of the provisions of the Project Manual shall be held to be waived or modified by reason of any act whatsoever, other than by a definitely agreed waiver or Modification in writing and executed in the manner required in this Contract by authorized officers or representatives of the Parties. No evidence shall be introduced in any proceeding of any other waiver or modification.
- 108.8 Counterparts: This Contract may be executed in any number of counterparts, and each of such counterparts for all purposes shall be deemed to be an original, and all of such counterparts should constitute one and the same agreement.
- 108.9 Governing Law/Venue: The Contract, including the Project Manual, shall be governed by the laws of the State of California. Venue for all disputes related to the Project, the Contract Agreement and/or the Project Manual shall be in Orange County, California.
- 108.10 Services Prior to Execution: Notwithstanding the fact that this Contract is executed as of the date first set forth above, the Parties recognize that a portion of the Work required under the Project Manual may have been performed prior to such date, all of which Work shall be governed by the terms and conditions of this Contract and shall be deemed to be a part of the Work. Without limiting the foregoing, all of Contractor's liabilities and obligations to OCFA under the Project Manual shall apply to all Work and services provided by the Contractor for the Work prior hereto, notwithstanding the fact that the Work may have been performed prior to the date hereof pursuant to prior negotiations, representations, agreements, understandings, or otherwise.
- 108.11 Survival of Rights: Any indemnity, warranty, guarantee given by the Contractor to the OCFA under this Contract shall survive the expiration or termination of this Contract and shall be binding upon Contractor until any action under this Contract is barred by the applicable statute of limitations.
- 108.12 Notice: All notices (whether or not designated as such herein) which are required under this Contract to be given between the parties pursuant to this Paragraph shall be in writing and deemed given and, unless otherwise provided herein, effective when delivered personally to an officer of the party to be served (including the Contractor's Project Manager, in the case of the Contractor), when deposited in the United States mail, or in a sealed envelope, with postage thereon prepaid, sent by registered or certified mail, return receipt requested, and addressed to the appropriate party at the address set forth in the Contract or such other address as may be designated by either party hereto by notice to the other, or when transmitted by wire or facsimile to the appropriate party at the aforesaid address (a complimentary confirming letter shall also be mailed to the appropriate party on the same date).
- 108.13 Maintenance of Harmonious Relations: The Contractor is hereby advised that any portion of the Project, or other projects in proximity to the Project may be subject to, and governed by, certain union or trade agreements. It is the policy of OCFA to promote and maintain harmonious relationships in connection with the Project. The Contractor and its Subcontractors and Sub-subcontractors shall follow this policy; and shall utilize only

qualified persons or organizations in the performance of the Work. A qualified person or organization is one: which is not likely to promote labor unrest on the Project; which shall abide by all local, state and federal labor and employment relation rules, regulations and laws; whose financial stability is reasonably assured throughout the duration of the Contract; and whose commitments to other projects are not likely to interfere with its ability to perform its portion of the Work efficiently and cost effectively. OCFA reserves the right to disapprove, or to require the removal of, any person or organization who is being considered for, or has received, an award to perform all or a portion of the Work but has failed to demonstrate the willingness or ability to follow this policy.

- 108.14 Union Agreements: Regardless of the expiration of any collective bargaining agreement during the term of this Contract which may affect the Contractor in any of its activities including, without limitation, with respect to the Work or the Project, the Contractor is obligated to man the job and properly and timely perform the Work in a diligent manner. Upon notification of expected or actual labor disputes or job disruption arising out of any such collective bargaining negotiations, the expiration of any union or trade agreement or any other cause, the Contractor and its Subcontractors and Sub-subcontractors shall cooperate with OCFA concerning any legal, practical or contractual actions to be taken by OCFA in response thereto and shall perform any actions requested by OCFA to eliminate, neutralize or mitigate the affects of such actions on the progress of the Work and the impact of such actions on the public access to OCFA's facilities. It is the Contractor's obligation, at the Contractor's own cost and expense, to take all steps available to prevent any persons performing the work from engaging in any disruptive activities such as strikes, picketing, slowdowns, job actions or work stoppages of any nature or ceasing to work due to picketing or other such activities, which steps shall include, without limitation, execution of an appropriate project agreement with appropriate unions prohibiting all such activities on or about the Project. Notwithstanding any such occurrences, the Contractor shall not be relieved of its obligation to man the job and properly and timely perform the Work in a diligent manner.
- 108.15 Immigration Reform Control Act: All Contractors, Subcontractors, and Sub-subcontractors must adhere to the Immigration Reform Control Act of 1986 and shall maintain I-9 forms regarding all employees. It is not OCFA's obligation to insure compliance with this law, however, OCFA reserves the right to inspect and copy the Contractor's records in this regard upon request.
- 108.16 General: The captions of divisions, sections, articles, Paragraphs, Subparagraphs, clauses and the like in the Project Manual are for convenience only and shall in no way define the content or limit the meaning or construction of the wording of the divisions, sections, articles, Paragraphs, Subparagraphs, clauses and the like. The parties agree that the Project Manual shall not be construed more strictly against any party regardless of the identity of their drafter. Unless otherwise specified, Section and Subsection references appearing in these General Conditions are to Section and Subsections of the Contract Agreement.
- 108.17 Evidence of Corporate Existence and Good Standing. A corporation to which an award is made may be required, before the Contract Agreement is executed by the OCFA, to furnish evidence of its corporate existence and good standing, of its right to enter into contracts in the State of California, and that the officers signing the Contract and bonds for the corporation have the authority to do so. (Ref: California Corporations Code section 7214.)

SECTION 5: TECHNICAL SPECIFICATIONS

5A: SPECIFICATIONS – ITZEN ARCHITECTS

OCFA FIRE STATION #4 –
ORANGE COUNTY FIRE
AUTHORITY

2 CALIFORNIA AVE
IRVINE, CA 92612

February 28, 2023

ITZEN

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OCFA Fire Station #4
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Note: Structural, Mechanical, Plumbing, and Electrical specifications are on Drawings.

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SECTION 011000 - SUMMARY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Work covered by the Contract Documents.
 - 2. Type of the Contract.
 - 3. Owner-furnished products.
 - 4. Use of premises.
 - 5. Work restrictions.
 - 6. Specification formats and conventions.
 - 7. Deferred Approvals.
 - 8. Pollution Control.
 - 9. Storm Water Pollution Prevention Plan.
 - 10. Lead-Containing materials abatement.
 - 11. Asbestos abatement.

1.3 WORK COVERED BY CONTRACT DOCUMENTS

- A. Project Identification: OC Fire Station #4.
- B. Project Location: 2 California Ave.; Irvine, California 92612.
- C. Architect: ITZEN.
- D. The Work consists of the following:
 - 1. The Work includes fire station #4.

1.4 TYPE OF CONTRACT

- A. Project will be constructed under a single prime contract.

1.5 WORK RESTRICTIONS

- A. On-Site Work Hours:
 - 1. Work shall be generally performed inside the existing building during normal business working hours to be per city guidelines, Monday through Friday, except otherwise indicated.

- B. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:
 - 1. Notify Architect not less than two days in advance of proposed utility interruptions.
 - 2. Do not proceed with utility interruptions without Architect's Owner's written permission.

1.6 SPECIFICATION FORMATS AND CONVENTIONS

- A. Specification Format: The Specifications are organized into Divisions and Sections using the 49-division format and CSI's MasterFormat 2004 numbering system.
 - 1. Section Identification: The Specifications use Section numbers and titles to help cross-referencing in the Contract Documents. Sections in the Project Manual are in numeric sequence; however, the sequence is incomplete because all available Section numbers are not used. Consult the table of contents at the beginning of the Project Manual to determine numbers and names of Sections in the Contract Documents.
 - 2. Division 1: Sections in Division 1 govern the execution of the Work of all Sections in the Specifications.
- B. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:
 - 1. Abbreviated Language: Language used in the Specifications and other Contract Documents is abbreviated. Words and meanings shall be interpreted as appropriate. Words implied, but not stated, shall be inferred as the sense requires. Singular words shall be interpreted as plural, and plural words shall be interpreted as singular where applicable as the context of the Contract Documents indicates.
 - 2. Imperative mood and streamlined language are generally used in the Specifications. Requirements expressed in the imperative mood are to be performed by Contractor. Occasionally, the indicative or subjunctive mood may be used in the Section Text for clarity to describe responsibilities that must be fulfilled indirectly by Contractor or by others when so noted.
 - a. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.

1.7 DEFERRED APPROVALS

- A. Deferred approval items are listed on Drawings.
- B. Contractor is solely responsible for obtaining all necessary approvals and all costs associated with obtaining the approval of Agency Having Jurisdiction (AHJ) including all Architectural and Engineering fees for coordinating with Agency Having Jurisdiction (AHJ) beyond review and shipping of two separate Contractor provided submittals. Do not commence installation of any deferred approval item until all approvals have been obtained.

1.8 POLLUTION CONTROL

- A. Provide positive methods, means and facilities required to prevent contamination of the soil, water or atmosphere by the discharge of noxious substances from the construction operations.

1.9 STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

- A. The owner shall submit a Storm Water Pollution Prevention Plan for approval by the City's Public Works and Community Development Departments. The plan shall show erosion control measures and indicate locations of staging, fueling, equipment and employee parking, and storage/stockpile locations. Locations for concrete washout shall be shown, as well as gravel site entrances and/or metal grates to keep soil from being deposited on City streets. The plan shall note that street sweeping shall occur as often as necessary, to ensure that no dirt or dust will remain on City streets. Drip pans shall be used under parked equipment and visqueen shall be shown on the plan to protect the soil in the fueling area. Only minor vehicle maintenance shall occur on-site. Maintenance shall occur in the fueling area and soil shall be protected by drip pans and visqueen.
- B. Prepare a Storm Water Pollution Prevention Plan (SWPPP) and file a Notice of Intent with the State Water Resources Control Board for this project. The SWPPP will provide Best Management Practice (BMP) methods and controls for wet weather grading activities and erosion control for both onsite and offsite improvements, in accordance with the requirements of the NPDES General Permit for Storm Water Discharges Associated with Construction Activity. The SWPPP shall include an erosion control plan.

1.10 MISCELLANEOUS PROVISIONS

- A. General: Comply with the Project Conditions of Approval for both noise and dust control. If there is any conflict between drawings and specifications and the Project Conditions of Approval regarding noise and dust control, the Project Conditions of Approval shall govern.
- B. Noise Control:
 - 1. The Contractor shall install noise reducing devices on construction equipment. Contractor shall comply with the requirements of the city and county having jurisdiction with regard to noise ordinances governing construction sites and activities. Construction Equipment noise at the Site shall be limited and only as permitted by applicable law, rule or regulation.
- C. Dust Control:
 - 1. The Contractor shall be fully and solely responsible for maintaining and up-keeping all areas of the Site and adjoining areas, outdoors and indoors, free from flying debris, grinding powder, sawdust, dirt and dust as well as any other product, product waste or work waste, that by becoming airborne may cause respiratory inconveniences to persons and Owner's personnel.
 - 2. Additionally, the Contractor shall take specific care to avoid deposits of airborne dust or airborne elements. Such protection devices, systems or methods shall be in accordance with the regulations set forth by the EPA and OSHA, and other applicable law, rule or regulation.
 - 3. Additionally, the Contractor shall be the sole party responsible to regularly and routinely clean up and remove dust and other elements. Damage and/or any liability derived from the Contractor's failure to comply with these requirements shall be exclusively at the cost of the Contractor, including, without limitation, any and all penalties that may be incurred for violations of applicable law, rule or regulation, and any amounts expended by the Owner to pay such damages shall be due and payable to the Owner on demand.

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1.11 LEAD-CONTAINING MATERIALS ABATEMENT

- A. Lead-Containing materials abatement is part of contract.
- B. Lead-Containing materials abatement report is available from City upon request.

1.12 ASBESTOS ABATEMENT

- A. Asbestos abatement is part of contract.
- B. Asbestos abatement report is attached at end of spec book as appendix.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 011000

SECTION 012600 - CONTRACT MODIFICATION PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements for handling and processing Contract modifications.

1.3 MINOR CHANGES IN THE WORK

- A. Architect may issue supplemental instructions authorizing Minor Changes in the Work, not involving adjustment to the Contract Sum or the Contract Time, or Changes not affecting the Structural Safety, Access Compliance or Fire & Life Safety portions of the work, on AIA Document G710, "Architect's Supplemental Instructions" or an equivalent form acceptable to.

1.4 PROPOSAL REQUESTS (BULLETIN)

- A. Owner-Initiated Proposal Requests: Architect may issue a detailed description of proposed changes in the Work that may require adjustment to the Contract Sum or the Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications.
 1. Proposal Requests issued are for information only. Do not consider them instructions either to stop work in progress or to execute the proposed change.
 2. Within time specified in Proposal Request after receipt of Proposal Request, submit a quotation estimating cost adjustments to the Contract Sum and the Contract Time necessary to execute the change.
 - a. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
 - b. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
 - c. Include costs of labor and supervision directly attributable to the change.
 - d. Include an updated Contractor's Construction Schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time applicable only if time extension is requested.

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1.5 PROPOSED COST CHANGE FORMAT

- A. As specified in General Conditions.

1.6 CHANGE ORDER PROCEDURES

- A. On Owner's approval of a Proposal Request, Architect may issue a Change Order for signatures of Owner and Contractor.

1.7 CONSTRUCTION (FIELD) CHANGE DIRECTIVE

- A. Construction Change Directive: Architect may issue a Construction Change Directive. Construction Change Directive instructs Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.
 - 1. Construction Change Directive contains a complete description of change in the Work. It also designates method to be followed to determine change in the Contract Sum or the Contract Time.
- B. Documentation: Maintain detailed records on a time and material basis of work required by the Construction Change Directive, if a quote or lump sum pricing has not been provided.
 - 1. After completion of change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012600

SECTION 012900 - PAYMENT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements necessary to prepare and process Applications for Payment.
- B. Related Sections include the following:
 - 1. Division 1 Section "Contract Modification Procedures" for administrative procedures for handling changes to the Contract.

1.3 DEFINITIONS

- A. Schedule of Values: A statement furnished by Contractor allocating portions of the Contract Sum to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

1.4 SCHEDULE OF VALUES

- A. Coordination: Coordinate preparation of the Schedule of Values with preparation of Contractor's Construction Schedule.
 - 1. Correlate line items in the Schedule of Values with other required administrative forms and schedules, including the following:
 - a. Application for Payment forms with Continuation Sheets.
 - 2. Submit the Schedule of Values to Architect at earliest possible date but no later than 10 days before the date scheduled for submittal of initial Applications for Payment.
 - 3. No payment applications will be signed by the Architect prior to the Contractor submitting, and the Architect reviewing, a schedule of values.
- B. Format and Content: Use the Project Manual table of contents as a guide to establish line items for the Schedule of Values. Provide at least one line item for each Specification Section.
 - 1. Identification: Include the following Project identification on the Schedule of Values:
 - a. Project name and location.
 - b. Name of Architect.
 - c. Architect's project number.
 - d. Contractor's name and address.
 - e. Date of submittal.
 - 2. Submit draft of AIA Document G703 Continuation Sheets.

3. Arrange the Schedule of Values in tabular form with separate columns to indicate the following for each item listed:
 - a. Related Specification Section or Division.
 - b. Description of the Work.
 - c. Change Orders (numbers) that affect value.
 - d. Dollar value.
 - 1) Percentage of the Contract Sum to nearest one-hundredth percent, adjusted to total 100 percent.
4. Provide a breakdown of the Contract Sum in enough detail to facilitate continued evaluation of Applications for Payment and progress reports. Coordinate with the Project Manual table of contents. Provide several line items for principal subcontract amounts, where appropriate.
5. Round amounts to nearest whole dollar; total shall equal the Contract Sum.
6. Provide a separate line item in the Schedule of Values for each part of the Work where Applications for Payment may include materials or equipment purchased or fabricated and stored, but not yet installed.
 - a. Differentiate between items stored on-site and items stored off-site. If specified, include evidence of insurance or bonded warehousing.
7. Provide separate line items in the Schedule of Values for initial cost of materials, for each subsequent stage of completion, and for total installed value of that part of the Work.
8. Each item in the Schedule of Values and Applications for Payment shall be complete. Include total cost and proportionate share of general overhead and profit for each item.
 - a. Temporary facilities and other major cost items that are not direct cost of actual work-in-place may be shown either as separate line items in the Schedule of Values or distributed as general overhead expense, at Contractor's option.
9. Schedule Updating: Update and resubmit the Schedule of Values before the next Applications for Payment when Change Orders or Construction Change Directives result in a change in the Contract Sum.

1.5 APPLICATIONS FOR PAYMENT

- A. Each Application for Payment shall be consistent with previous applications and payments as certified by Architect and paid for by Owner.
 1. Initial Application for Payment, Application for Payment at time of Substantial Completion, and final Application for Payment involve additional requirements.
- B. Payment Application Times:
 1. The date for each progress payment is indicated in the Agreement between Owner and Contractor. The period of construction Work covered by each Application for Payment is the period indicated in the Agreement.
- C. Payment Application Forms: Use AIA Document G702 and AIA Document G703 Continuation Sheets as form for Applications for Payment.
- D. Application Preparation: Complete every entry on form. Notarize and execute by a person authorized to sign legal documents on behalf of Contractor. Architect will return incomplete applications without action.
 1. Entries shall match data on the Schedule of Values and Contractor's Construction Schedule. Use updated schedules if revisions were made.

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2. Include amounts of Change Orders and Construction Change Directives issued before last day of construction period covered by application.
- E. Transmittal: Submit 3 signed and notarized original copies of each Application for Payment to Architect by a method ensuring receipt within 24 hours. One copy shall include waivers of lien and similar attachments if required.
1. Transmit each copy with a transmittal form listing attachments and recording appropriate information about application.
- F. Initial Application for Payment: Administrative actions and submittals that must precede or coincide with submittal of first Application for Payment include the following:
1. List of subcontractors.
 2. Schedule of Values.
 3. Contractor's Construction Schedule (preliminary if not final).
 4. Initial progress report.
 5. Removed
 6. Certificates of insurance and insurance policies.
 7. Data needed to acquire Owner's insurance.
- G. Application for Payment at Substantial Completion: After issuing the Certificate of Substantial Completion, submit an Application for Payment showing 100 percent completion for portion of the Work claimed as substantially complete.
1. Include documentation supporting claim that the Work is substantially complete and a statement showing an accounting of changes to the Contract Sum.
 2. This application shall reflect Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions of the Work.
- H. Final Payment Application: Submit final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited, to the following:
1. Evidence of completion of Project closeout requirements.
 2. Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
 3. Updated final statement, accounting for final changes to the Contract Sum.
 4. AIA Document G706, "Contractor's Affidavit of Payment of Debts and Claims."
 5. AIA Document G706A, "Contractor's Affidavit of Release of Liens."
 6. AIA Document G707, "Consent of Surety to Final Payment."
 7. Evidence that claims have been settled.
 8. Final meter readings for utilities, a measured record of stored fuel, and similar data as of date of Substantial Completion or when Owner took possession of and assumed responsibility for corresponding elements of the Work.
 9. Final, liquidated damages settlement statement.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012900

SECTION 013100 - PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:
 - 1. Project meetings.
 - 2. Requests for Interpretation (RFIs).

1.3 COORDINATION

- A. Coordination: Coordinate construction operations included in different Sections of the Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations, included in different Sections, that depend on each other for proper installation, connection, and operation.
 - 1. Schedule construction operations in sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
 - 2. Coordinate installation of different components with other contractors to ensure maximum accessibility for required maintenance, service, and repair.
 - 3. Make adequate provisions to accommodate items scheduled for later installation.
 - 4. Where availability of space is limited, coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair of all components, including mechanical and electrical.
- B. Prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and list of attendees at meetings.
 - 1. Prepare similar memoranda for Owner and separate contractors if coordination of their Work is required.
- C. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities and activities of other contractors to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
 - 1. Preparation of Contractor's Construction Schedule.
 - 2. Preparation of the Schedule of Values.
 - 3. Installation and removal of temporary facilities and controls.
 - 4. Delivery and processing of submittals.

5. Progress meetings.
6. Preinstallation conferences.
7. Project closeout activities.
8. Startup and adjustment of systems.
9. Project closeout activities.

- D. Conservation: Coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water, and materials.
1. Removed

1.4 PROJECT MEETINGS

- A. General: Schedule and conduct meetings and conferences at Project site, unless otherwise indicated.
1. Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify Owner and Architect of scheduled meeting dates and times.
 2. Agenda: Prepare the meeting agenda. Distribute the agenda to all invited attendees.
 3. Minutes: Record significant discussions and agreements achieved. Distribute the meeting minutes to everyone concerned, including Owner and Architect, within [**three**] days of the meeting.
 4. Frequency of Attendance by Architect: Limited by Architect/Owner Contract.
- B. Preconstruction Conference: Schedule a preconstruction conference before starting construction, at a time convenient to Owner and Architect, but no later than 15 days after execution of the Agreement. Hold the conference at Project site or another convenient location. Conduct the meeting to review responsibilities and personnel assignments.
1. Attendees: Authorized representatives of Owner, Architect, and their consultants; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the conference. All participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
 2. Agenda: Discuss items of significance that could affect progress, including the following:
 - a. Tentative construction schedule.
 - b. Phasing, if any.
 - c. Critical work sequencing and long-lead items.
 - d. Designation of key personnel and their duties.
 - e. Procedures for processing field decisions and Change Orders.
 - f. Procedures for RFIs.
 - g. Procedures for testing and inspecting.
 - h. Procedures for processing Applications for Payment.
 - i. Distribution of the Contract Documents.
 - j. Submittal procedures.
 - k. Preparation of Record Documents.
 - l. Use of the premises.
 - m. Work restrictions.
 - n. Owner's occupancy requirements.
 - o. Responsibility for temporary facilities and controls.
 - p. Construction waste management and recycling.
 - q. Parking availability.

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- r. Office, work, and storage areas.
 - s. Equipment deliveries and priorities.
 - t. First aid.
 - u. Security.
 - v. Progress cleaning.
 - w. Working hours.
3. Minutes: Record and distribute meeting minutes.
- C. Preinstallation Conferences: Conduct a preinstallation conference at Project site before each construction activity that requires coordination with other construction.
1. Attendees: Installer and representatives of manufacturers and fabricators involved in or affected by the installation and its coordination or integration with other materials and installations that have preceded or will follow, shall attend the meeting. Advise Architect of scheduled meeting dates.
 2. Agenda: Review progress of other construction activities and preparations for the particular activity under consideration, including requirements for the following:
 - a. The Contract Documents.
 - b. Options.
 - c. Related RFIs.
 - d. Related Change Orders.
 - e. Purchases.
 - f. Deliveries.
 - g. Submittals.
 - h. Review of mockups.
 - i. Possible conflicts.
 - j. Compatibility problems.
 - k. Time schedules.
 - l. Weather limitations.
 - m. Manufacturer's written recommendations.
 - n. Warranty requirements.
 - o. Compatibility of materials.
 - p. Acceptability of substrates.
 - q. Temporary facilities and controls.
 - r. Space and access limitations.
 - s. Regulations of authorities having jurisdiction.
 - t. Testing and inspecting requirements.
 - u. Installation procedures.
 - v. Coordination with other work.
 - w. Required performance results.
 - x. Protection of adjacent work.
 - y. Protection of construction and personnel.
 3. Record significant conference discussions, agreements, and disagreements, including required corrective measures and actions.
 4. Reporting: Distribute minutes of the meeting to each party present and to parties who should have been present.
 5. Do not proceed with installation if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of the Work and reconvene the conference at earliest feasible date.
- D. Progress Meetings: Conduct progress meetings at weekly intervals. Coordinate dates of meetings with preparation of payment requests.

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1. Attendees: In addition to representatives of Owner and Architect, each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
2. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.
 - a. Contractor's Construction Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's Construction Schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.
 - 1) Review schedule for next period.
 - b. Review present and future needs of each entity present, including the following:
 - 1) Interface requirements.
 - 2) Sequence of operations.
 - 3) Status of submittals.
 - 4) Deliveries.
 - 5) Off-site fabrication.
 - 6) Access.
 - 7) Site utilization.
 - 8) Temporary facilities and controls.
 - 9) Work hours.
 - 10) Hazards and risks.
 - 11) Progress cleaning.
 - 12) Quality and work standards.
 - 13) Status of correction of deficient items.
 - 14) Field observations.
 - 15) RFIs.
 - 16) Status of proposal requests.
 - 17) Pending changes.
 - 18) Status of Change Orders.
 - 19) Pending claims and disputes.
 - 20) Documentation of information for payment requests.
3. Minutes: Record the meeting minutes.
4. Reporting: Distribute minutes of the meeting to each party present and to parties who should have been present.

1.5 RFIs:

A. General:

1. Contractor may submit a RFI to the Architect seeking clarification or interpretation of the contract documents. If in the Contractor's opinion the nature of the RFI requires a discussion, rather than simply an answer, the Contractor shall call the Architect to have such a discussion. The results of that discussion as well as all other RFI's must be presented in writing on a form approved in advanced by the Architect along with any supporting information or data, as well as the Contractor's recommended resolution. An oral RFI or a RFI presented on an unapproved form, or without adequate supporting

- information and Contractor's recommended solution, will be attributed solely to the contractor. Architect's review of or responses to RFI's shall not constitute an approval, direction, or procedure related to the construction means, methods, techniques, sequences, or procedures of the Contractor.
2. Architect's review of or responses to RFI's shall not constitute an approval, direction, or procedure related to the construction site safety precautions, procedures, or methodology of the Contractor.
 3. The use of a RFI is limited to clarification of the contract documents. Contractor will limit each RFI to a single issue. Information which is discernable from the contract documents; construction means and methods; product substitution submittals; product submittals; and construction site safety will not be addressed by the Architect in responding to a RFI.
 4. Architect's response to a RFI is not a change order or directive authorizing an increase in construction cost or time.
- B. Procedure: Immediately on discovery of the need for interpretation of the Contract Documents, and if not possible to request interpretation at Project meeting, prepare and submit an RFI in the form specified.
1. RFIs shall originate with Contractor. RFIs submitted by entities other than Contractor will be returned with no response.
 2. Coordinate and submit RFIs in a prompt manner so as to avoid delays in Contractor's work or work of subcontractors.
- C. Removed
- D. Content of the RFI: Include a detailed, legible description of item needing interpretation and the following:
1. Project name.
 2. Date.
 3. Name of Contractor.
 4. Name of Architect.
 5. RFI number, numbered sequentially.
 6. Specification Section number and title and related paragraphs, as appropriate.
 7. Drawing number and detail references, as appropriate.
 8. Field dimensions and conditions, as appropriate.
 9. Contractor's suggested solution(s). If Contractor's solution(s) impact the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
 10. Contractor's signature.
 11. Attachments: Include drawings, descriptions, measurements, photos, Product Data, Shop Drawings, and other information necessary to fully describe items needing interpretation.
 - a. Supplementary drawings prepared by Contractor shall include dimensions, thicknesses, structural grid references, and details of affected materials, assemblies, and attachments.
- E. Hard-Copy RFIs: Form at end of this Section.
1. Identify each page of attachments with the RFI number and sequential page number.
- F. Architect's Action: Architect will review each RFI, determine action required, and return it. Allow **7** days for Architect's response for each RFI. RFIs received after 1:00 p.m. will be considered as received the following working day.
1. The following RFIs will be returned without action:

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- a. Requests for approval of submittals.
 - b. Requests for approval of substitutions.
 - c. Requests for adjustments in the Contract Time or the Contract Sum.
 - d. Requests for interpretation of Architect's actions on submittals.
 - e. Incomplete RFIs or RFIs with numerous errors.
2. Architect's action may include a request for additional information, in which case Architect's time for response will start again.
 3. Architect's action on RFIs that may result in a change to the Contract Time or the Contract Sum may be eligible for Contractor to submit Change Proposal according to Division 1 Section "Contract Modification Procedures."
 - a. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Architect in writing within 10 days of receipt of the RFI response.
- G. RFI Log: Prepare, maintain, and submit a tabular log of RFIs organized by the RFI number. Submit log weekly. Include the following:
1. Project name.
 2. Name and address of Contractor.
 3. Name and address of Architect.
 4. RFI number including RFIs that were dropped and not submitted.
 5. RFI description.
 6. Date the RFI was submitted.
 7. Date Architect's response was received.
 8. Identification of related Minor Change in the Work, Construction Change Directive, and Proposal Request, as appropriate.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 FORMS

- A. Electronic versions of attached forms will be provided upon request.
 1. RFI Form.
 2. RFI Log.
- B. With architect approval contractor may use contractor's forms.

END OF SECTION 013100

RFI FORM

Project:	RFI No:
Project No:	
To:	Date:
From:	

Subject:	Category	
Discipline:		
Specification Section Title:		
Section Number:	Page:	Article/Paragraph:
Sheet Number:		Detail:

Question:

Suggestion:

Attachment:

Undersigned certifies:

- Both drawings and specification sections were thoroughly reviewed.
- Processing time for frivolous RFIs will be charged back to Contractors at A/E billable rates.

Desired Response Date:	(However, A/E still have specified days to respond.)
Cost Impact: \$	Schedule Impact: days
Drawing Impact:	Submitted by:
Signed:	Date:

Answer:

Answered by:

Signed: Date:

Copies: Owner Consultants

File

1. A/E review of or responses to RFI's shall not constitute an approval, direction, or procedure related to the construction site safety precautions, procedures, or methodology of the Contractor.
2. The use of a RFI is limited to clarification of the contract documents. Contractor will limit each RFI to a single issue. Information that is discernable from the contract documents; construction means and methods; product substitution submittals; and construction site safety will not be addressed by the A/E in responding to a RFI.
3. A/E response to a RFI is not a change order or directive authorizing an increase in construction cost or time.

End of RFI Form

RFI LOG

Project:	Project Number:
Contractor:	Updated Date:

RFI Number	Submit Date	Subject of RFI	Response Date	Proposal Request No.

Submitted by: _____

Signed: _____ Date: _____

End of RFI Log

SECTION 013200 - CONSTRUCTION PROGRESS DOCUMENTATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for documenting the progress of construction during performance of the Work, including the following:
 1. Contractor's Construction Schedule.
 2. Submittals Schedule.
 3. Three Week Look-Ahead Schedule.
 4. Daily construction reports.

1.3 SUBMITTALS

- A. Submittals Schedule: Submit three copies of schedule. Arrange the following information in a tabular format:
 1. Scheduled date for first submittal.
 2. Specification Section number and title.
 3. Submittal category (action or informational).
 4. Name of subcontractor.
 5. Description of the Work covered.
 6. Scheduled date for Architect's final release or review.
- B. Contractor's Construction Schedule: Submit three copies of schedule, large enough (minimum 11 x 17) to show entire schedule for entire construction period.
- C. Removed

1.4 COORDINATION

- A. Coordinate preparation and processing of schedules and reports with performance of construction activities and with scheduling and reporting of separate contractors.
- B. Coordinate Contractor's Construction Schedule with the Schedule of Values, list of subcontracts, Submittals Schedule, progress reports, payment requests, and other required schedules and reports.
 1. Secure time commitments for performing critical elements of the Work from parties involved.

2. Coordinate each construction activity in the network with other activities and schedule them in proper sequence.

PART 2 - PRODUCTS

2.1 Removed

A. Removed

- B. Prepare the schedule in chronological order; include submittals required during the first 90 days of construction. Provide the following information:
 1. Scheduled date for the first submittal.
 2. Related Section number.
 3. Submittal category.
 4. Name of subcontractor.
 5. Description of the part of the Work covered.
 6. Scheduled date for resubmittal.
 7. Scheduled date the Architect's final release or review.
- C. Distribution: Following response to initial submittal, print and distribute copies to the Architect, Owner, subcontractors, and other parties required to comply with submittal dates indicated. Post copies in the project meeting room and field office.
 1. When revisions are made, distribute to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in construction activities.
- D. Schedule Updating: Revise the schedule after each meeting or activity, where revisions have been recognized or made. Issue the updated schedule concurrently with report of each meeting.

2.2 CONTRACTOR'S CONSTRUCTION SCHEDULE

- A. Bar-Chart Schedule: Prepare a fully developed, horizontal bar-chart type Contractor's construction schedule. Submit within 15 days of the date established for "Commencement of the Work". The Construction Schedule must be submitted and accepted prior to approval of first pay application.
 1. Provide a separate time bar for each significant construction activity. Provide a continuous vertical line to identify the first working day of each week. Use the same breakdown of units of the Work as identified in the "Schedule of Values".
 2. Within each time bar indicate estimated completion percentage in 10 percent increments. As work progresses indicate Actual Completion.
 3. Prepare the schedule on a sheet, or series of sheets, of stable reproducible media, of sufficient width to show data for the entire construction period.
 4. Coordinate each element on the schedule with other construction activities; include minor elements involved in the sequence of the Work. Show each activity in proper sequence. Indicate graphically sequences necessary for completion of related portions of the Work.
 5. Coordinate the Contractor's construction schedule with the progress reports, payment requests and other schedules.

6. Indicate completion in advance of the date established for Substantial Completion. Indicate Substantial Completion on the schedule to allow time for the Architect's procedures necessary for certification of Substantial Completion.
- B. Phasing: Provide notations on the schedule to show how the sequence of the Work is affected by requirements for phased completion to permit work by separate Contractors and partial occupancy by the Owner prior to Substantial Completion.
- C. Work Stages: Indicate important stages of construction for each major portion of the Work, including testing and installation.
- D. Area Separations: Provide a separate time bar to identify each major construction area for each major portion of the Work. Indicate where each element in an area must be sequenced or integrated with other activities.

2.3 THREE WEEK LOOK-AHEAD SCHEDULE

- A. Prepare weekly (or as determined by scheduled meeting times), prior to Project meetings, a computer-generated 3-week look-ahead schedule (bar chart) which is consistent with the Contractors schedule and depicts daily labor activities. The schedule will consist of the prior week, current week and the following 3 weeks.

2.4 REPORTS

- A. Daily Construction Reports: Prepare a daily construction report recording the following information concerning events at Project site:
 1. List of subcontractors at Project site.
 2. List of separate contractors at Project site.
 3. Approximate count of personnel at Project site.
 4. Equipment at Project site.
 5. Material deliveries.
 6. High and low temperatures and general weather conditions.
 7. Accidents.
 8. Meetings and significant decisions.
 9. Unusual events (refer to special reports).
 10. Stoppages, delays, shortages, and losses.
 11. Meter readings and similar recordings.
 12. Emergency procedures.
 13. Orders and requests of authorities having jurisdiction.
 14. Change Orders received and implemented.
 15. Construction Change Directives received and implemented.
 16. Services connected and disconnected.
 17. Equipment or system tests and startups.
 18. Partial Completions and occupancies.
 19. Substantial Completions authorized.

PART 3 - EXECUTION

3.1 CONTRACTOR'S CONSTRUCTION SCHEDULE

- A. Contractor's Construction Schedule Updating: At monthly intervals, update schedule to reflect actual construction progress and activities. Issue schedule one week before each regularly scheduled progress meeting.
 - 1. Revise schedule immediately after each meeting or other activity where revisions have been recognized or made. Issue updated schedule concurrently with the report of each such meeting.
 - 2. Include a report with updated schedule that indicates changes, including, but not limited to, changes in durations, actual starts and finishes, and activity durations.
 - 3. As the Work progresses, indicate Actual Completion percentage for each activity.
- B. Distribution: Distribute copies of reviewed schedule to Architect Owner, separate contractors, testing and inspecting agencies, and other parties identified by Contractor with a need-to-know schedule responsibility.
 - 1. Post copies in Project meeting rooms and temporary field offices.
 - 2. When revisions are made, distribute updated schedules to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in performance of construction activities.

3.2 FORMS

- A. Electronic versions of attached forms will be provided upon request.
 - 1. Submittals Schedule Form.

END OF SECTION 013200

SUBMITTAL SCHEDULE FORM

Preliminary Submittal Schedule: Include submittals required during the first 60 days of construction.

Complete Submittal Schedule: Submit concurrently with the first complete submittal of Contractor's Construction Schedule.

Project:

From:

To:

Date:

Scheduled Initial Submittal Date	Spec Section		Type: <input type="checkbox"/> Action <input type="checkbox"/> Info Only	Name of Subcontractor	Description	Scheduled Date of Approval
	No.	Title				

End of Submittal Schedule Form

SECTION 013233 - PHOTOGRAPHIC DOCUMENTATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for the following:
 - 1. Video record at rough-in.

1.3 SUBMITTALS

- A. Video: Submit electronic files.
 - 1. CD.
 - 2. Printed Transcript.

PART 2 - PRODUCTS

2.1 VIDEO

- A. Video: Each room and hall way of rough-in; prior to application of gypsum board or sheathing.
- B. Identification: On each copy, provide an applied label with the following information:
 - 1. Name of Project.
 - 2. Name of Architect.
 - 3. Name of Contractor.
 - 4. Date of Recording.
- C. Format: MP4.
- D. Quality: HD.
- E. Medium: CD.
- F. Transcript: Prepared on 8-1/2-by-11-inch paper, punched and bound in heavy-duty, 3-ring, vinyl-covered binders. Mark appropriate identification on front and spine of each binder. Include a cover sheet with same label information as corresponding videotape. Include name of Project and date of video on each page.

PART 3 - EXECUTION

3.1 CONSTRUCTION VIDEO

- A. Narration: Describe scenes on video by audio narration by microphone while videotape is recorded. Include description of items being viewed and room number. At each change in location (room), describe construction.
 - 1. Confirm date and time at beginning and end of recording.

END OF SECTION 013233

SECTION 013300 - SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other submittals.
- B. Consult individual sections of specifications for specific submittals required under those sections and for further details and descriptions of requirements.

1.3 DEFINITIONS

- A. Action Submittals: Written and graphic information that requires Architect's responsive action.
- B. Informational Submittals: Written information that does not require Architect's responsive action. Submittals may be rejected for not complying with requirements.

1.4 SUBMITTAL PROCEDURES

- A. Processing: All costs for printing, preparing, packaging, submitting, mailing, or delivering submittals for initial submittals and all costs for re-printing, re-drawing, re-drafting, re-packaging, re-submitting, and re-mailing or re-delivering as required for all re-submittals shall be included in Contract Sum.
- B. Sequence: Transmit each submittal in sequence which will not result in Architect's approval having to be later modified or rescinded by reason of subsequent submittals which should have been processed earlier or concurrently for coordination.
- C. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
 - 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
 - 2. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.
 - a. Architect reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.

- D. Multiple Reviews: The Contractor may be responsible for all costs to Architect or Architect consultants for reviews requiring more than 2 reviews for same specification section.
- E. Processing Time: Allow enough time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Architect's receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.
 - 1. Review: Allow 10 days for review of each submittal. Architect will request for more time if needed.
- F. Identification: Place a permanent label or title block on each submittal for identification.
 - 1. Indicate name of firm or entity that prepared each submittal on label or title block.
 - 2. Provide a space approximately 6 by 8 inches on label or beside title block to record Contractor's review and approval markings and action taken by Architect.
 - 3. Include the following information on label for processing and recording action taken:
 - a. Project name.
 - b. Date.
 - c. Name and address of Architect.
 - d. Name and address of Contractor.
 - e. Name and address of subcontractor.
 - f. Name and address of supplier.
 - g. Name of manufacturer.
 - h. Each submittal number shall be unique as follows:
 - 1) Format shall be as follows:
 - a) Sequential Number - Revision Number - Project Specification Section Number (e.g., 1-1-09910). Do not use letters.
 - 2) Submittal number shall be sequential starting with 1 (e.g., 1-#-#####).
 - 3) First submittal for each section shall have number 1 as the "revision" number. (e.g., #-1-#####)
 - 4) Resubmittal for same specification section shall have same first digit as the original submittal and sequential second digit revision number (e.g., #-2-##### as in second submittal).
 - 5) Sample submittal log would look like the following in the submittal number column: Note that 1-2-09910 is second submittal.

Submittal Number
1-1-099100
1-2-099100 (revised submittal: shown for clarity)
2-1-055000
3-1-077200
 - i. Number and title of appropriate Specification Section.
 - j. Drawing number and detail references, as appropriate.
 - k. Location(s) where product is to be installed, as appropriate.
 - l. Other necessary identification.
- G. Deviations: Highlight, encircle, or otherwise specifically identify deviations from the Contract Documents on submittals.
- H. Additional Copies: Unless additional copies are required for final submittal, and unless Architect observes noncompliance with provisions in the Contract Documents, initial submittal may serve as final submittal.

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1. Submit one copy of submittal to concurrent reviewer in addition to specified number of copies to Architect.
 2. Additional copies submitted for maintenance manuals will not be marked with action taken and will be returned.
- I. Transmittal: Package each submittal individually and appropriately for transmittal and handling. Transmit each submittal using a transmittal form. Architect will return submittals, without review, received from sources other than Contractor.
1. Transmittal Form: Use AIA Document G810.
- J. Resubmittals: Make resubmittals in same form and number of copies as initial submittal.
1. Note date and content of previous submittal.
 2. Note date and content of revision in label or title block and clearly indicate extent of revision.
 3. Resubmit submittals until they are marked "Approved" or "Furnish as Noted".
- K. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.
- L. Use for Construction: Use only final submittals with mark indicating approval by Architect.

PART 2 - PRODUCTS

2.1 ACTION SUBMITTALS

- A. General: Prepare and submit Action Submittals required by individual Specification Sections.
- B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
1. If information must be specially prepared for submittal because standard printed data are not suitable for use, submit as Shop Drawings, not as Product Data.
 2. Mark each copy of each submittal to show which products and options are applicable.
 - a. Circle items applicable.
 - b. Cross-out items not applicable.
 - c. Select item number if required.
 3. Submittal data must include complete documentation relating to all the specified features
 4. Include the following information, as applicable:
 - a. Manufacturer's Submittal Form with all the options selected when available.
 - b. Manufacturer's written recommendations.
 - c. Manufacturer's product specifications.
 - d. Manufacturer's installation instructions.
 - e. Standard color charts.
 - f. Manufacturer's catalog cuts.
 - g. Wiring diagrams showing factory-installed wiring.
 - h. Printed performance curves.
 - i. Operational range diagrams.
 - j. Standard product operation and maintenance manuals at closeout.
 - k. Compliance with specified referenced standards.

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- l. Testing by recognized testing agency.
 - m. Application of testing agency labels and seals.
 - n. Notation of coordination requirements.
 5. Submit Product Data before or concurrent with Samples.
 6. Number of Copies: Submit 4 copies of Product Data, unless otherwise indicated. Architect will return 2 copies. Mark up and retain one returned copy as a Project Record Document.
- C. Shop Drawings: Prepare Project-specific information, drawn accurately to scale.
1. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:
 - a. Dimensions.
 - b. Identification of products.
 - c. Fabrication and installation drawings.
 - d. Roughing-in and setting diagrams.
 - e. Wiring diagrams showing field-installed wiring, including power, signal, and control wiring.
 - f. Shopwork manufacturing instructions.
 - g. Design calculations.
 - h. Compliance with specified standards.
 - i. Notation of coordination requirements.
 - j. Notation of dimensions established by field measurement.
 - k. Relationship to adjoining construction clearly indicated.
 - l. Seal and signature of professional engineer if specified.
 - m. Wiring Diagrams: Differentiate between manufacturer-installed and field-installed wiring.
 2. Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches but no larger than 30 by 40 inches.
 3. Number of Copies: Submit 4 sets of prints.
- D. Samples: Submit Samples for review of kind, color, pattern, and texture for a check of these characteristics with other elements and for a comparison of these characteristics between submittal and actual component as delivered and installed.
1. Transmit Samples that contain multiple, related components such as accessories together in one submittal package.
 2. Identification: Attach label on unexposed side of Samples that includes the following:
 - a. Generic description of Sample.
 - b. Product name and name of manufacturer.
 - c. Sample source.
 - d. Number and title of appropriate Specification Section.
 3. Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.
 - a. Samples that may be incorporated into the Work are indicated in individual Specification Sections. Such Samples must be in an undamaged condition at time of use.
 - b. Samples not incorporated into the Work, or otherwise designated as Owner's property, are the property of Contractor.
 4. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available.

- a. Number of Samples: Submit 1 full set of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line. Architect will return submittal with options selected.
5. Samples for Verification: Submit full-size units or Samples of size indicated, prepared from same material to be used for the Work, cured and finished in manner specified, and physically identical with material or product proposed for use, and that show full range of color and texture variations expected. Samples include, but are not limited to, the following: partial sections of manufactured or fabricated components; small cuts or containers of materials; complete units of repetitively used materials; swatches showing color, texture, and pattern; color range sets; and components used for independent testing and inspection.
 - a. Number of Samples: Submit three sets of Samples. Architect will retain two Sample sets; remainder will be returned. Mark up and retain one returned Sample set as a Project Record Sample.
 - 1) Submit a single Sample where assembly details, workmanship, fabrication techniques, connections, operation, and other similar characteristics are to be demonstrated.
 - 2) If variation in color, pattern, texture, or other characteristic is inherent in material or product represented by a Sample, submit at least three sets of paired units that show approximate limits of variations.
- E. Application for Payment: Comply with requirements specified in Division 1 Section "Payment Procedures."
- F. Schedule of Values: Comply with requirements specified in Division 1 Section "Payment Procedures."

2.2 INFORMATIONAL SUBMITTALS

- A. Welding Certificates: Prepare written certification that welding procedures and personnel comply with requirements in the Contract Documents. Submit record of Welding Procedure Specification (WPS) and Procedure Qualification Record (PQR) on AWS forms. Include names of firms and personnel certified.
- B. Installer Certificates: Prepare written statements on manufacturer's letterhead certifying that Installer complies with requirements in the Contract Documents and, where required, is authorized by manufacturer for this specific Project.
- C. Material Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents by owner.
- D. Product Test Reports: Prepare written reports indicating current product produced by manufacturer complies with requirements in the Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.

PART 3 - EXECUTION

3.1 CONTRACTOR'S REVIEW

- A. Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Architect.
 - 1. Coordinate the work; do not delegate responsibility for coordination to any subcontractor.
 - 2. Anticipate the interrelationship of all subcontractors and their relationship with the total work.
 - 3. Resolve differences or disputes between subcontractors and materials suppliers concerning coordination, interference, or extent of work between sections.
- B. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

3.2 ARCHITECT'S ACTION

- A. Removed.
- B. Action Submittals: Architect will review each submittal, make marks to indicate corrections or modifications required, and return it. Architect will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action taken.
- C. Partial submittals are not acceptable, will be considered nonresponsive, and will be returned without review.
- D. Submittals not required by the Contract Documents may not be reviewed and may be discarded.
- E. Architect's and Consultant's review shall neither be construed as complete check nor relieve the Contractor, Subcontractor, manufacturer, fabricator, or supplier from responsibility for any deficiency that may exist or from any departures or deviations from the requirements of the Contract unless the Contractor has, in writing, called the Architect's attention to the deviations at the time of submission as specified.

END OF SECTION 013300

SECTION 014000 - QUALITY REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for quality assurance and quality control.
- B. Testing and inspecting services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with the Contract Document requirements.
 - 1. Specific quality-assurance and -control requirements for individual construction activities are specified in the Sections that specify those activities. Requirements in those Sections may also cover production of standard products.
 - 2. Specified tests, inspections, and related actions do not limit Contractor's other quality-assurance and -control procedures that facilitate compliance with the Contract Document requirements.
 - 3. Requirements for Contractor to provide quality-assurance and -control services required by Architect, Owner, or authorities having jurisdiction are not limited by provisions of this Section.

1.3 DEFINITIONS

- A. Quality-Assurance Services: Activities, actions, and procedures performed before and during execution of the Work to guard against defects and deficiencies and substantiate that proposed construction will comply with requirements.
- B. Quality-Control Services: Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that actual products incorporated into the Work and completed construction comply with requirements. Services do not include contract enforcement activities performed by Architect.
- C. Mockups:
 - 1. Full-size, physical assemblies that are constructed on-site. Mockups are used to verify selections made under sample submittals, to demonstrate aesthetic effects and, where indicated, qualities of materials and execution, and to review construction, coordination, testing, or operation; they are not Samples. Approved mockups establish the standard by which the Work will be judged.
 - 2. Comprehensive, completely integrated mockups of separate trades showing interface conditions, transitions, and relationships between materials and finishes.

- D. Product Testing: Tests and inspections that are performed by an NRTL, an NVLAP, or a testing agency qualified to conduct product testing and acceptable to authorities having jurisdiction, to establish product performance and compliance with industry standards.
- E. Source Quality-Control Testing: Tests and inspections that are performed at the source, i.e., plant, mill, factory, or shop.
- F. Field Quality-Control Testing: Tests and inspections that are performed on-site for installation of the Work and for completed Work.
- G. Testing Agency: An entity engaged to perform specific tests, inspections, or both. Testing laboratory shall mean the same as testing agency.
- H. Installer/Applicator/Erector: Contractor or another entity engaged by Contractor as an employee, Subcontractor, or Sub-subcontractor, to perform a particular construction operation, including installation, erection, application, and similar operations.
 - 1. Using a term such as "carpentry" does not imply that certain construction activities must be performed by accredited or unionized individuals of a corresponding generic name, such as "carpenter." It also does not imply that requirements specified apply exclusively to tradespeople of the corresponding generic name.
- I. Experienced: When used with an entity, "experienced" means having successfully completed a minimum of 5 previous projects similar in size and scope to this Project; being familiar with special requirements indicated; and having complied with requirements of authorities having jurisdiction.

1.4 CONFLICTING REQUIREMENTS

- A. General: If compliance with two or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement. Refer uncertainties and requirements that are different, but apparently equal, to Architect for a decision before proceeding.
- B. Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of requirements. Refer uncertainties to Architect for a decision before proceeding.

1.5 SUBMITTALS

- A. Qualification Data: For testing agencies specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include proof of qualifications in the form of a recent report on the inspection of the testing agency by a recognized authority.
- B. Schedule of Tests and Inspections: Prepare in tabular form and include the following:
 - 1. Specification Section number and title.
 - 2. Description of test and inspection.

3. Identification of applicable standards.
 4. Identification of test and inspection methods.
 5. Number of tests and inspections required.
 6. Time schedule or time span for tests and inspections.
 7. Entity responsible for performing tests and inspections.
 8. Requirements for obtaining samples.
 9. Unique characteristics of each quality-control service.
- C. Reports: Prepare and submit certified written reports that include the following:
1. Date of issue.
 2. Project title and number.
 3. Name, address, and telephone number of testing agency.
 4. Dates and locations of samples and tests or inspections.
 5. Names of individuals making tests and inspections.
 6. Description of the Work and test and inspection method.
 7. Identification of product and Specification Section.
 8. Complete test or inspection data.
 9. Test and inspection results and an interpretation of test results.
 10. Record of temperature and weather conditions at time of sample taking and testing and inspecting.
 11. Comments or professional opinion on whether tested or inspected Work complies with the Contract Document requirements.
 12. Name and signature of laboratory inspector.
 13. Recommendations on retesting and reinspecting.
- D. Permits, Licenses, and Certificates: For Owner's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents, established for compliance with standards and regulations bearing on performance of the Work.

1.6 QUALITY ASSURANCE

- A. General: Qualifications paragraphs in this Article establish the minimum qualification levels required; individual Specification Sections specify additional requirements.
- B. Installer Qualifications: A firm or individual experienced in installing, erecting, or assembling work similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance.
- C. Manufacturer Qualifications: A firm experienced in manufacturing products or systems similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- D. Fabricator Qualifications: A firm experienced in producing products similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- E. Professional Engineer Qualifications: A licensed professional engineer who is legally qualified to practice in California and who is experienced in providing engineering services of the kind indicated. Engineering services are defined as those performed for installations of the system,

assembly, or product that are similar to those indicated for this Project in material, design, and extent.

- F. Specialists: Certain sections of the Specifications require that specific construction activities shall be performed by entities who are recognized experts in those operations. Specialists shall satisfy qualification requirements indicated and shall be engaged for the activities indicated.
 - 1. Requirement for specialists shall not supersede building codes and regulations governing the Work.
- G. Testing Agency Qualifications: An NRTL, an NVLAP, or an independent agency with the experience and capability to conduct testing and inspecting indicated, as documented according to ASTM E 548; and with additional qualifications specified in individual Sections; and where required by authorities having jurisdiction, that is acceptable to authorities.
 - 1. NRTL: A nationally recognized testing laboratory according to 29 CFR 1910.7.
 - 2. NVLAP: A testing agency accredited according to NIST's National Voluntary Laboratory Accreditation Program.
- H. Factory-Authorized Service Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
- I. Mockups: Before installing portions of the Work requiring mockups, build mockups for each form of construction and finish required to comply with the following requirements, using materials indicated for the completed Work:
 - 1. Build mockups in location and of size indicated or, if not indicated, as directed by Architect.
 - 2. Notify Architect 7 days in advance of dates and times when mockups will be constructed.
 - 3. Demonstrate the proposed range of aesthetic effects and workmanship.
 - 4. Obtain Architect's approval of mockups before starting work, fabrication, or construction.
 - 5. Maintain mockups during construction in an undisturbed condition as a standard for judging the completed Work.
 - 6. Demolish and remove mockups when directed, unless otherwise indicated.

1.7 QUALITY CONTROL

- A. Manufacturer's Field Services: Where indicated, engage a factory-authorized service representative to inspect field-assembled components and equipment installation, including service connections. Report results in writing as specified in Division 1 Section "Submittal Procedures."
- B. Retesting/Reinspecting: Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services, including retesting and reinspecting, for construction that replaced Work that failed to comply with the Contract Documents.
- C. Coordination: Coordinate sequence of activities to accommodate required quality-assurance and -control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspecting.
 - 1. Schedule times for tests, inspections, obtaining samples, and similar activities.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 Removed.

3.2 REPAIR AND PROTECTION

- A. General: On completion of testing, inspecting, sample taking, and similar services, repair damaged construction and restore substrates and finishes.
 - 1. Provide materials and comply with installation requirements specified in other Specification Sections. Restore patched areas and extend restoration into adjoining areas with durable seams that are as invisible as possible.
- B. Protect construction exposed by or for quality-control service activities.
- C. Repair and protection are Contractor's responsibility, regardless of the assignment of responsibility for quality-control services.

END OF SECTION 014000

SECTION 014200 - REFERENCES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes list of references.

1.3 DEFINITIONS

- A. General: Basic Contract definitions are included in the Conditions of the Contract.
- B. "AHJ": Agency having jurisdiction.
- C. "Approved": When used to convey Architect's action on Contractor's submittals, applications, and requests, "approved" is limited to Architect's duties and responsibilities as stated in the Conditions of the Contract.
- D. "Compatible": When used for products, it shall comply with requirements including products recommended/ required by the manufacturer for warrantee acceptance.
- E. "Directed": A command or instruction by Architect. Other terms including "requested," "authorized," "selected," "approved," "required," and "permitted" have the same meaning as "directed."
- F. "Indicated": Requirements expressed by graphic representations or in written form on Drawings, in Specifications, and in other Contract Documents. Other terms including "shown," "noted," "scheduled," and "specified" have the same meaning as "indicated."
- G. "Regulations": Laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, and rules, conventions, and agreements within the construction industry that control performance of the Work.
- H. "Furnish": Supply and deliver to Project site, ready for unloading, unpacking, assembly, installation, and similar operations.
- I. "Install": Operations at Project site including unloading, temporarily storing, unpacking, assembling, erecting, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations.
- J. "Owner": As defined in Division 1 section "Summary".

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- K. "Provide": Furnish and install, complete and ready for the intended use.
- L. "Project Site": Space available for performing construction activities. The extent of Project site is shown on Drawings and may or may not be identical with the description of the land on which Project is to be built.

1.4 INDUSTRY STANDARDS

- A. **Applicability of Standards:** Unless the Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the Contract Documents to the extent referenced. Such standards are made a part of the Contract Documents by reference.
- B. **Publication Dates:** Comply with standards in effect as of date of the Contract Documents, unless otherwise indicated.
- C. **Copies of Standards:** Each entity engaged in construction on Project should be familiar with industry standards applicable to its construction activity. Copies of applicable standards are not bound with the Contract Documents.
 - 1. Where copies of standards are needed to perform a required construction activity, obtain copies directly from publication source.
 - 2. Copies of standards and applicable building codes (Title 24 Parts 1-5) shall be kept on-site during construction.
- D. **Abbreviations and Acronyms for Standards and Regulations:** Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the standards and regulations.
- E. **Code Agencies:** Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized names.
- F. **Federal Government Agencies:** Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized names.
- G. **State Government Agencies:** Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized names.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 014200

SECTION 015000 - TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes requirements for temporary utilities, support facilities, and security and protection facilities.

1.3 DEFINITIONS

- A. Permanent Enclosure: As determined by Architect, permanent or temporary roofing is complete, insulated, and weathertight; exterior walls are insulated and weathertight; and all openings are closed with permanent construction or substantial temporary closures.

1.4 USE CHARGES

- A. General: Allow other entities to use temporary services and facilities without cost, including, but not limited to, Owner's construction forces, Architect, occupants of Project, testing agencies, and authorities having jurisdiction.
- B. Sewer Service:
 - 1. Pay sewer service use charges for sewer usage by all entities for construction operations.
- C. Water Service:
 - 1. Pay water service use charges for water used by all entities for construction operations.
- D. Electric Power Service:
 - 1. Pay electric power service use charges for electricity used by all entities for construction operations.
- E. Sanitary Facilities:
 - 1. Pay sanitary service use charge for temporary toilets, wash facilities, and drinking water for use of construction personnel.

1.5 SUBMITTALS

- A. Site Plan: Show temporary facilities, utility hookups, staging areas, and parking areas for construction personnel.

1.6 QUALITY ASSURANCE

- A. Electric Service: Comply with NECA, NEMA, and UL standards and regulations for temporary electric service. Install service to comply with 2010 CEC.
- B. Tests and Inspections: Arrange for authorities having jurisdiction to test and inspect each temporary utility before use. Obtain required certifications and permits.

1.7 PROJECT CONDITIONS

- A. Temporary Use of Permanent Facilities: Installer of each permanent service shall assume responsibility for operation, maintenance, and protection of each permanent service during its use as a construction facility before Owner's acceptance, regardless of previously assigned responsibilities.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Wind Screen Fabric: Green.

2.2 TEMPORARY FIELD OFFICES

- A. Sufficient size to accommodate needs of construction personnel. Keep office clean and orderly.

2.3 EQUIPMENT

- A. Fire Extinguishers: Portable, UL rated; with class and extinguishing agent as required by locations and classes of fire exposures. Minimum rated at Class 2A-10B:C.
- B. HVAC Equipment: Unless Owner authorizes use of permanent HVAC system, provide vented, self-contained, electric, liquid-propane-gas or fuel-oil heaters with individual space thermostatic control.
 - 1. Use of gasoline-burning space heaters, open-flame heaters, or salamander-type heating units is prohibited.
 - 2. Heating Units: Listed and labeled for type of fuel being consumed, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
 - 3. Permanent HVAC System: If Owner authorizes use of permanent HVAC system for temporary use during construction, provide filter with MERV of 8 at each return air grille in system and remove at end of construction.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

- A. Locate facilities where they will serve Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required by progress of the Work.
- B. Provide each facility ready for use when needed to avoid delay. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

3.2 TEMPORARY UTILITY INSTALLATION

- A. General: Install temporary service or connect to existing service.
 - 1. Arrange with utility company, Owner, and existing users for time when service can be interrupted, if necessary, to make connections for temporary services.
- B. Sewers and Drainage: Provide temporary utilities to remove effluent lawfully.
 - 1. Connect temporary sewers to municipal system as directed by authorities having jurisdiction.
- C. Water Service: Install water service and distribution piping in sizes and pressures adequate for construction.
- D. Sanitary Facilities: Install temporary toilets, wash facilities, and drinking water for use of construction personnel. Comply with authorities having jurisdiction for type, number, location, operation, and maintenance of fixtures and facilities.
- E. Heating and Cooling: Install temporary heating and cooling required by construction activities for curing or drying of completed installations or for protecting installed construction from adverse effects of low temperatures or high humidity. Select equipment that will not have a harmful effect on completed installations or elements being installed.
- F. Ventilation and Humidity Control: Install temporary ventilation required by construction activities for curing or drying of completed installations or for protecting installed construction from adverse effects of high humidity. Select equipment that will not have a harmful effect on completed installations or elements being installed. Coordinate ventilation requirements to produce ambient condition required and minimize energy consumption.
- G. Electric Power Service: Install electric power service and distribution system of sufficient size, capacity, and power characteristics required for construction operations.
- H. Lighting: Install temporary lighting with local switching that provides adequate illumination for construction operations, observations, inspections, and traffic conditions.
 - 1. Install and operate temporary lighting that fulfills security and protection requirements without operating entire system.
 - 2. Install lighting for Project identification sign.

3.3 SUPPORT FACILITIES INSTALLATION

- A. Traffic Controls: Comply with requirements of authorities having jurisdiction.
 - 1. Protect existing site improvements to remain including curbs, pavement, and utilities.
 - 2. Maintain access for fire-fighting equipment and access to fire hydrants.
- B. Parking: Provide temporary or use designated areas of Owner's existing parking areas if approved for construction personnel.
- C. Dewatering Facilities and Drains: Comply with requirements of authorities having jurisdiction. Maintain Project site, excavations, and construction free of water.
 - 1. Dispose of rainwater in a lawful manner that will not result in flooding Project or adjoining properties nor endanger permanent Work or temporary facilities.
 - 2. Remove snow and ice as required to minimize accumulations.
- D. Project Identification and Temporary Signs: Provide Project identification. Install signs where directed to inform public and individuals seeking entrance to Project. Unauthorized signs are not permitted.
 - 1. Provide temporary, directional signs for construction personnel and visitors.
 - 2. Maintain and touchup signs so they are legible at all times.
 - 3. Provide a 4'-0" x 8'-0" project sign constructed of 1/2 inch plywood or 10 mil corrugated mounted to 4"x4" posts 8'-0" long set 2'-0" deep into earth.
 - 4. Project sign shall include a graphic of the building (available from the Architect), Architect, Consultants, Owner, project, funding members with titles, and Contractor with contact information for the contractor. Text and layout shall be submitted for approval prior to installation.
 - 5. Location of project sign shall be coordinated with Owner's representative.
- E. Waste Disposal Facilities: Provide waste-collection containers in sizes adequate to handle waste from construction operations. Comply with requirements of authorities having jurisdiction. Comply with Division 1 Section "Execution Requirements" for progress cleaning requirements.
- F. Lifts and Hoists: Provide facilities necessary for hoisting materials and personnel.
 - 1. Truck cranes and similar devices used for hoisting materials are considered "tools and equipment" and not temporary facilities.
- G. Temporary Stairs: Until permanent stairs are available, provide temporary stairs where ladders are not adequate.
- H. Temporary Use of Permanent Stairs: Cover finished, permanent stairs with protective covering of plywood or similar material so finishes will be undamaged at time of acceptance.

3.4 SECURITY AND PROTECTION FACILITIES INSTALLATION

- A. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction in ways and by methods that comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.
 - 1. Comply with work restrictions specified in Division 1 Section "Summary."

- B. Temporary Erosion and Sedimentation Control: Provide measures to prevent soil erosion and discharge of soil-bearing water runoff and airborne dust to adjacent properties and walkways, according to requirements of authorities having jurisdiction.
 - 1. Inspect, repair, and maintain erosion- and sedimentation-control measures during construction until permanent vegetation has been established.
- C. Stormwater Control: Comply with authorities having jurisdiction. Provide barriers in and around excavations and subgrade construction to prevent flooding by runoff of stormwater from heavy rains.
- D. Tree and Plant Protection: Install temporary fencing located as indicated or outside the drip line of trees to protect vegetation from damage from construction operations. Protect tree root systems from damage, flooding, and erosion.
- E. Site Enclosure Fence: Before construction operations begin, furnish and install site enclosure fence in a manner that will prevent people and animals from easily entering site except by entrance gates.
 - 1. Extent of Fence: As required to enclose Project site or portion determined sufficient to accommodate construction operations or as indicated on Drawings.
 - 2. Maintain security by limiting number of keys and restricting distribution to authorized personnel.
- F. Install full coverage with green wind screen fabric on temp. fencing to block viewing through construction fencing. Wind screen fabric shall be anchored or weighted sufficiently to resist design wind loads indicated on Drawings.
- G. Security Enclosure and Lockup: Install substantial temporary enclosure around partially completed areas of construction. Provide lockable entrances to prevent unauthorized entrance, vandalism, theft, and similar violations of security.
- H. Barricades, Warning Signs, and Lights: Comply with requirements of authorities having jurisdiction for erecting structurally adequate barricades, including warning signs and lighting.
- I. Covered Walkway: Erect structurally adequate, protective, covered walkway for passage of individuals along adjacent public street(s). Coordinate with entrance gates, other facilities, and obstructions. Comply with regulations of authorities having jurisdiction.
 - 1. Construct covered walkways using scaffold or shoring framing.
 - 2. Provide wood-plank overhead decking, protective plywood enclosure walls, handrails, barricades, warning signs, lights, safe and well-drained walkways, and similar provisions for protection and safe passage.
 - 3. Extend back wall beyond the structure to complete enclosure fence.
 - 4. Paint and maintain in a manner approved by Owner and Architect.
- J. Temporary Enclosures: Provide temporary enclosures for protection of construction, in progress and completed, from exposure, foul weather, other construction operations, and similar activities. Provide temporary weathertight enclosure for building exterior.
 - 1. Where heating or cooling is needed and permanent enclosure is not complete, insulate temporary enclosures.
- K. Temporary Partitions: Provide floor-to-ceiling dustproof partitions to limit dust and dirt migration and to separate areas occupied by Owner and tenants from fumes and noise.

1. Construct dustproof partitions with gypsum wallboard with joints taped on occupied side, and fire-retardant plywood on construction operations side.
 2. Construct dustproof partitions with 2 layers of 3-mil polyethylene sheet on each side. Cover floor with 2 layers of 3-mil polyethylene sheet, extending sheets 18 inches up the sidewalls. Overlap and tape full length of joints. Cover floor with fire-retardant plywood.
 - a. Construct vestibule and airlock at each entrance through temporary partition with not less than 48 inches between doors. Maintain water-dampened foot mats in vestibule.
 3. Insulate partitions to provide noise protection to occupied areas.
 4. Seal joints and perimeter. Equip partitions with dustproof doors and security locks.
 5. Protect air-handling equipment.
 6. Weather strip openings.
 7. Provide walk-off mats at each entrance through temporary partition.
- L. Temporary Fire Protection: Install and maintain temporary fire-protection facilities of types needed to protect against reasonably predictable and controllable fire losses. Comply with 2010 CFC Chapter 14.
1. Prohibit smoking in construction areas.
 2. Supervise welding operations, combustion-type temporary heating units, and similar sources of fire ignition according to requirements of authorities having jurisdiction.
 3. Develop and supervise an overall fire-prevention and -protection program for personnel at Project site. Review needs with local fire department and establish procedures to be followed. Instruct personnel in methods and procedures. Post warnings and information.
 4. Provide temporary standpipes and hoses for fire protection. Hang hoses with a warning sign stating that hoses are for fire-protection purposes only and are not to be removed. Match hose size with outlet size and equip with suitable nozzles.

3.5 OPERATION, TERMINATION, AND REMOVAL

- A. Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.
- B. Maintenance: Maintain facilities in good operating condition until removal.
 1. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation, and similar facilities on a 24-hour basis where required to achieve indicated results and to avoid possibility of damage.
- C. Temporary Facility Changeover: Do not change over from using temporary security and protection facilities to permanent facilities until Substantial Completion.
- D. Termination and Removal: Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.
 1. Materials and facilities that constitute temporary facilities are property of Contractor. Owner reserves right to take possession of Project identification signs.
 2. At Substantial Completion, clean and renovate permanent facilities used during construction period.

OCFA Fire Station #4
Construction Documents

END OF SECTION 015000

SECTION 016000 - PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for selection of products for use in Project; product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; and product substitutions.
- B. Related Sections include the following:
 - 1. Division 1 Section "References" for applicable industry standards for products specified.
 - 2. Division 1 Section "Closeout Procedures" for submitting warranties for Contract closeout.
 - 3. Other Sections for specific requirements for warranties on products and installations specified to be warranted.

1.3 DEFINITIONS

- A. Products: Items purchased for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
 - 1. Named Products: Items identified by manufacturer's product name, including make or model number or other designation shown or listed in manufacturer's published product literature, that is current as of date of the Contract Documents.
 - 2. New Products: Items that have not previously been incorporated into another project or facility. Products salvaged or recycled from other projects are not considered new products.
- B. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor. Proposed products by manufacturers not listed in Manufacturers list.
- C. Basis-of-Design: Where a specific manufacturer's product is named and accompanied by the words "basis of design," including make or model number or other designation, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics for purposes of evaluating "or equal" products of other named manufacturers.

1.4 SUBMITTALS

- A. Removed.
- B. Substitution Requests: Submit 4 copies of each request for consideration. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
 - 1. Substitution Request Form: Use form provided at end of Section.
 - 2. Documentation: Show compliance with requirements for substitutions and the following, as applicable:
 - a. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
 - b. Samples, where applicable or requested.
 - c. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.
 - 3. Architect's Action: Architect will notify Contractor of acceptance or rejection of proposed substitution within 10 days of receipt of request.
 - a. Form of Acceptance: Change Order.
 - b. Use product specified if Architect cannot make a decision on use of a proposed substitution within time allocated.
- C. Named Product and Basis-of-Design Product Specification Submittal: Comply with requirements in Division 1 Section "Submittal Procedures." Show compliance with requirements.

1.5 QUALITY ASSURANCE

- A. Compatibility of Options: If Contractor is given option of selecting between two or more products for use on Project, product selected shall be compatible with products previously selected, even if previously selected products were also options.
 - 1. If a dispute arises between contractors over concurrently selectable but incompatible products, Architect will determine which products shall be used.

1.6 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft. Comply with manufacturer's written instructions.
- B. Delivery and Handling:
 - 1. Schedule delivery to minimize long-term storage at Project site and to prevent overcrowding of construction spaces.
 - 2. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
 - 3. Deliver products to Project site in an undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.

4. Inspect products on delivery to ensure compliance with the Contract Documents and to ensure that products are undamaged and properly protected.
- C. Storage:
1. Store products to allow for inspection and measurement of quantity or counting of units.
 2. Store materials in a manner that will not endanger Project structure.
 3. Store products that are subject to damage by the elements, under cover in a weathertight enclosure above ground, with ventilation adequate to prevent condensation.
 4. Store cementitious products and materials on elevated platforms.
 5. Store foam plastic from exposure to sunlight, except to extent necessary for period of installation and concealment.
 6. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
 7. Protect stored products from damage and liquids from freezing.
 8. Provide a secure location and enclosure at Project site for storage of materials and equipment by Owner's construction forces. Coordinate location with Owner.

1.7 PRODUCT WARRANTIES

- A. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of the Contract Documents.
1. Manufacturer's Warranty: Preprinted written warranty published by individual manufacturer for a particular product and specifically endorsed by manufacturer to Owner.
 2. Special Warranty: Written warranty required by or incorporated into the Contract Documents, either to extend time limit provided by manufacturer's warranty or to provide more rights for Owner.
- B. Special Warranties: Prepare a written document that contains appropriate terms and identification, ready for execution. Submit a draft for approval before final execution.
1. Manufacturer's Standard Form: Modified to include Project-specific information and properly executed.
 2. Specified Form: When specified forms are included with the Specifications, prepare a written document using appropriate form properly executed.
 3. Refer to other sections for specific content requirements and particular requirements for submitting special warranties.
- C. Warranty Period: Warranty period specified in each sections are minimum requirements. Do not modify manufacturer's standard warranty period if the manufacturer's warranty has longer warranty period.
- D. Submittal Time: Comply with requirements in Division 1 Section "Closeout Procedures."

PART 2 - PRODUCTS

2.1 PRODUCT SELECTION PROCEDURES

- A. General Product Requirements: Provide products that comply with the Contract Documents, that are undamaged and, unless otherwise indicated, that are new at time of installation.
1. Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.
 2. Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types that have been produced and used successfully in similar situations on other projects.
 3. Owner reserves the right to limit selection to products with warranties not in conflict with requirements of the Contract Documents.
 4. Where products are accompanied by the term "as selected," Architect will make selection.
 5. Where products are accompanied by the term "match sample," sample to be matched is Architect's.
 6. Descriptive, performance, and reference standard requirements in the Specifications establish "salient characteristics" of products.
- B. Product Selection Procedures:
1. Product: Where Specifications name a single product and manufacturer, provide the named product that complies with requirements.
 2. Manufacturer/Source: Where Specifications name a single manufacturer or source, provide a product by the named manufacturer or source that complies with requirements.
 3. Products: Where Specifications include a list of names of both products and manufacturers, provide one of the products listed that complies with requirements.
 4. Manufacturers: Where Specifications include a list of manufacturers' names, provide a product by one of the manufacturers listed that complies with requirements.
 5. Basis-of-Design Product: Where Specifications name a product and include a list of manufacturers, provide the specified product or an equal product by one of the other named manufacturers. Drawings and Specifications indicate sizes, profiles, dimensions, and other characteristics that are based on the product named. Comply with "or equal".
 6. Or Equal: Where products are specified by name and accompanied by the term "or equal" or "or approved equal" or "or approved," comply with provisions in Part 2 "Product Substitutions" Article to obtain approval by Architect for use of an unnamed product.
 7. Visual Matching Specification: Where Specifications require matching an established Sample, select a product that complies with requirements and matches Architect's sample. Architect's decision will be final on whether a proposed product matches.
 - a. If no product available within specified category matches and complies with other specified requirements, comply with provisions in Part 2 "Product Substitutions" Article for proposal of product.
 8. Visual Selection Specification: Where Specifications include the phrase "as selected from manufacturer's colors, patterns, textures" or a similar phrase, select a product that complies with other specified requirements.
 - a. Standard Range: Where Specifications include the phrase "standard range of colors, patterns, textures" or similar phrase, Architect will select color, pattern, density, or texture from manufacturer's product line that does not include custom or premium items.

- b. Full Range: Where Specifications include the phrase "full range of colors, patterns, textures" or similar phrase, Architect will select color, pattern, density, or texture from manufacturer's product line that includes standard, custom, and premium items.

2.2 PRODUCT SUBSTITUTIONS

- A. Timing: Architect will consider requests for substitution if received within 35 days after the Notice to Proceed. Requests received after that time may be considered or rejected at discretion of Architect.
- B. Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:
 - 1. Requested substitution offers Owner a substantial advantage in cost, time, energy conservation, or other considerations, after deducting additional responsibilities Owner must assume. Owner's additional responsibilities may include compensation to Architect for redesign and evaluation services, increased cost of other construction by Owner, and similar considerations.
 - 2. Requested substitution does not require extensive revisions to the Contract Documents.
 - 3. Requested substitution is consistent with the Contract Documents and will produce indicated results.
 - 4. Substitution request is fully documented and properly submitted.
 - 5. Requested substitution will not adversely affect Contractor's Construction Schedule.
 - 6. Requested substitution has received necessary approvals of authorities having jurisdiction and has paid any fees.
 - 7. Requested substitution is compatible with other portions of the Work.
 - 8. Requested substitution has been coordinated with other portions of the Work.
 - 9. Requested substitution provides specified warranty.
 - 10. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.
 - 11. Furnish samples upon requested by Architect.
 - 12. Attached Request for Substitution Form shall used for substitution requests.

PART 3 - EXECUTION

3.1 FORMS

- A. Electronic versions of attached forms will be provided upon request.
 - 1. Product List Form.
 - 2. Similar Installation List Form.
 - 3. Substitution Request Form.

END OF SECTION 016000

SUBSTITUTION REQUEST FORM

Substitutions are only allowed within number of days specified. Use this for m for requesting "or equal" products and materials.

Project:	Substitution Request Number:
	From:
To:	Date:
	Project Number:

Specification Section Title:		
Section Number:	Page:	Article/Paragraph:
Specified Item:		

Proposed Substitution:	
Manufacturer:	Address:
Contact Name:	Phone Number:
<input type="checkbox"/> Comparison between proposed substitution and specified product is attached. Note all differences.	

Reason for not using specified item:

- Specified product is no longer available.
- Substitution will improve lead time by _____ days
- Substitution will save Owner \$ _____
- Other:

- List 3 similar installations including project name, address, owner, and date installed is attached.
Proposed substitution affects other parts of Work: No Yes; explanation attached.

Supporting Data Attached:

- Product Data (indicate any options to be included)
 Drawings Test Reports Samples Color Chart Other:

Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable is available.
- Proposed substitution will not affect or delay Construction Progress Schedule.
- Cost data as stated above is complete. Claims for additional costs related to accepted substitution which may subsequently become apparent are to be waived.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including architectural or engineering design, detailing, and construction costs caused by the requested substitution.
- Coordination, installation, and changes in the Work as necessary for accepted substitution will be complete in all respects.

- Substitutions for products or systems involving structural, fire/life safety and access compliance will require AHJ approval. This will add time required to review those substitutions requiring AHJ approval. Contractor is solely responsible for all documentation, cost, and time required to obtain AHJ approval.

Submitted by:	Firm:
Signature:	Date:
Comments:	

A/E Review:

- Approve Substitution.
- Approve Substitution as Noted.
- Reject Substitution. Use specified product.
- Reject Substitution. Use specified product. Substitution request received too late.

Signed by:	Date:
Comments:	

Owner's Review and Action (Approval of substitution is not valid without Owner's signature)

- Substitution approved.
- Substitution approved as Noted.
- Substitution rejected. Use specified product.

Signed by:	Date:
Comments:	

End of Substitution Request Form

PRODUCT LIST FORM

- Preliminary Product List.
- Complete Product List.

Include a written explanation for omissions of data and for variations from Contract requirements.

Project: _____ From: _____

To: _____ Date: _____

Spec Section		Early approval? <input type="checkbox"/> Yes <input type="checkbox"/> No	Product	Model No.	Manufacturer	Supplier	Installer	Delivery Date
No.	Title							

End of Product List Form

SIMILAR INSTALLATION LIST FORM

Provide minimum 5 similar installations within last 3 years.

Project: _____ From: _____

To: _____ Date: _____

	Date of Installation	Project Name	Owner Info	GC Info	Architect info
1					
2					
3					
4					
5					
6					
7					
8					

End of Previous Project List Form

SECTION 017300 - EXECUTION REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes general procedural requirements governing execution of the Work including, but not limited to, the following:
 1. Construction layout.
 2. Field engineering and surveying.
 3. General installation of products.
 4. Coordination of Owner-installed products.
 5. Progress cleaning.
 6. Starting and adjusting.
 7. Protection of installed construction.
 8. Correction of the Work.

1.3 SUBMITTALS

- A. Qualification Data: For professional engineer.
- B. Certificates: Submit certificate signed by professional engineer certifying that location and elevation of improvements comply with requirements.
- C. Landfill Receipts: Submit copy of receipts issued by a landfill facility, licensed to accept hazardous materials, for hazardous waste disposals as applicable.
- D. Certified Surveys: Submit 2 copies signed by professional engineer.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Existing Conditions: The existence and location of site improvements, utilities, and other construction indicated as existing are not guaranteed. Before beginning work, investigate and verify the existence and location of mechanical and electrical systems and other construction affecting the Work.

1. Before construction, verify the location and points of connection of utility services.
- B. Existing Utilities: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning sitework, investigate and verify the existence and location of underground utilities and other construction affecting the Work.
1. Before construction, verify the location and invert elevation at points of connection of sanitary sewer, storm sewer, gas, and water-service piping; and underground electrical services.
 2. Furnish location data for work related to Project that must be performed by public utilities serving Project site.
- C. Acceptance of Conditions: Examine substrates, areas, and conditions, with Installer or Applicator present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.
1. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
 2. Examine roughing-in for mechanical and electrical systems to verify actual locations of connections before equipment and fixture installation.
 3. Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed.
 4. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

3.2 PREPARATION

- A. Existing Utility Information: Furnish information to local utility and Owner that is necessary to adjust, move, or relocate existing utility structures, utility poles, lines, services, or other utility appurtenances located in or affected by construction. Coordinate with authorities having jurisdiction.
- B. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
- C. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.
- D. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents, submit a request for information to Architect. Include a detailed description of problem encountered, together with recommendations for changing the Contract Documents.

3.3 CONSTRUCTION LAYOUT

- A. Verification: Before proceeding to lay out the Work, verify layout information shown on Drawings, in relation to the property survey and existing benchmarks. If discrepancies are discovered, notify Architect promptly.
- B. General: Engage a professional engineer to lay out the Work using accepted surveying practices.
 - 1. Establish benchmarks and control points to set lines and levels at each story of construction and elsewhere as needed to locate each element of Project.
 - 2. Establish dimensions within tolerances indicated. Do not scale Drawings to obtain required dimensions.
 - 3. Inform installers of lines and levels to which they must comply.
 - 4. Check the location, level and plumb, of every major element as the Work progresses.
 - 5. Notify Architect when deviations from required lines and levels exceed allowable tolerances.
 - 6. Close site surveys with an error of closure equal to or less than the standard established by authorities having jurisdiction.
- C. Site Improvements: Locate and lay out site improvements, including pavements, grading, fill and topsoil placement, utility slopes, and invert elevations.
- D. Building Lines and Levels: Locate and lay out control lines and levels for structures, building foundations, column grids, and floor levels, including those required for mechanical and electrical work. Transfer survey markings and elevations for use with control lines and levels. Level foundations and piers from two or more locations.
- E. Record Log: Maintain a log of layout control work. Record deviations from required lines and levels. Include beginning and ending dates and times of surveys, weather conditions, name and duty of each survey party member, and types of instruments and tapes used. Make the log available for reference by Architect.

3.4 FIELD ENGINEERING

- A. Certified Survey: On completion of foundation walls, major site improvements, and other work requiring field-engineering services, prepare a certified survey showing dimensions, locations, angles, and elevations of construction and sitework.
- B. Final Property Survey: Prepare a final property survey showing significant features (real property) for Project. Include on the survey a certification, signed by professional engineer, that principal metes, bounds, lines, and levels of Project are accurately positioned as shown on the survey.
 - 1. Show boundary lines, monuments, streets, site improvements and utilities, existing improvements and significant vegetation, adjoining properties, acreage, grade contours, and the distance and bearing from a site corner to a legal point.
 - 2. Recording: At Substantial Completion, have the final property survey recorded by or with authorities having jurisdiction as the official "property survey."

3.5 INSTALLATION

- A. General: Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.
 - 1. Make vertical work plumb and make horizontal work level.
 - 2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.
 - 3. Conceal pipes, ducts, and wiring in finished areas, unless otherwise indicated.
 - 4. Maintain minimum headroom clearance of 8 feet in spaces without a suspended ceiling.
- B. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.
- C. Install products at the time and under conditions that will ensure the best possible results. Maintain conditions required for product performance until Substantial Completion.
- D. Conduct construction operations so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy.
- E. Tools and Equipment: Do not use tools or equipment that produce harmful noise levels.
- F. Templates: Obtain and distribute to the parties involved templates for work specified to be factory prepared and field installed. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing products to comply with indicated requirements.
- G. Anchors and Fasteners: Provide anchors and fasteners as required to anchor each component securely in place, accurately located and aligned with other portions of the Work.
 - 1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by Architect.
 - 2. Allow for building movement, including thermal expansion and contraction.
 - 3. Coordinate installation of anchorages. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.
- H. Joints: Make joints of uniform width. Where joint locations in exposed work are not indicated, arrange joints for the best visual effect. Fit exposed connections together to form hairline joints.
- I. Hazardous Materials: Use products, cleaners, and installation materials that are not considered hazardous.

3.6 OWNER-INSTALLED PRODUCTS

- A. Site Access: Provide access to Project site for Owner's construction forces.
- B. Coordination: Coordinate construction and operations of the Work with work performed by Owner's construction forces.
 - 1. Construction Schedule: Inform Owner of Contractor's preferred construction schedule for Owner's portion of the Work. Adjust construction schedule based on a mutually

agreeable timetable. Notify Owner if changes to schedule are required due to differences in actual construction progress.

2. Preinstallation Conferences: Include Owner's construction forces at preinstallation conferences covering portions of the Work that are to receive Owner's work. Attend preinstallation conferences conducted by Owner's construction forces if portions of the Work depend on Owner's construction.

3.7 PROGRESS CLEANING

- A. General: Clean Project site and work areas daily, including common areas. Coordinate progress cleaning for joint-use areas where more than one installer has worked. Enforce requirements strictly. Dispose of materials lawfully.
 1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
 2. Do not hold materials more than 7 days during normal weather or 3 days if the temperature is expected to rise above 80 deg F.
 3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.
- B. Site: Maintain Project site free of waste materials and debris.
- C. Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the Work.
 1. Remove liquid spills promptly.
- D. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.
- E. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.
- F. Exposed Surfaces in Finished Areas: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.
- G. Waste Disposal: Burying or burning waste materials on-site will not be permitted. Washing waste materials down sewers or into waterways will not be permitted.
- H. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration.
- I. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
- J. Limiting Exposures: Supervise construction operations to assure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

3.8 STARTING AND ADJUSTING

- A. Start equipment and operating components to confirm proper operation. Remove malfunctioning units, replace with new units, and retest.
- B. Adjust operating components for proper operation without binding. Adjust equipment for proper operation.
- C. Test each piece of equipment to verify proper operation. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.
- D. Manufacturer's Field Service: If a factory-authorized service representative is required to inspect field-assembled components and equipment installation, comply with qualification requirements in Division 1 Section "Quality Requirements."

3.9 PROTECTION OF INSTALLED CONSTRUCTION

- A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.
- B. Provide protection against weather, rain, wind, storms, frost and heat so as to maintain all work and materials free from injury or damage.
- C. Comply with manufacturer's written instructions for temperature and relative humidity.

3.10 CORRECTION OF THE WORK

- A. Repair or remove and replace defective construction. Restore damaged substrates and finishes.
 - 1. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment.
- B. Restore permanent facilities used during construction to their specified condition.
- C. Remove and replace damaged surfaces that are exposed to view if surfaces cannot be repaired without visible evidence of repair.
- D. Repair components that do not operate properly. Remove and replace operating components that cannot be repaired.
- E. Remove and replace chipped, scratched, and broken glass or reflective surfaces.

END OF SECTION 017300

SECTION 017419 - CONSTRUCTION WASTE MANAGEMENT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for the following:
 - 1. Disposing of nonhazardous construction waste.

1.3 DEFINITIONS

- A. Construction Waste: Building and site improvement materials and other solid waste resulting from construction, remodeling, renovation, or repair operations. Construction waste includes packaging.
- B. Demolition Waste: Building and site improvement materials resulting from demolition or selective demolition operations.
- C. Disposal: Removal off-site of demolition and construction waste and subsequent sale, recycling, reuse, or deposit in landfill or incinerator acceptable to authorities having jurisdiction.
- D. Recycle: Recovery of demolition or construction waste for subsequent processing in preparation for reuse.
- E. Salvage: Recovery of demolition or construction waste and subsequent sale or reuse in another facility.
- F. Salvage and Reuse: Recovery of demolition or construction waste and subsequent incorporation into the Work.

1.4 SUBMITTALS

- A. Waste Management Plan: Submit 3 copies of plan within 30 days of date established for the Notice to Proceed.

1.5 QUALITY ASSURANCE

- A. Regulatory Requirements: Comply with hauling and disposal regulations of authorities having jurisdiction.

- B. Waste Management Conference: Conduct conference at Project site to comply with requirements in Division 1 Section "Project Management and Coordination." Review methods and procedures related to waste management including, but not limited to, the following:
 - 1. Review and discuss waste management plan including responsibilities of Waste Management Coordinator.
 - 2. Review requirements for documenting quantities of each type of waste and its disposition.
 - 3. Review and finalize procedures for materials separation and verify availability of containers and bins needed to avoid delays.
 - 4. Review procedures for periodic waste collection and transportation to recycling and disposal facilities.
 - 5. Review waste management requirements for each trade.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 RECYCLING CONSTRUCTION WASTE, GENERAL

- A. Recycling of Asphalt Concrete, Portland Cement Concrete, Aggregate Base, and Green Waste are required.
 - 1. The records of disposal, including scale tonnages, shall be furnished to the City on a monthly basis. Failure to comply with the requirements of this Section will result in delay of progress payment.
- B. Recycle paper and beverage containers used by on-site workers.
- C. Recycling Incentives: Revenues, savings, rebates, tax credits, and other incentives received for recycling waste materials shall be shared equally by Owner and Contractor.
- D. Procedures: Separate recyclable waste from other waste materials, trash, and debris. Separate recyclable waste by type at Project site to the maximum extent practical.
 - 1. Provide appropriately marked containers or bins for controlling recyclable waste until they are removed from Project site. Include list of acceptable and unacceptable materials at each container and bin.
 - a. Inspect containers and bins for contamination and remove contaminated materials if found.
 - 2. Stockpile processed materials on-site without intermixing with other materials. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.
 - 3. Stockpile materials away from construction area. Do not store within drip line of remaining trees.
 - 4. Store components off the ground and protect from the weather.
 - 5. Remove recyclable waste off Owner's property and transport to recycling receiver or processor.
- E. Recycling haulers: Only use City approved haulers. Complete list is available from City.

3.2 DISPOSAL OF WASTE

- A. General: Except for items or materials to be salvaged, recycled, or otherwise reused, remove waste materials from Project site and legally dispose of them in a landfill or incinerator acceptable to authorities having jurisdiction.
 - 1. Except as otherwise specified, do not allow waste materials that are to be disposed of accumulate on-site.
 - 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
- B. Burning: Do not burn waste materials.
- C. Disposal: Transport waste materials off Owner's property and legally dispose of them.

END OF SECTION 017419

SECTION 017700 - CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:
 1. Warranties.
 2. Extra Materials.
 3. Final cleaning.

1.3 SUBMITTALS

- A. Submit a copy of Title 24 Certificate of Acceptance forms submitted to enforcement agency.

1.4 CLOSEOUT.

- A. Preliminary Procedures: Before requesting inspection for determining date of Substantial Completion, complete the following. List items below that are incomplete in request.
 1. Architect/Owner along with Contractor to prepare a list of items to be completed and corrected (punch list) at substantial completion.
 2. Advise Owner of pending insurance changeover requirements.
 3. Submit specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
 4. Obtain and submit releases permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
 5. Prepare and submit Project Record Documents, operation and maintenance manuals, damage or settlement surveys, property surveys, and similar final record information.
 6. Deliver tools, spare parts, extra materials, and similar items to location designated by Owner. Label with manufacturer's name and model number where applicable.
 7. Make final changeover of permanent locks and deliver keys to Owner. Advise Owner's personnel of changeover in security provisions.
 8. Complete startup testing of systems.
 9. Submit test/adjust/balance records.
 10. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
 11. Advise Owner of changeover in heat and other utilities.

12. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.
 13. Complete final cleaning requirements, including touchup painting.
 14. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.
- B. Inspection: Submit a written request to Owner/Architect for inspection for Substantial Completion. On receipt of request, Owner/Architect will either proceed with inspection process or notify Contractor of unfulfilled requirements. Owner/Architect will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Owner/Architect, that must be completed or corrected before certificate will be issued.
1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
 2. Results of completed inspection will form the basis of requirements for Final Completion.

1.5 FINAL COMPLETION

- A. Preliminary Procedures: Before requesting final inspection for determining date of Final Completion, complete the following:
1. Submit a final Application for Payment according to Division 1 Section "Payment Procedures."
 2. Submit certified copy of Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Architect. The certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
 3. Submit evidence of final, continuing insurance coverage complying with insurance requirements.
 4. Submit pest-control final inspection report and warranty.
 5. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems.
- B. Inspection: Submit a written request for final inspection process for acceptance. On receipt of request, Owner/Architect will either proceed with inspection process or notify Contractor of unfulfilled requirements. Owner/Architect will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.
1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.

1.6 LIST OF INCOMPLETE ITEMS (PUNCH LIST) Architect/owner to provide

- A. Preparation: Submit one copy of the list to Owner/Architect. Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction. Use form attached.
1. Organize a list of spaces including exterior areas and interior areas.
 2. Organize items applying to each space by major element, including categories for ceiling, individual walls, floors, equipment, and building systems.

1.7 WARRANTIES

- A. Warranty period shall start at “Substantial Completion”.
- B. Time of Submittal: Submit written warranties on request of Architect for designated portions of the Work where commencement of warranties other than date of Substantial Completion is indicated, or when delay in submittal of warranties might limit Owner's rights under warranty.
- C. Organize warranty documents into an orderly sequence based on the table of contents of the Project Manual.
 - 1. Bind or otherwise organize warranties in an orderly fashion.
 - 2. Include Table of Contents or written outline of warranties such that Owner can easily identify the product or installation associated with each warranty.
 - 3. Provide the name, address, and telephone number of the Installer or firm providing the warranty.
 - 4. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project name, and name of Contractor.

1.8 EXTRA MATERIALS

- A. Deliver to Owner’s facility manager extra materials specified in each section.
- B. Organize submitted materials in orderly sequence based on the table of contents of the Project Manual.
- C. Label each items for easy identification.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

PART 3 - EXECUTION

3.1 FINAL CLEANING

- A. General: Provide final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.
- B. Cleaning: Employ professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.

1. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a portion of Project:
 - a. Clean Project site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
 - b. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
 - c. Remove tools, construction equipment, machinery, and surplus material from Project site.
 - d. Removed.
 - e. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
 - f. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other noticeable, vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials. Polish mirrors and glass, taking care not to scratch surfaces.
 - g. Remove labels that are not permanent.
 - h. Touch up and otherwise repair and restore marred, exposed finishes and surfaces. Replace finishes and surfaces that cannot be satisfactorily repaired or restored or that already show evidence of repair or restoration.
 - 1) Do not paint over "UL" and similar labels, including mechanical and electrical nameplates.
 - i. Wipe surfaces of mechanical and electrical equipment and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
 - j. Replace parts subject to unusual operating conditions.
 - k. Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.
 - l. Replace disposable air filters and clean permanent air filters. Clean exposed surfaces of diffusers, registers, and grills.
 - m. Clean ducts, blowers, and coils if units were operated without filters during construction.
 - n. Clean light fixtures, lamps, globes, and reflectors to function with full efficiency. Replace burned-out bulbs, and those noticeably dimmed by hours of use, and defective and noisy starters in fluorescent and mercury vapor fixtures to comply with requirements for new fixtures.
 - o. Leave Project clean and orderly.

3.2 FORMS

- A. Electronic versions of attached forms will be provided upon request.
 1. Punch-List Form.

END OF SECTION 017700

SECTION 017823 - OPERATION AND MAINTENANCE DATA

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for preparing operation and maintenance manuals, including the following:
 1. Operation and maintenance documentation directory.
 2. Emergency manuals.
 3. Operation manuals for systems, subsystems, and equipment.
 4. Maintenance manuals for the care and maintenance of products, materials, and finishes.

1.3 DEFINITIONS

- A. System: An organized collection of parts, equipment, or subsystems united by regular interaction.
- B. Subsystem: A portion of a system with characteristics similar to a system.

1.4 SUBMITTALS

- A. Final Submittal: Submit 1 copy of each manual and 1 electronic file in pdf, in final form before final inspection. Architect will return copy with comments within 15 days after final inspection.
 1. Correct or modify each manual to comply with Architect's comments. Submit 3 copies and 1 electronic file in pdf of each corrected manual within 15 days of receipt of Architect's comments.

1.5 COORDINATION

- A. Where operation and maintenance documentation includes information on installations by more than one factory-authorized service representative, assemble and coordinate information furnished by representatives and prepare manuals.

PART 2 - PRODUCTS

2.1 OPERATION AND MAINTENANCE DOCUMENTATION DIRECTORY

- A. Organization: Include a section in the directory for each of the following:
 - 1. List of documents.
 - 2. List of systems.
 - 3. List of equipment.
 - 4. Table of contents.
- B. List of Systems and Subsystems: List systems alphabetically. Include references to operation and maintenance manuals that contain information about each system.
- C. List of Equipment: List equipment for each system, organized alphabetically by system. For pieces of equipment not part of system, list alphabetically in separate list.
- D. Tables of Contents: Include a table of contents for each emergency, operation, and maintenance manual.
- E. Identification: In the documentation directory and in each operation and maintenance manual, identify each system, subsystem, and piece of equipment with same designation used in the Contract Documents. If no designation exists, assign a designation according to ASHRAE Guideline 4, "Preparation of Operating and Maintenance Documentation for Building Systems."

2.2 MANUALS, GENERAL

- A. Organization: Unless otherwise indicated, organize each manual into a separate section for each system and subsystem, and a separate section for each piece of equipment not part of a system. Each manual shall contain the following materials, in the order listed:
 - 1. Title page.
 - 2. Table of contents.
 - 3. Manual contents.
- B. Title Page: Enclose title page in transparent plastic sleeve. Include the following information:
 - 1. Subject matter included in manual.
 - 2. Name and address of Project.
 - 3. Name and address of Owner.
 - 4. Date of submittal.
 - 5. Name, address, and telephone number of Contractor.
 - 6. Name and address of Architect.
 - 7. Cross-reference to related systems in other operation and maintenance manuals.
- C. Table of Contents: List each product included in manual, identified by product name, indexed to the content of the volume, and cross-referenced to Specification Section number in Project Manual.
 - 1. If operation or maintenance documentation requires more than one volume to accommodate data, include comprehensive table of contents for all volumes in each volume of the set.

- D. Manual Contents: Organize into sets of manageable size. Arrange contents alphabetically by system, subsystem, and equipment. If possible, assemble instructions for subsystems, equipment, and components of one system into a single binder.
1. Binders: Heavy-duty, 3-ring, vinyl-covered, loose-leaf binders, in thickness necessary to accommodate contents, sized to hold 8-1/2-by-11-inch paper; with clear plastic sleeve on spine to hold label describing contents and with pockets inside covers to hold folded oversize sheets.
 - a. If two or more binders are necessary to accommodate data of a system, organize data in each binder into groupings by subsystem and related components. Cross-reference other binders if necessary to provide essential information for proper operation or maintenance of equipment or system.
 - b. Identify each binder on front and spine, with printed title "OPERATION AND MAINTENANCE MANUAL," Project title or name, and subject matter of contents. Indicate volume number for multiple-volume sets.
 2. Dividers: Heavy-paper dividers with plastic-covered tabs for each section. Mark each tab to indicate contents. Include typed list of products and major components of equipment included in the section on each divider, cross-referenced to Specification Section number and title of Project Manual.
 3. Protective Plastic Sleeves: Transparent plastic sleeves designed to enclose diagnostic software diskettes for computerized electronic equipment.
 4. Supplementary Text: Prepared on 8-1/2-by-11-inch white bond paper.
 5. Drawings: Attach reinforced, punched binder tabs on drawings and bind with text.
 - a. If oversize drawings are necessary, fold drawings to same size as text pages and use as foldouts.
 - b. If drawings are too large to be used as foldouts, fold and place drawings in labeled envelopes and bind envelopes in rear of manual. At appropriate locations in manual, insert typewritten pages indicating drawing titles, descriptions of contents, and drawing locations.

2.3 EMERGENCY MANUALS

- A. Content: Organize manual into a separate section for each of the following:
1. Type of emergency.
 2. Emergency instructions.
 3. Emergency procedures.
- B. Type of Emergency: Where applicable for each type of emergency indicated below, include instructions and procedures for each system, subsystem, piece of equipment, and component:
1. Fire.
 2. Flood.
 3. Gas leak.
 4. Water leak.
 5. Power failure.
 6. Water outage.
 7. System, subsystem, or equipment failure.
 8. Chemical release or spill.
- C. Emergency Instructions: Describe and explain warnings, trouble indications, error messages, and similar codes and signals. Include responsibilities of Owner's operating personnel for notification of Installer, supplier, and manufacturer to maintain warranties.

- D. Emergency Procedures: Include the following, as applicable:
 - 1. Instructions on stopping.
 - 2. Shutdown instructions for each type of emergency.
 - 3. Operating instructions for conditions outside normal operating limits.
 - 4. Required sequences for electric or electronic systems.
 - 5. Special operating instructions and procedures.

2.4 OPERATION MANUALS

- A. Content: In addition to requirements in this Section, include operation data required in individual Specification Sections and the following information:
 - 1. System, subsystem, and equipment descriptions.
 - 2. Performance and design criteria if Contractor is delegated design responsibility.
 - 3. Operating standards.
 - 4. Operating procedures.
 - 5. Operating logs.
 - 6. Wiring diagrams.
 - 7. Control diagrams.
 - 8. Piped system diagrams.
 - 9. Precautions against improper use.
 - 10. License requirements including inspection and renewal dates.
- B. Descriptions: Include the following:
 - 1. Product name and model number.
 - 2. Manufacturer's name.
 - 3. Equipment identification with serial number of each component.
 - 4. Equipment function.
 - 5. Operating characteristics.
 - 6. Limiting conditions.
 - 7. Performance curves.
 - 8. Engineering data and tests.
 - 9. Complete nomenclature and number of replacement parts.
- C. Operating Procedures: Include the following, as applicable:
 - 1. Startup procedures.
 - 2. Equipment or system break-in procedures.
 - 3. Routine and normal operating instructions.
 - 4. Regulation and control procedures.
 - 5. Instructions on stopping.
 - 6. Normal shutdown instructions.
 - 7. Seasonal and weekend operating instructions.
 - 8. Required sequences for electric or electronic systems.
 - 9. Special operating instructions and procedures.
- D. Systems and Equipment Controls: Describe the sequence of operation, and diagram controls as installed.
- E. Piped Systems: Diagram piping as installed, and identify color-coding where required for identification.

2.5 PRODUCT MAINTENANCE MANUAL

- A. Content: Organize manual into a separate section for each product, material, and finish. Include source information, product information, maintenance procedures, repair materials and sources, and warranties and bonds, as described below.
- B. Source Information: List each product included in manual, identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual.
- C. Product Information: Include the following, as applicable:
 - 1. Product name and model number.
 - 2. Manufacturer's name.
 - 3. Color, pattern, and texture.
 - 4. Material and chemical composition.
 - 5. Reordering information for specially manufactured products.
- D. Maintenance Procedures: Include manufacturer's written recommendations and the following:
 - 1. Inspection procedures.
 - 2. Types of cleaning agents to be used and methods of cleaning.
 - 3. List of cleaning agents and methods of cleaning detrimental to product.
 - 4. Schedule for routine cleaning and maintenance.
 - 5. Repair instructions.
- E. Repair Materials and Sources: Include lists of materials and local sources of materials and related services.
- F. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.
 - 1. Include procedures to follow and required notifications for warranty claims.

2.6 SYSTEMS AND EQUIPMENT MAINTENANCE MANUAL

- A. Content: For each system, subsystem, and piece of equipment not part of a system, include source information, manufacturers' maintenance documentation, maintenance procedures, maintenance and service schedules, spare parts list and source information, maintenance service contracts, and warranty and bond information, as described below.
- B. Source Information: List each system, subsystem, and piece of equipment included in manual, identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual.
- C. Manufacturers' Maintenance Documentation: Manufacturers' maintenance documentation including the following information for each component part or piece of equipment:
 - 1. Standard printed maintenance instructions and bulletins.
 - 2. Drawings, diagrams, and instructions required for maintenance, including disassembly and component removal, replacement, and assembly.
 - 3. Identification and nomenclature of parts and components.

4. List of items recommended to be stocked as spare parts.
- D. Maintenance Procedures: Include the following information and items that detail essential maintenance procedures:
 1. Test and inspection instructions.
 2. Troubleshooting guide.
 3. Precautions against improper maintenance.
 4. Disassembly; component removal, repair, and replacement; and reassembly instructions.
 5. Aligning, adjusting, and checking instructions.
 6. Demonstration and training videotape, if available.
 - E. Maintenance and Service Schedules: Include service and lubrication requirements, list of required lubricants for equipment, and separate schedules for preventive and routine maintenance and service with standard time allotment.
 1. Scheduled Maintenance and Service: Tabulate actions for daily, weekly, monthly, quarterly, semiannual, and annual frequencies.
 2. Maintenance and Service Record: Include manufacturers' forms for recording maintenance.
 - F. Spare Parts List and Source Information: Include lists of replacement and repair parts, with parts identified and cross-referenced to manufacturers' maintenance documentation and local sources of maintenance materials and related services.
 - G. Maintenance Service Contracts: Include copies of maintenance agreements with name and telephone number of service agent.
 - H. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.
 1. Include procedures to follow and required notifications for warranty claims.

PART 3 - EXECUTION

3.1 MANUAL PREPARATION

- A. Operation and Maintenance Documentation Directory: Prepare a separate manual that provides an organized reference to emergency, operation, and maintenance manuals.
- B. Emergency Manual: Assemble a complete set of emergency information indicating procedures for use by emergency personnel and by Owner's operating personnel for types of emergencies indicated.
- C. Product Maintenance Manual: Assemble a complete set of maintenance data indicating care and maintenance of each product, material, and finish incorporated into the Work.
- D. Operation and Maintenance Manuals: Assemble a complete set of operation and maintenance data indicating operation and maintenance of each system, subsystem, and piece of equipment not part of a system.
 1. Engage a factory-authorized service representative to assemble and prepare information for each system, subsystem, and piece of equipment not part of a system.

OCFA Fire Station #4
Construction Documents

2. Prepare a separate manual for each system and subsystem, in the form of an instructional manual for use by Owner's operating personnel.
- E. Manufacturers' Data: Where manuals contain manufacturers' standard printed data, include only sheets pertinent to product or component installed. Mark each sheet to identify each product or component incorporated into the Work. If data include more than one item in a tabular format, identify each item using appropriate references from the Contract Documents. Identify data applicable to the Work and delete references to information not applicable.
1. Prepare supplementary text if manufacturers' standard printed data are not available and where the information is necessary for proper operation and maintenance of equipment or systems.
- F. Drawings: Prepare drawings supplementing manufacturers' printed data to illustrate the relationship of component parts of equipment and systems and to illustrate control sequence and flow diagrams. Coordinate these drawings with information contained in Record Drawings to ensure correct illustration of completed installation.
1. Do not use original Project Record Documents as part of operation and maintenance manuals.
 2. Comply with requirements of newly prepared Record Drawings in Division 1 Section "Project Record Documents."
- G. Comply with Division 1 Section "Closeout Procedures" for schedule for submitting operation and maintenance documentation.

END OF SECTION 017823

SECTION 017839 - PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for Project Record Documents, including the following:
 - 1. Record Drawings.
 - 2. Record Specifications.
 - 3. Record Product Data.

PART 2 - PRODUCTS

2.1 RECORD DRAWINGS

- A. Record Prints: Maintain one set of blue- or black-line white prints of the Contract Drawings and Shop Drawings.
 - 1. Preparation: Mark Record Prints to show the actual installation where installation varies from that shown originally. Require individual or entity who obtained record data, whether individual or entity is Installer, subcontractor, or similar entity, to prepare the marked-up Record Prints.
 - a. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later.
 - b. Accurately record information in an understandable drawing technique.
 - c. Record data as soon as possible after obtaining it. Record and check the markup before enclosing concealed installations.
 - 2. Content: Types of items requiring marking include, but are not limited to, the following:
 - a. Dimensional changes to Drawings.
 - b. Revisions to details shown on Drawings.
 - c. Depths of foundations below first floor.
 - d. Locations and depths of underground utilities.
 - e. Revisions to routing of piping and conduits.
 - f. Revisions to electrical circuitry.
 - g. Actual equipment locations.
 - h. Duct size and routing.
 - i. Locations of concealed internal utilities.
 - j. Changes made by Change Order or Construction Change Directive.
 - k. Changes made following Architect's written orders.
 - l. Details not on the original Contract Drawings.

- m. Field records for variable and concealed conditions.
 - n. Record information on the Work that is shown only schematically.
 3. Mark the Contract Drawings or Shop Drawings, whichever is most capable of showing actual physical conditions, completely and accurately. If Shop Drawings are marked, show cross-reference on the Contract Drawings.
 4. Mark record sets with erasable, red-colored pencil. Use other colors to distinguish between changes for different categories of the Work at same location.
 5. Mark important additional information that was either shown schematically or omitted from original Drawings.
 6. Note Construction Change Directive numbers, alternate numbers, Change Order numbers, and similar identification, where applicable.
- B. Format: Identify and date each Record Drawing; include the designation "PROJECT RECORD DRAWING" in a prominent location.
1. Record Prints: Organize Record Prints into manageable sets. Bind each set with durable paper cover sheets. Include identification on cover sheets.
 2. Identification: As follows:
 - a. Project name.
 - b. Date.
 - c. Designation "PROJECT RECORD DRAWINGS."
 - d. Name of Architect.
 - e. Name of Contractor.

2.2 RECORD SPECIFICATIONS

- A. Preparation: Mark Specifications to indicate the actual product installation where installation varies from that indicated in Specifications, addenda, and contract modifications.
1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
 2. Mark copy with the proprietary name and model number of products, materials, and equipment furnished, including substitutions and product options selected.
 3. Record the name of manufacturer, supplier, Installer, and other information necessary to provide a record of selections made.
 4. For each principal product, indicate whether Record Product Data has been submitted in operation and maintenance manuals instead of submitted as Record Product Data.
 5. Note related Change Orders, Record Product Data, and Record Drawings where applicable.

PART 3 - EXECUTION

3.1 RECORDING AND MAINTENANCE

- A. Recording: Maintain one copy of each submittal during the construction period for Project Record Document purposes. Post changes and modifications to Project Record Documents as they occur; do not wait until the end of Project.
- B. Maintenance of Record Documents and Samples: Store Record Documents and Samples in the field office apart from the Contract Documents used for construction. Do not use Project

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Record Documents for construction purposes. Maintain Record Documents in good order and in a clean, dry, legible condition, protected from deterioration and loss. Provide access to Project Record Documents for Architect's reference during normal working hours.

3.2 FORMS

- A. Electronic versions of attached forms will be provided upon request.
 - 1. Record Product Data Form.

END OF SECTION 017839

RECORD PRODUCT DATA FORM

Record Product Data is due no later than 10 calendar days after the date of Substantial Completion. Photocopy for continuation sheets. List products in order by specification section numbers.

Project Name:	From:
To:	Date:

Spec Section		Originally Specified		Actually Installed	
No.	Title	Model	Manufacturer	Model	Manufacturer

End of Record Product Data Form

SECTION 017900 - DEMONSTRATION AND TRAINING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for instructing Owner's personnel in the maintenance and operations of the building and its systems, including the following:
 1. Demonstration and training in the operation of systems, subsystems, and equipment including emergency procedures.
 2. Provide a list including contact information for each subcontractor responsible for all of the major systems and equipment.

1.3 SUBMITTALS

- A. At completion of training, submit 2 complete training manual(s) for Owner's use.

1.4 QUALITY ASSURANCE

- A. Instructor Qualifications: A member of the staff of contractor may provide the instruction and training outlined herein. Only if needed for specialized systems, a factory-authorized service representative experienced in the specific operation and maintenance of a particular item will be called in to provide procedures and training to Owner.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 017900

SECTION 024119 - SELECTIVE DEMOLITION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Demolition and removal of selected portions of building or structure.
- B. Schedule of Selective Demolition Activities: Indicate the following:
 - 1. Detailed sequence of selective demolition and removal work, with starting and ending dates for each activity. Ensure Owner's building manager's on-site operations are uninterrupted.
 - 2. Interruption of utility services. Indicate how long utility services will be interrupted.
 - 3. Coordination for shutoff, capping, and continuation of utility services.
 - 4. Use of elevator and stairs.
 - 5. Locations of proposed dust- and noise-control temporary partitions and means of egress.
 - 6. Coordination of Owner's continuing occupancy of portions of existing building and of Owner's partial occupancy of completed Work.
 - 7. Means of protection for items to remain and items in path of waste removal from building.
- C. Inventory: After selective demolition is complete, submit a list of items that have been removed and salvaged.

1.3 QUALITY ASSURANCE

- A. Demolition Firm Qualifications: An experienced firm that has specialized in demolition work similar in material and extent to that indicated for this Project.
- B. Refrigerant Recovery Technician Qualifications: Certified by an EPA-approved certification program.
- C. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.
- D. Standards: Comply with ANSI A10.6 and NFPA 241.
- E. Predemolition Conference: Conduct conference at Project site. Review methods and procedures related to selective demolition including, but not limited to, the following:
 - 1. Inspect and discuss condition of construction to be selectively demolished.
 - 2. Review structural load limitations of existing structure.

3. Review and finalize selective demolition schedule and verify availability of materials, demolition personnel, equipment, and facilities needed to make progress and avoid delays.
4. Review requirements of work performed by other trades that rely on substrates exposed by selective demolition operations.
5. Review areas where existing construction is to remain and requires protection.

1.4 PROJECT CONDITIONS

- A. Owner will occupy portions of building immediately adjacent to selective demolition area. Conduct selective demolition so Owner's operations will not be disrupted.
 1. Comply with requirements specified in Division 1 Section "Summary."
- B. Notify Architect of discrepancies between existing conditions and Drawings before proceeding with selective demolition.
- C. Hazardous Materials: It is unknown whether hazardous materials will be encountered in the Work.
 1. If materials suspected of containing hazardous materials are encountered, do not disturb; immediately notify Architect and Owner. Owner will remove hazardous materials under a separate contract.
- D. Storage or sale of removed items or materials on-site is not permitted.
- E. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.
 1. Maintain fire-protection facilities in service during selective demolition operations.

1.5 WARRANTY

- A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during selective demolition, by methods and with materials so as not to void existing warranties.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that utilities have been disconnected and capped.
- B. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.
- C. Inventory and record the condition of items to be removed and reinstalled and items to be removed and salvaged.

- D. When unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate and measure the nature and extent of conflict. Promptly submit a written report to Architect.

3.2 UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS

- A. Existing Services/Systems: Maintain services/systems indicated to remain and protect them against damage during selective demolition operations.
 - 1. Comply with requirements for existing services/systems interruptions specified in Division 1 Section "Summary."
- B. Service/System Requirements: Locate, identify, disconnect, and seal or cap off indicated utility services and mechanical/electrical systems serving areas to be selectively demolished.
 - 1. Building manager will arrange to shut off indicated services/systems when requested by Contractor.
 - 2. If services/systems are required to be removed, relocated, or abandoned, before proceeding with selective demolition provide temporary services/systems that bypass area of selective demolition and that maintain continuity of services/systems to other parts of building.
 - 3. Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit after bypassing.
 - a. Where entire wall is to be removed, existing services/systems may be removed with removal of the wall.

3.3 PREPARATION

- A. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
 - 1. Comply with requirements for access and protection specified in Division 1 Section "Temporary Facilities and Controls."

3.4 SELECTIVE DEMOLITION, GENERAL

- A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:
 - 1. Proceed with selective demolition systematically, from higher to lower level. Complete selective demolition operations above each floor or tier before disturbing supporting members on the next lower level.
 - 2. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping, to minimize disturbance of adjacent surfaces. Temporarily cover openings to remain.
 - 3. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
 - 4. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before

starting flame-cutting operations. Maintain fire watch and portable fire-suppression devices during flame-cutting operations.

5. Maintain adequate ventilation when using cutting torches.
6. Remove decayed, vermin-infested, or otherwise dangerous or unsuitable materials and promptly dispose of off-site.
7. Remove structural framing members and lower to ground by method suitable to avoid free fall and to prevent ground impact or dust generation.
8. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
9. Dispose of demolished items and materials promptly. Comply with requirements in Division 1 Section "Construction Waste Management."

B. Removed and Reinstalled Items:

1. Clean and repair items to functional condition adequate for intended reuse. Paint equipment to match new equipment.
2. Pack or crate items after cleaning and repairing. Identify contents of containers.
3. Protect items from damage during transport and storage.
4. Reinstall items in locations indicated. Comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make item functional for use indicated.

- C. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by Architect, items may be removed to a suitable, protected storage location during selective demolition and cleaned and reinstalled in their original locations after selective demolition operations are complete.

3.5 SELECTIVE DEMOLITION PROCEDURES FOR SPECIFIC MATERIALS

- A. Concrete: Demolish in small sections. Cut concrete to a depth of at least 3/4 inch at junctures with construction to remain, using power-driven saw. Dislodge concrete from reinforcement at perimeter of areas being demolished, cut reinforcement, and then remove remainder of concrete indicated for selective demolition. Neatly trim openings to dimensions indicated. Patch and repair with similar materials.
- B. Resilient Floor Coverings: Remove floor coverings and adhesive according to recommendations in RFCI-WP and its Addendum.
1. Remove residual adhesive and prepare substrate for new floor coverings by one of the methods recommended by RFCI.

3.6 DISPOSAL OF DEMOLISHED MATERIALS

- A. General: Except for items or materials indicated to be reused, salvaged, reinstalled, or otherwise indicated to remain Owner's property, remove demolished materials from Project site and legally dispose of them in an EPA-approved landfill.
1. Do not allow demolished materials to accumulate on-site.
 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
 3. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.

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4. Comply with requirements specified in Division 1 Section "Construction Waste Management."
- B. Burning: Do not burn demolished materials.
- C. Disposal: Transport demolished materials off Owner's property and legally dispose of them.

3.7 CLEANING

- A. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

END OF SECTION 024119

SECTION 033005 - UNDERSLAB VAPOR BARRIER

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Special Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes:
 - 1. Vapor barrier for below grade horizontal application.

1.3 SUBMITTALS

- A. Product Data: For each type of product indicated. Include recommendations for method of application, primer, number of coats, coverage or thickness, and protection course.
- B. Material Certificates: For each product, signed by manufacturers.
- C. Vapor Barrier Independent Test Results: provide summary of test results as per paragraph 9.3 of ASTM E1745 and third-party documentation that all testing was performed on a single production roll per ASTM E1745 Section 8.1.

1.4 QUALITY ASSURANCE

- A. Source Limitations: Obtain primary dampproofing materials and primers through one source from a single manufacturer. Provide secondary materials recommended by manufacturer of primary materials.
- B. Site Support: Contact vapor barrier manufacturer for pre-construction meeting and to coordinate a review of the vapor barrier installation.

1.5 PROJECT CONDITIONS

- A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit asphalt dampproofing to be performed according to manufacturers' written instructions.

1.6 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of underslab vapor barrier that fails in materials or workmanship within specified warranty period.
 - 1. Warranty Period: 1 year.
- B. Installer's Warranty: 1 year.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Plastic Sheet Vapor Barrier: Subject to compliance with requirements, provide products by one of the following manufacturers.
 - 1. Stego Wrap Vapor Barrier 15 mils, polyolefin by Stego Industries. (Basis of Design)
 - 2. W.R. Meadows.
 - 3. Fortifiber.
 - 4. Raven Industries.
 - 5. Reef Industries, Inc.
 - 6. Or equal.

2.2 PLASTIC SHEET VAPOR BARRIER

- A. ASTM E 1745, Class A, and not less than 15 mils thick. Include manufacturer's recommended adhesive or pressure-sensitive joint tape.
 - 1. Puncture Resistance: Minimum 2200 grams per ASTM D 1709B.
 - 2. Tensile Strength: Minimum 45 lbf/in per ASTM D882.
 - 3. Water Vapor Permeance: Maximum 0.01 perms according to ASTM E 96 or ASTM F1249.
 - 4. Permeance as tested before and after mandatory conditioning (ASTM E 1745 Section 7.1 and sub-paragraphs 7.1.1-7.1.5): Less than 0.01 perms.
- B. Accessories:
 - 1. Perimeter/edge seal:
 - a. Stego Crete Claw by Stego or equal.
 - b. Stego Term Bar by Stego or equal.
 - c. StegoTack Tape (double-sided sealant tape) by Stego or equal.
 - d. Use of one-sided seaming tape to seal the perimeter must be submitted to the architect for pre-approval.
 - 2. Penetration Prevention: Beast Foot by Stego or equal.
 - 3. Vapor Barrier-Safe Screed System: Beast Screed by Stego or equal.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, with Applicator present, for compliance with requirements for surface smoothness and other conditions affecting performance of work.
 - 1. Begin dampproofing application only after substrate construction and penetrating work have been completed and unsatisfactory conditions have been corrected.

3.2 APPLICATION, GENERAL

- A. Comply with manufacturer's written recommendations unless more stringent requirements are indicated or required by Project conditions to ensure satisfactory performance of vapor barrier

- B. Unroll dampproofing over the area where the slab is to be poured. Vapor barrier shall completely cover the pour area. All joints/seams both lateral and butt shall be overlapped and taped using manufacturer recommended tape.
- C. Seal pipe, ducting, rebar and wire penetrations using manufacturer recommended tape or mastic.
- D. Install vapor barrier in accordance ASTM E1643.
 - 1. Unroll vapor barrier with the longest dimension parallel with the direction of the concrete placement and face laps away from the expected direction of the placement whenever possible.
 - 2. Extend vapor barrier to the perimeter of the slab. If practicable, terminate it at the top of the slab, otherwise at a point acceptable to the structural engineer or where obstructed by impediments, such as dowels, waterstops, or any other site condition requiring early termination of the vapor barrier. At all points of termination (block-outs, interior grade beams, perimeter edge, etc.), mechanically seal vapor barrier to the slab itself using Stego Crete Claw, per manufacturer's instructions.
 - 3. Perimeter seal:
 - a. When sealing to the slab, Crete Claw is the best option.
 - b. When sealing to a stem wall or wall, StegoTack Tape or both StegoTack Tape and Stego Term Bar is the best option.
 - 4. Seal vapor barrier to the entire slab perimeter using Stego Crete Claw, per manufacturer's instructions or seal vapor barrier to the entire perimeter wall or footing/grade beam with double sided StegoTack Tape, or both Stego Term Bar and StegoTack Tape, per manufacturer's instructions. Ensure the concrete is clean and dry prior to adhering tape.
 - 5. Overlap joints 6 inches and seal with manufacturer's seam tape.
 - 6. Apply seam tape/Crete Claw to a clean and dry vapor barrier.
 - 7. Seal all penetrations (including pipes) per manufacturer's instructions.
 - 8. For interior forming applications, avoid the use of non-permanent stakes driven through the vapor barrier. Use blunt-end and/or threaded nail stakes (screed pad posts) and insert them into Beast Foot. Ensure Beast Foot's peel-and-stick adhesive base is fully adhered to the vapor barrier.
 - 9. If non-permanent stakes must be driven through vapor retarder, repair as recommended by vapor retarder manufacturer.
 - 10. Use reinforcing bar supports with base sections that eliminate or minimize the potential for puncture of the vapor barrier.
 - 11. Repair damaged areas with vapor barrier material of similar (or better) permeance, puncture and tensile.
 - 12. For a vapor barrier-safe, fixed-elevation concrete screeding application, install Beast Screed (vapor barrier-safe screed system) per manufacturer's instructions prior to placing concrete.

END OF SECTION 033005

SECTION 055000 - METAL FABRICATIONS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Steel framing and supports for overhead doors.
 - 2. Steel framing and supports for countertops.
 - 3. Steel framing and supports for applications where framing and supports are not specified in other Sections.
 - 4. Elevator machine beams and other metal fabrications.
 - 5. Support angles for elevator door sills.
 - 6. Miscellaneous framing supports.
 - 7. Miscellaneous steel trim.
 - 8. Shelf angles.
 - 9. Metal ladders.
 - 10. Abrasive metal nosings.
- B. Related Sections include the following:
 - 1. Division 5 Section "Metal Stairs."
 - 2. Division 5 Section "Pipe and Tube Railings" for steel railings.
 - 3. Division 9 Section "Painting" for field painting.

1.3 DEFINITIONS

- A. Exterior: Defined as the following:
 - 1. Areas, locations, and surfaces that are unprotected, or exposed to environmental elements.
 - 2. Areas, locations and surfaces within uncontrolled environments.
 - 3. Areas, locations and surfaces of unconditioned spaces, including belowgrade/underground, partially-exposed, or "covered" parking areas.

1.4 PERFORMANCE REQUIREMENTS

- A. Structural Performance of Ladders: Provide ladders capable of withstanding the effects of loads and stresses within limits and under conditions specified in ANSI A14.3.
- B. Thermal Movements: Provide exterior metal fabrications that allow for thermal movements resulting from the following maximum change (range) in ambient and surface temperatures by preventing buckling, opening of joints, overstressing of components, failure of connections, and

other detrimental effects. Base engineering calculation on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.

1. Temperature Change (Range): 120 deg F, ambient; 180 deg F, material surfaces.

1.5 SUBMITTALS

- A. Product Data: For items specified.
- B. Shop Drawings: Show fabrication and installation details for metal fabrications.
 1. Include plans, elevations, sections, and details of metal fabrications and their connections. Show anchorage and accessory items.
 2. Provide templates for anchors and bolts specified for installation under other Sections.

1.6 QUALITY ASSURANCE

- A. Treads and Nosings:
 1. Provide 2 inch contrasting color (70% recommended) warning stripe 1 inch maximum from edge of nosing of each exterior stair tread and top landing. Top landing and bottom tread nosing only at interior stairs.
- B. Welding: Qualify procedures and personnel according to the following:
 1. AWS D1.1, "Structural Welding Code--Steel."

1.7 COORDINATION

- A. Coordinate installation of anchorages for metal fabrications. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.
- B. Coordinate installation of steel weld plates and angles for casting into concrete that are specified in this Section but required for work of another Section. Deliver such items to Project site in time for installation.

1.8 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of metal fabrications that fails in materials or workmanship within specified warranty period.
 1. Warranty Period: 1 year.
- B. Installer's Warranty: 1 year.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Extruded Abrasive Metal Nosings: Subject to compliance with requirements, provide either the product by named manufacturer or an equal product by one of the other manufacturers specified.
 - 1. Type 24 by American Safety Tread Co., Inc. (Basis of Design)
 - 2. Type 24 Spectra by Wooster Products Inc.
 - 3. Or equal.

2.2 METALS, GENERAL

- A. Metal Surfaces, General: Provide materials with smooth, flat surfaces, unless otherwise indicated. For metal fabrications exposed to view in the completed Work, provide materials without seam marks, roller marks, rolled trade names, or blemishes.

2.3 FERROUS METALS

- A. Steel Plates, Shapes, and Bars: ASTM A 36.
- B. Stainless-Steel Sheet, Strip, Plate, and Flat Bars: ASTM A 666, Type 304.
- C. Stainless-Steel Bars and Shapes: ASTM A 276, Type 304.
- D. Steel Tubing: ASTM A 500, cold-formed steel tubing.
- E. Steel Pipe: ASTM A 53, standard weight (Schedule 40), unless another weight is indicated or required by structural loads.
- F. Slotted Channel Framing: Cold-formed metal channels with continuous slot complying with MFMA-3.
 - 1. Size of Channels: 1-5/8 by 1-5/8 inches.
 - 2. Material: Galvanized steel complying with ASTM A 653, commercial steel, Type B, with G90 coating; 0.108-inch nominal thickness.

2.4 FASTENERS

- A. General: Unless otherwise indicated, provide Type 304 stainless-steel fasteners for exterior use and zinc-plated fasteners with coating complying with ASTM B 633, Class Fe/Zn 5, at exterior walls. Provide stainless-steel fasteners for fastening aluminum. Select fasteners for type, grade, and class required.
- B. Anchor Bolts: ASTM F 1554, Grade 36.
 - 1. Provide hot-dip or mechanically deposited, zinc-coated anchor bolts where item being fastened is indicated to be galvanized.

2.5 MISCELLANEOUS MATERIALS

- A. Welding Rods and Bare Electrodes: Select according to AWS specifications for metal alloy welded.
- B. Shop Primers: Provide primers that comply with Division 9 painting Sections.
- C. Galvanizing Repair Paint: High-zinc-dust-content paint for regalvanizing welds in steel, complying with SSPC-Paint 20.
- D. Bituminous Paint: Cold-applied asphalt emulsion complying with ASTM D 1187.
- E. Nonshrink, Nonmetallic Grout: Factory-packaged, nonstaining, noncorrosive, nongaseous grout complying with ASTM C 1107. Provide grout specifically recommended by manufacturer for interior and exterior applications.

2.6 FABRICATION, GENERAL

- A. Shop Assembly: Preassemble items in the shop to greatest extent possible. Disassemble units only as necessary for shipping and handling limitations. Use connections that maintain structural value of joined pieces. Clearly mark units for reassembly and coordinated installation.
- B. Cut, drill, and punch metals cleanly and accurately. Remove burrs and ease edges to a radius of approximately 1/32 inch, unless otherwise indicated. Remove sharp or rough areas on exposed surfaces.
- C. Form bent-metal corners to smallest radius possible without causing grain separation or otherwise impairing work.
- D. Form exposed work true to line and level with accurate angles and surfaces and straight edges.
- E. Weld corners and seams continuously to comply with the following:
 - 1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
 - 2. Obtain fusion without undercut or overlap.
 - 3. Remove welding flux immediately.
 - 4. At exposed connections, finish exposed welds and surfaces smooth and blended so no roughness shows after finishing and contour of welded surface matches that of adjacent surface.
- F. Form exposed connections with hairline joints, flush and smooth, using concealed fasteners where possible. Where exposed fasteners are required, use Phillips flat-head (countersunk) screws or bolts, unless otherwise indicated. Locate joints where least conspicuous.
- G. Fabricate seams and other connections that will be exposed to weather in a manner to exclude water. Provide weep holes where water may accumulate.
- H. Cut, reinforce, drill, and tap metal fabrications as indicated to receive finish hardware, screws, and similar items.

- I. Provide for anchorage of type indicated; coordinate with supporting structure. Space anchoring devices to secure metal fabrications rigidly in place and to support indicated loads.
 1. Where units are indicated to be cast into concrete or built into masonry, equip with integrally welded steel strap anchors, 1/8 by 1-1/2 inches, with a minimum 6-inch embedment and 2-inch hook, not less than 8 inches from ends and corners of units and 24 inches o.c., unless otherwise indicated.

2.7 MISCELLANEOUS FRAMING AND SUPPORTS

- A. General: Provide steel framing and supports not specified in other Sections as needed to complete the Work.
- B. Fabricate units from steel shapes, plates, and bars of welded construction, unless otherwise indicated. Fabricate to sizes, shapes, and profiles indicated and as necessary to receive adjacent construction retained by framing and supports. Cut, drill, and tap units to receive hardware, hangers, and similar items.
- C. Galvanize miscellaneous framing and supports where indicated.
- D. Prime miscellaneous framing and supports with zinc-rich primer where indicated.

2.8 STEEL WELD PLATES AND ANGLES

- A. Provide steel weld plates and angles not specified in other Sections, for items supported from concrete construction as needed to complete the Work. Provide each unit with not less than two integrally welded steel strap anchors for embedding in concrete.

2.9 MISCELLANEOUS STEEL TRIM

- A. Unless otherwise indicated, fabricate units from steel shapes, plates, and bars of profiles shown with continuously welded joints and smooth exposed edges. Miter corners and use concealed field splices where possible.
- B. Provide cutouts, fittings, and anchorages as needed to coordinate assembly and installation with other work.
- C. Galvanize exterior miscellaneous steel trim and interior miscellaneous steel trim, where indicated.

2.10 SHELF ANGLES

- A. Fabricate shelf angles from steel angles of sizes indicated and for attachment to concrete framing. Provide horizontally slotted holes to receive 3/4-inch bolts, spaced not more than 6 inches from ends and 24 inches o.c., unless otherwise indicated.
 1. Provide mitered and welded units at corners.
 2. Provide open joints in shelf angles at expansion and control joints. Make open joint approximately 2 inches larger than expansion or control joint.

- B. For cavity walls, provide vertical channel brackets to support angles from backup masonry and concrete.
- C. Galvanize shelf angles located in exterior walls.
- D. Finishes: Comply with Division 9 Section "Painting".

2.11 METAL LADDERS

- A. General:
 - 1. Comply with ANSI A14.3, unless otherwise indicated.
 - 2. For elevator pit ladders, comply with ASME A17.1.
 - 3. Space siderails 16 inches apart, unless otherwise indicated.
 - 4. Support each ladder at top and bottom and not more than 60 inches o.c. with welded or bolted brackets, made from same metal as ladder.
- B. Steel Ladders:
 - 1. Siderails: Continuous, 3/8-by-2-1/2-inch steel flat bars, with eased edges.
 - 2. Rungs: 1-inch- diameter steel bars.
 - 3. Fit rungs in centerline of siderails; plug-weld and grind smooth on outer rail faces.
 - 4. Provide nonslip surfaces on top of each rung, either by coating rung with aluminum-oxide granules set in epoxy-resin adhesive or by using a type of manufactured rung filled with aluminum-oxide grout.
 - 5. Exterior ladders: Factory galvanized and finish per Division 9 Section "Painting".
 - 6. Interior ladders: Prime and finish per Division 9 section "Painting".

2.12 ABRASIVE METAL NOSINGS

- A. Extruded Units: Aluminum, with abrasive filler consisting of aluminum oxide, silicon carbide, or a combination of both, in an epoxy-resin binder. Fabricate units in sizes and configurations indicated and in lengths necessary to accurately fit openings or conditions.
 - 1. Provide anti-slip strip of contrasting color 2 inches wide, parallel to and not more than 1 inch from the front nose of each step.
- B. Provide anchors for embedding units in concrete, either integral or applied to units, as standard with manufacturer.
- C. Apply bituminous paint to concealed bottoms, sides, and edges of cast-metal units set into concrete.
- D. Apply clear lacquer to concealed bottoms, sides, and edges of extruded units set into concrete.

2.13 FINISHES, GENERAL

- A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
- B. Finish metal fabrications after assembly.

2.14 STEEL AND IRON FINISHES

- A. Galvanizing: Hot-dip galvanize items as indicated to comply with applicable standard listed below:
 - 1. ASTM A 123, for galvanizing steel and iron products.
 - 2. ASTM A 153, for galvanizing steel and iron hardware.
- B. Preparation for Shop Priming: Prepare uncoated ferrous-metal surfaces to comply with minimum requirements indicated below for SSPC surface preparation specifications and environmental exposure conditions of installed metal fabrications:
 - 1. Exteriors (SSPC Zone 1B) and Items Indicated to Receive Zinc-Rich Primer: SSPC-SP 6/NACE No. 3, "Commercial Blast Cleaning."
 - 2. Interiors (SSPC Zone 1A): SSPC-SP 3, "Power Tool Cleaning."
- C. Shop Priming: Apply shop primer to uncoated surfaces of metal fabrications, except those with galvanized finishes and those to be embedded in concrete, sprayed-on fireproofing, or masonry, unless otherwise indicated. Comply with SSPC-PA 1, "Paint Application Specification No. 1: Shop, Field, and Maintenance Painting of Steel," for shop painting.
- D. Field Finish: Comply with Division 9 Section "Painting" for field painting.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

- A. Cutting, Fitting, and Placement: Perform cutting, drilling, and fitting required for installing metal fabrications. Set metal fabrications accurately in location, alignment, and elevation; with edges and surfaces level, plumb, true, and free of rack; and measured from established lines and levels.
- B. Fit exposed connections accurately together to form hairline joints. Weld connections that are not to be left as exposed joints but cannot be shop welded because of shipping size limitations. Do not weld, cut, or abrade surfaces of exterior units that have been hot-dip galvanized after fabrication and are for bolted or screwed field connections.
- C. Field Welding: Comply with the following requirements:
 - 1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
 - 2. Obtain fusion without undercut or overlap.
 - 3. Remove welding flux immediately.
 - 4. At exposed connections, finish exposed welds and surfaces smooth and blended so no roughness shows after finishing and contour of welded surface matches that of adjacent surface.
- D. Fastening to In-Place Construction: Provide anchorage devices and fasteners where metal fabrications are required to be fastened to in-place construction. Provide threaded fasteners for use with concrete and masonry inserts, toggle bolts, through bolts, lag bolts, wood screws, and other connectors.

- E. Provide temporary bracing or anchors in formwork for items that are to be built into concrete, masonry, or similar construction.

3.2 INSTALLING NOSINGS

- A. Center nosings on tread widths.
- B. For nosings embedded in concrete steps or curbs, align nosings flush with riser faces and level with tread surfaces.
- C. Seal thresholds exposed to exterior with elastomeric sealant complying with Division 7 Section "Joint Sealants" to provide a watertight installation.

3.3 ADJUSTING AND CLEANING

- A. Touchup Painting: Immediately after erection, clean field welds, bolted connections, and abraded areas. Paint uncoated and abraded areas with the same material as used for shop painting to comply with SSPC-PA 1 for touching up shop-painted surfaces.
 - 1. Apply by brush or spray to provide a minimum 2.0-mil dry film thickness.
- B. Galvanized Surfaces: Clean field welds, bolted connections, and abraded areas and repair galvanizing to comply with ASTM A 780.

END OF SECTION 055000

SECTION 055213 - PIPE AND TUBE RAILINGS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Steel pipe and tube railings.
- B. Related Sections include the following:
 - 1. Division 9 Section "Painting" for field painting.

1.3 DEFINITIONS

- A. Exterior: Defined as the following:
 - 1. Areas, locations, and surfaces that are unprotected, or exposed to environmental elements.
 - 2. Areas, locations and surfaces within uncontrolled environments.
 - 3. Areas, locations and surfaces of unconditioned spaces, including belowgrade/underground, partially-exposed, or "covered" parking areas.

1.4 PERFORMANCE REQUIREMENTS

- A. General: In engineering railings to withstand structural loads indicated, determine allowable design working stresses of railing materials based on the following:
 - 1. Steel: 72 percent of minimum yield strength.
- B. Structural Performance: Provide railings capable of withstanding the effects of gravity loads and the following loads and stresses within limits and under conditions indicated:
 - 1. Handrails:
 - a. Uniform load of 50 lbf/ ft. applied in any direction.
 - b. Concentrated load of 200 lbf applied in any direction.
 - c. Uniform and concentrated loads need not be assumed to act concurrently.
 - 2. Top Rails of Guards:
 - a. Uniform load of 50 lbf/ ft. applied in any direction.
 - b. Concentrated load of 200 lbf applied in any direction.
 - c. Uniform and concentrated loads need not be assumed to act concurrently.
 - 3. Infill of Guards:
 - a. Uniform load of 25 lbf/sq. ft. applied horizontally.
 - b. Infill load and other loads need not be assumed to act concurrently.

- C. Thermal Movements: Provide exterior railings that allow for thermal movements resulting from the following maximum change (range) in ambient and surface temperatures by preventing buckling, opening of joints, overstressing of components, failure of connections, and other detrimental effects. Base engineering calculation on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.
 - 1. Temperature Change (Range): 120 deg F, ambient; 180 deg F, material surfaces.
- D. Control of Corrosion: Prevent galvanic action and other forms of corrosion by insulating metals and other materials from direct contact with incompatible materials.

1.5 SUBMITTALS

- A. Product Data: For the following:
 - 1. Grout, anchoring cement, and paint products.
- B. Shop Drawings: Include plans, elevations, sections, details, and attachments to other work.
 - 1. For installed products indicated to comply with design loads, include structural analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

1.6 QUALITY ASSURANCE

- A. Source Limitations: Obtain each type of railing through one source from a single manufacturer.
- B. Welding: Qualify procedures and personnel according to the following:
 - 1. AWS D1.1, "Structural Welding Code--Steel."
- C. Appearance: Galvanized articles shall be free from uncoated areas, blisters, flux deposits, acid and black spots, and dross inclusions. Lumps, projections, globules, or heavy deposits of zinc which will interfere with the intended use of the material will not be permitted.

1.7 COORDINATION AND SCHEDULING

- A. Coordinate installation of anchorages for railings. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.
- B. Schedule installation so wall attachments are made only to completed walls. Do not support railings temporarily by any means that do not satisfy structural performance requirements.

1.8 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of pipe and tube railings that fails in materials or workmanship within specified warranty period.
 - 1. Failures include, but are not limited to, the following:

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- a. Structural failures.
 - b. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
2. Warranty Period: 2 years.
- B. Installer's Warranty: 1 year.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Steel Pipe and Tube Railings:
1. Local iron fabricators.
- B. Nonshrink, Nonmetallic Grout:
1. 1107 Advantage Grout by Dayton Superior Chemical & Cement Products.
 2. Conset Grout by ChemMasters Specialty Construction Products.
 3. General-Purpose Grout by Symons.
 4. Or equal.

2.2 METALS, GENERAL

- A. Metal Surfaces, General: Provide materials with smooth surfaces, without seam marks, roller marks, rolled trade names, stains, discolorations, or blemishes.
- B. Brackets, Flanges, and Anchors: Cast or formed metal of same type of material and finish as supported rails, unless otherwise indicated.

2.3 STEEL AND IRON

- A. Pipe: ASTM A 53, Type F or Type S, Grade A, Standard Weight (Schedule 40), unless another grade and weight are required by structural loads.
1. Provide galvanized finish for exterior installations and where indicated.
- B. Plates, Shapes, and Bars: ASTM A 36.

2.4 FASTENERS

- A. General: Provide the following:
1. Steel Railings: Plated steel fasteners complying with ASTM B 633, Class Fe/Zn 25 for electrodeposited zinc coating.
- B. Fasteners for Anchoring Railings to Other Construction: Select fasteners of type, grade, and class required to produce connections suitable for anchoring railings to other types of construction indicated and capable of withstanding design loads.

1. Provide concealed fasteners for interconnecting railing components and for attaching them to other work, unless exposed fasteners are unavoidable or are the standard fastening method for railings indicated.
- C. Anchors: Provide cast-in-place anchors, fabricated from corrosion-resistant materials with capability to sustain, without failure, a load equal to six times the load imposed when installed in unit masonry and equal to four times the load imposed when installed in concrete, as determined by testing per ASTM E 488 conducted by a qualified independent testing agency.

2.5 MISCELLANEOUS MATERIALS

- A. Welding Rods and Bare Electrodes: Select according to AWS specifications for metal alloy welded.
- B. Shop Primer for Galvanized Steel: Zinc-dust, zinc-oxide primer formulated for priming zinc-coated steel and for compatibility with finish paint systems indicated, and complying with SSPC-Paint 5.
- C. Galvanizing Repair Paint: High-zinc-dust-content paint for regalvanizing welds in steel, complying with SSPC-Paint 20.
- D. Bituminous Paint: Cold-applied asphalt emulsion complying with ASTM D 1187.
- E. Nonshrink, Nonmetallic Grout: Factory-packaged, nonstaining, noncorrosive, nongaseous grout complying with ASTM C 1107. Provide grout specifically recommended by manufacturer for interior and exterior applications.

2.6 FABRICATION

- A. General: Fabricate railings to comply with requirements indicated for design, dimensions, member sizes and spacing, details, finish, and anchorage, but not less than that required to support structural loads.
- B. Assemble railings in the shop to greatest extent possible to minimize field splicing and assembly. Disassemble units only as necessary for shipping and handling limitations. Clearly mark units for reassembly and coordinated installation. Use connections that maintain structural value of joined pieces.
- C. Cut, drill, and punch metals cleanly and accurately. Remove burrs and ease edges to a radius of approximately 1/32 inch, unless otherwise indicated. Remove sharp or rough areas on exposed surfaces.
- D. Form work true to line and level with accurate angles and surfaces.
- E. Fabricate connections that will be exposed to weather in a manner to exclude water. Provide weep holes where water may accumulate.
- F. Cut, reinforce, drill, and tap as indicated to receive finish hardware, screws, and similar items.

- G. Connections: Fabricate railings with welded connections, unless otherwise indicated.
- H. Welded Connections: Cope components at connections to provide close fit, or use fittings designed for this purpose. Weld all around at connections, including at fittings.
 - 1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
 - 2. Obtain fusion without undercut or overlap.
 - 3. Remove flux immediately.
 - 4. At exposed connections, finish exposed surfaces smooth and blended so no roughness shows after finishing and welded surface matches contours of adjoining surfaces.
- I. Form changes in direction as detailed.
- J. Form simple and compound curves by bending members in jigs to produce uniform curvature for each repetitive configuration required; maintain cross section of member throughout entire bend without buckling, twisting, cracking, or otherwise deforming exposed surfaces of components.
- K. Close exposed ends of railing members with prefabricated end fittings.
- L. Provide wall returns at ends of wall-mounted handrails, unless otherwise indicated. Close ends of returns unless clearance between end of rail and wall is 1/4 inch or less.
- M. Brackets, Flanges, Fittings, and Anchors: Provide wall brackets, flanges, miscellaneous fittings, and anchors to interconnect railing members to other work, unless otherwise indicated.
 - 1. At brackets and fittings fastened to plaster or gypsum board partitions, provide fillers made from crush-resistant material, or other means to transfer wall loads through wall finishes to structural supports and prevent bracket or fitting rotation and crushing of substrate.
- N. Provide inserts and other anchorage devices for connecting railings to concrete or masonry work. Fabricate anchorage devices capable of withstanding loads imposed by railings. Coordinate anchorage devices with supporting structure.

2.7 FINISHES, GENERAL

- A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
- B. Appearance of Finished Work: Variations in appearance of abutting or adjacent pieces are acceptable if they are within one-half of the range of approved Samples. Noticeable variations in the same piece are not acceptable. Variations in appearance of other components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

2.8 STEEL AND IRON FINISHES

- A. Galvanized Railings:
 - 1. Hot-dip galvanize exterior steel and iron railings, including hardware, after fabrication.
 - 2. Comply with ASTM A 123 for hot-dip galvanized railings.
 - 3. Comply with ASTM A 153 for hot-dip galvanized hardware.

- B. For galvanized railings, provide hot-dip galvanized fittings, brackets, fasteners, sleeves, and other ferrous components.
- C. Preparation for Shop Priming: After galvanizing, thoroughly clean railings of grease, dirt, oil, flux, and other foreign matter, and treat with metallic-phosphate process.
- D. Apply shop primer to prepared surfaces of railings, unless otherwise indicated. Comply with requirements in SSPC-PA 1, "Paint Application Specification No. 1: Shop, Field, and Maintenance Painting of Steel," for shop painting. Primer need not be applied to surfaces to be embedded in concrete or masonry.
 - 1. Do not apply primer to galvanized surfaces.
 - 2. Stripe paint corners, crevices, bolts, welds, and sharp edges.
- E. Field Finish: Comply with Division 9 Section "High Performance Coatings" for field painting.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine plaster and gypsum board assemblies, where reinforced to receive anchors, to verify that locations of concealed reinforcements have been clearly marked for Installer. Locate reinforcements and mark locations if not already done.

3.2 INSTALLATION, GENERAL

- A. Fit exposed connections together to form tight, hairline joints.
- B. Perform cutting, drilling, and fitting required for installing railings. Set railings accurately in location, alignment, and elevation; measured from established lines and levels and free of rack.
 - 1. Do not weld, cut, or abrade surfaces of railing components that have been coated or finished after fabrication and that are intended for field connection by mechanical or other means without further cutting or fitting.
 - 2. Set posts plumb within a tolerance of 1/16 inch in 3 feet.
 - 3. Align rails so variations from level for horizontal members and variations from parallel with rake of steps and ramps for sloping members do not exceed 1/4 inch in 12 feet.
- C. Adjust railings before anchoring to ensure matching alignment at abutting joints.
- D. Fastening to In-Place Construction: Use anchorage devices and fasteners where necessary for securing railings and for properly transferring loads to in-place construction.

3.3 RAILING CONNECTIONS

- A. Welded Connections: Use fully welded joints for permanently connecting railing components. Comply with requirements for welded connections in Part 2 "Fabrication" Article whether welding is performed in the shop or in the field.

3.4 ANCHORING POSTS

- A. Use steel pipe sleeves preset and anchored into concrete for installing posts. After posts have been inserted into sleeves, fill annular space between post and sleeve with nonshrink, nonmetallic grout or anchoring cement, mixed and placed to comply with anchoring material manufacturer's written instructions.
- B. Leave anchorage joint exposed; wipe off surplus anchoring material; and leave 1/8-inch buildup, sloped away from post.

3.5 ANCHORING RAILING ENDS

- A. Anchor railing ends to concrete and masonry with round flanges connected to railing ends and anchored to wall construction with anchors and bolts.
- B. Anchor railing ends to metal surfaces with flanges bolted to metal surfaces and welded to railing ends.

3.6 ATTACHING HANDRAILS TO WALLS

- A. Attach handrails to wall with wall brackets. Provide brackets with 1-1/2-inch clearance from inside face of handrail and finished wall surface.
 - 1. Use type of bracket with flange tapped for concealed anchorage to threaded hanger bolt.
- B. Locate brackets as indicated or, if not indicated, at spacing required to support structural loads.
- C. Secure wall brackets to building construction as follows:
 - 1. For concrete and solid masonry anchorage, use drilled-in expansion shields and hanger or lag bolts.
 - 2. For hollow masonry anchorage, use toggle bolts.
 - 3. For steel-framed plaster partitions, fasten brackets directly to steel framing or concealed steel reinforcements using self-tapping screws of size and type required to support structural loads.

3.7 ADJUSTING AND CLEANING

- A. Clean aluminum and stainless steel by washing thoroughly with clean water and soap and rinsing with clean water.
- B. Touchup Painting: Immediately after erection, clean field welds, bolted connections, and abraded areas of shop paint, and paint exposed areas with same material as used for shop painting to comply with SSPC-PA 1 for touching up shop-painted surfaces.
- C. Galvanized Surfaces: Clean field welds, bolted connections, and abraded areas and repair galvanizing to comply with ASTM A 780.

3.8 PROTECTION

- A. Protect finishes of railings from damage during construction period with temporary protective coverings approved by railing manufacturer. Remove protective coverings at time of Substantial Completion.
- B. Restore finishes damaged during installation and construction period so no evidence remains of correction work. Return items that cannot be refinished in the field to the shop; make required alterations and refinish entire unit, or provide new units.

END OF SECTION 055213

SECTION 061053 - MISCELLANEOUS ROUGH CARPENTRY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 1. Wood blocking, cants, and nailers.
 2. Plywood backing panels.

1.3 SUBMITTALS

- A. Product Data: For each type of process and factory-fabricated product. Indicate component materials and dimensions and include construction and application details.
 1. Include data for wood-preservative treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements. Indicate type of preservative used and net amount of preservative retained.
 2. Include data for fire-retardant treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements. Include physical properties of treated materials based on testing by a qualified independent testing agency.
 3. For fire-retardant treatments specified to be High-Temperature (HT) type include physical properties of treated lumber both before and after exposure to elevated temperatures, based on testing by a qualified independent testing agency according to ASTM D 5664.
 4. For products receiving a waterborne treatment, include statement that moisture content of treated materials was reduced to levels specified before shipment to Project site.
 5. Include copies of warranties from chemical treatment manufacturers for each type of treatment.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Stack lumber flat with spacers between each bundle to provide air circulation. Provide for air circulation around stacks and under coverings.
- B. Deliver interior wood materials that are to be exposed to view only after building is enclosed and weatherproof, wet work other than painting is dry, and HVAC system is operating and maintaining temperature and humidity at occupancy levels.

1.5 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of miscellaneous carpentry that fails in materials or workmanship within specified warranty period.
 - 1. Failures include, but are not limited to, the following:
 - a. Structural failures.
 - 2. Warranty Period: 1 year.
- B. Installer's Warranty: 1 year.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Wood Backing or Blocking:
 - 1. Danback International.
 - 2. Or equal.

2.2 WOOD PRODUCTS, GENERAL

- A. Lumber: DOC PS 20 and applicable rules of grading agencies indicated. If no grading agency is indicated, provide lumber that complies with the applicable rules of any rules-writing agency certified by the ALSC Board of Review. Provide lumber graded by an agency certified by the ALSC Board of Review to inspect and grade lumber under the rules indicated.
 - 1. Factory mark each piece of lumber with grade stamp of grading agency.
 - 2. For exposed lumber indicated to receive a stained or natural finish, mark grade stamp on end or back of each piece or omit grade stamp and provide certificates of grade compliance issued by grading agency.
 - 3. Where nominal sizes are indicated, provide actual sizes required by DOC PS 20 for moisture content specified. Where actual sizes are indicated, they are minimum dressed sizes for dry lumber.
 - 4. Provide dressed lumber, S4S, unless otherwise indicated.

2.3 FIRE-RETARDANT-TREATED MATERIALS

- A. General: Comply with performance requirements in AWPA C20 (lumber) and AWPA C27 (plywood).
 - 1. Use treatment that does not promote corrosion of metal fasteners.
 - 2. Use Exterior type for exterior locations and where indicated.
- B. Identify fire-retardant-treated wood with appropriate classification marking of testing and inspecting agency acceptable to authorities having jurisdiction.
 - 1. For exposed lumber indicated to receive a stained or natural finish, mark end or back of each piece or omit marking and provide certificates of treatment compliance issued by inspection agency.
- C. For exposed items indicated to receive a stained or natural finish, use chemical formulations that do not bleed through, contain colorants, or otherwise adversely affect finishes.

- D. Application: Treat all miscellaneous carpentry, unless otherwise indicated.

2.4 DIMENSION LUMBER FRAMING

- A. Maximum Moisture Content: 15 percent for 2-inch nominal thickness or less, 19 percent for more than 2-inch nominal thickness.
- B. Non-Load-Bearing Interior Partitions: Construction or No. 2 grade of any species.

2.5 MISCELLANEOUS LUMBER

- A. General: Provide miscellaneous lumber indicated and lumber for support or attachment of other construction, including the following:
 - 1. Blocking.
 - 2. Nailers.
 - 3. Rooftop equipment bases and support curbs.
 - 4. Cants.
 - 5. Furring.
- B. For items of dimension lumber size, provide Construction or No. 2 grade lumber.
- C. For blocking and nailers used for attachment of other construction, select and cut lumber to eliminate knots and other defects that will interfere with attachment of other work.
- D. For furring strips for installing plywood or hardboard paneling, select boards with no knots capable of producing bent-over nails and damage to paneling.

2.6 PLYWOOD BACKING PANELS

- A. Telephone and Electrical Equipment Backing Panels: DOC PS 1, Exposure 1, C-D Plugged, fire-retardant treated, in thickness indicated or, if not indicated, not less than 1/2-inch nominal thickness.

2.7 MANUFACTURED WOOD BACKING OR BLOCKING FOR METAL STUDS

- A. Product DANBACK or equal.
 - 1. 3/4 inch thick plywood.
 - 2. Standard or fire-rated sections.
 - 3. EPA registered protection against termites & fungal decay.
 - 4. Used as backing plate for fixtures in metal stud walls.

2.8 FASTENERS

- A. General: Provide fasteners of size and type indicated that comply with requirements specified in this Article for material and manufacture.

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1. Where carpentry is exposed to weather, in ground contact, pressure-preservative treated, or in area of high relative humidity, provide fasteners with hot-dip zinc coating complying with ASTM A 153.
- B. Nails, Brads, and Staples: ASTM F 1667.
- C. Power-Driven Fasteners: NES NER-272.
- D. Wood Screws: ASME B18.6.1.
- E. Screws for Fastening to Cold-Formed Metal Framing: ASTM C 954, except with wafer heads and reamer wings, length as recommended by screw manufacturer for material being fastened.
- F. Lag Bolts: ASME B18.2.1.
- G. Bolts: Steel bolts complying with ASTM A 307, Grade A; with ASTM A 563 hex nuts and, where indicated, flat washers.
- H. Expansion Anchors: Anchor bolt and sleeve assembly of material indicated below with capability to sustain, without failure, a load equal to 6 times the load imposed when installed in unit masonry assemblies and equal to 4 times the load imposed when installed in concrete as determined by testing per ASTM E 488 conducted by a qualified independent testing and inspecting agency.
 1. Material: Carbon-steel components, zinc plated to comply with ASTM B 633, Class Fe/Zn 5.

2.9 METAL FRAMING ANCHORS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 1. Cleveland Steel Specialty Co.
 2. Harlen Metal Products, Inc.
 3. KC Metals Products, Inc.
 4. Simpson Strong-Tie Co., Inc.
 5. Southeastern Metals Manufacturing Co., Inc.
 6. USP Structural Connectors.
 7. Or equal.
- B. Galvanized Steel Sheet: Hot-dip, zinc-coated steel sheet complying with ASTM A 653, G60 coating designation.
 1. Use for interior locations where stainless steel is not indicated.
- C. Stainless-Steel Sheet: ASTM A 666, Type 304.
 1. Use for exterior locations and where indicated.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

- A. Set carpentry to required levels and lines, with members plumb, true to line, cut, and fitted. Fit carpentry to other construction; scribe and cope as needed for accurate fit. Locate furring, nailers, blocking, grounds, and similar supports to comply with requirements for attaching other construction.
- B. Framing Standard: Comply with AF&PA's "Details for Conventional Wood Frame Construction," unless otherwise indicated.
- C. Metal Framing Anchors: Install metal framing to comply with manufacturer's written instructions.
- D. Do not splice structural members between supports, unless otherwise indicated.
- E. Provide blocking and framing as indicated and as required to support facing materials, fixtures, specialty items, and trim.
 - 1. Provide metal clips for fastening gypsum board or lath at corners and intersections where framing or blocking does not provide a surface for fastening edges of panels. Space clips not more than 16 inches o.c.
- F. Provide fire blocking in furred spaces, stud spaces, and other concealed cavities as indicated and as follows:
 - 1. Fire block furred spaces of walls, at each floor level, at ceiling, and at not more than 96 inches o.c. with solid wood blocking or noncombustible materials accurately fitted to close furred spaces.
 - 2. Fire block concealed spaces of wood-framed walls and partitions at each floor level, at ceiling line of top story, and at not more than 96 inches o.c. Where fire blocking is not inherent in framing system used, provide closely fitted solid wood blocks of same width as framing members and 2-inch nominal- thickness.
 - 3. Fire block concealed spaces between floor sleepers with same material as sleepers to limit concealed spaces to not more than 100 sq. ft. and to solidly fill space below partitions.
- G. Sort and select lumber so that natural characteristics will not interfere with installation or with fastening other materials to lumber. Do not use materials with defects that interfere with function of member or pieces that are too small to use with minimum number of joints or optimum joint arrangement.
- H. Comply with AWWA M4 for applying field treatment to cut surfaces of preservative-treated lumber.
 - 1. Use inorganic boron for items that are continuously protected from liquid water.
 - 2. Use copper naphthenate for items not continuously protected from liquid water.
- I. Securely attach carpentry work to substrate by anchoring and fastening as indicated, complying with the following:
 - 1. Table 2304.9.1, "Fastening Schedule," in ICC's International Building Code.
 - 2. Table 23-II-B-1, "Nailing Schedule," and Table 23-II-B-2, "Wood Structural Panel Roof Sheathing Nailing Schedule," in ICBO's Uniform Building Code.

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3. Table R602.3(1), "Fastener Schedule for Structural Members," and Table R602.3(2), "Alternate Attachments," in ICC's International Residential Code for One- and Two-Family Dwellings.
 4. Table 602.3(1), "Fastener Schedule for Structural Members," and Table 602.3(2), "Alternate Attachments," in ICC's International One- and Two-Family Dwelling Code.
- J. Use common wire nails, unless otherwise indicated. Select fasteners of size that will not fully penetrate members where opposite side will be exposed to view or will receive finish materials. Make tight connections between members. Install fasteners without splitting wood; do not countersink nail heads, unless otherwise indicated.

3.2 WOOD BLOCKING, AND NAILER INSTALLATION

- A. Install where indicated and where required for attaching other work. Form to shapes indicated and cut as required for true line and level of attached work. Coordinate locations with other work involved.
- B. Attach items to substrates to support applied loading. Recess bolts and nuts flush with surfaces, unless otherwise indicated.
- C. Provide permanent grounds of dressed, pressure-preservative-treated, key-beveled lumber not less than 1-1/2 inches wide and of thickness required to bring face of ground to exact thickness of finish material. Remove temporary grounds when no longer required.

3.3 PROTECTION

- A. Protect wood that has been treated with inorganic boron (SBX) from weather. If, despite protection, inorganic boron-treated wood becomes wet, apply EPA-registered borate treatment. Apply borate solution by spraying to comply with EPA-registered label.
- B. Protect rough carpentry from weather. If, despite protection, rough carpentry becomes wet, apply EPA-registered borate treatment. Apply borate solution by spraying to comply with EPA-registered label.

END OF SECTION 061053

SECTION 064023 - INTERIOR ARCHITECTURAL WOODWORK

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 1. Plastic-laminate cabinets.
 2. Plastic-laminate countertops (tables).

1.3 DEFINITIONS

- A. Interior architectural woodwork includes wood furring, blocking, shims, and hanging strips for installing woodwork items unless concealed within other construction before woodwork installation.

1.4 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Shop Drawings: Show location of each item, dimensioned plans and elevations, large-scale details, attachment devices, and other components.
 1. Show locations and sizes of furring, blocking, and hanging strips, including concealed blocking and reinforcement specified in other Sections.
 2. Show locations and sizes of cutouts and holes for plumbing fixtures and other items installed in architectural woodwork.
 3. Apply WI-certified compliance label to first page of Shop Drawings and follow Section 1, "Guidelines for Architectural Millwork Shop Drawing".
- C. Samples for Verification:
 1. Plastic laminates, 8 by 10 inches, for each type, color, pattern, and surface finish, with 1 sample applied to core material and specified edge material applied to 1 edge.
 2. Corner pieces as follows:
 - a. Cabinet-front frame joints between stiles and rails, as well as exposed end pieces, 18 inches high by 18 inches wide by 6 inches deep.
 - b. Miter joints for standing trim.
 3. Exposed cabinet hardware and accessories, one unit for each type and finish.
 - a. Hardware samples will be returned up on approval.
- D. Product Certificates: For each type of product, signed by product manufacturer.

- E. Woodwork Quality Standard Compliance Certificates for Product and Installation: WI-certified compliance certificates confirming conformance with Certified Compliance Program (CCP).
- F. Qualification Data: For Installer and fabricator.

1.5 QUALITY ASSURANCE

- A. Fabricator Qualifications: Shop that employs skilled workers who custom-fabricate products similar to those required for this Project and whose products have a record of successful in-service performance. Shop is a licensee of WI's Certified Compliance Program.
- B. Installer Qualifications: Licensee of WI's Certified Compliance Program.
- C. Quality Standard: Unless otherwise indicated, comply with WI's "Manual of Millwork" for grades of interior architectural woodwork indicated for construction, finishes, installation, and other requirements.
 - 1. Before delivery to job-site, Millwork supplier:
 - a. Licensees of WI shall issue a certified compliance certificate indicating millwork products being furnished for this project, and certifying that these products and their installation, will fully meet requirements of grade or grades specified.
 - b. Non-Licensees of WI shall provide evidence that they have arranged for inspection by WI inspector after completion of fabrication and installation. If conditions are found to be compliant, inspector will issue Compliance Certificate indicating millwork products being furnished for this project, and certifying that these products and their installation, will fully meet requirements of grade or grades specified.
 - 2. Each elevation of casework and each countertop shall bear certified compliance label.
 - 3. Cabinet Design Series (CDS): CDS numbers on Drawings indicate typical designs.
- D. Certified Seismic Installation Program (CSIP):
 - 1. Before wood or metal stud walls are closed up provide a written Woodwork Institute Certified Seismic Installation Program (CSIP) report confirming that acceptable backing is provided in all locations required for casework installation or identifying those locations where backing is missing or improperly located. a. Backing shall consist of a minimum of either 3 x 6 Flat Douglas Fir or 16GA., 50 KSI sheet metal .
 - 2. On completion of installation provide a Woodwork Institute Certified Seismic Installation Program Certificate, identifying the work covered and certifying that installation meets the requirements of the WI CSIP attachment details and schedules.
 - 3. All fees charged by the Woodwork Institute for their Certified Seismic Installation Program are the responsibility of the millwork installer and shall be included in their bid.
- E. Fire-Test-Response Characteristics: Where fire-retardant materials or products are indicated, provide materials and products with specified fire-test-response characteristics as determined by testing identical products per test method indicated by UL, ITS, or another testing and inspecting agency acceptable to authorities having jurisdiction. Identify with appropriate markings of applicable testing and inspecting agency in the form of separable paper label or, where required by authorities having jurisdiction, imprint on surfaces of materials that will be concealed from view after installation.
- F. Preinstallation Conference: Conduct conference at Project site.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Do not deliver woodwork until painting and similar operations that could damage woodwork have been completed in installation areas. If woodwork must be stored in other than installation areas, store only in areas where environmental conditions comply with requirements specified in "Project Conditions" Article.

1.7 PROJECT CONDITIONS

- A. Environmental Limitations: Do not deliver or install woodwork until building is enclosed, wet work is complete, and HVAC system is operating and maintaining temperature and relative humidity at occupancy levels during the remainder of the construction period.
- B. Environmental Limitations: Do not deliver or install woodwork until building is enclosed, wet work is complete, and HVAC system is operating and maintaining temperature between 60 and 90 deg F and relative humidity between 25 and 55 percent during the remainder of the construction period.
- C. Field Measurements: Where woodwork is indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication, and indicate measurements on Shop Drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
 - 1. Locate concealed framing, blocking, and reinforcements that support woodwork by field measurements before being enclosed, and indicate measurements on Shop Drawings.
 - 2. Established Dimensions: Where field measurements cannot be made without delaying the Work, establish dimensions and proceed with fabricating woodwork without field measurements. Provide allowance for trimming at site, and coordinate construction to ensure that actual dimensions correspond to established dimensions.

1.8 COORDINATION

- A. Coordinate sizes and locations of framing, blocking, furring, reinforcements, and other related units of Work specified in other Sections to ensure that interior architectural woodwork can be supported and installed as indicated.

1.9 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of interior architectural woodwork that fails in materials or workmanship within specified warranty period.
 - 1. Warranty Period: 2 years.
- B. Installer's Warranty: 1 year.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. High-Pressure Decorative Laminate:
 - 1. Wilsonart International; Div. of Premark International, Inc. (Basis of Design)
 - 2. Formica Corporation.
 - 3. Nevamar Company, LLC; Decorative Products Div.
 - 4. Arpa.
 - 5. Abet Laminati.
 - 6. Or equal.
- B. Medium-Density Fiberboard:
 - 1. Medex, Medex NC, Medite II, or Arreis SDF by SierraPine Ltd.
 - 2. Weyerhaeuser Company; Premier Plus by Weyerhaeuser.
 - 3. Or equal.
- C. Particleboard:
 - 1. Rodman Industries, Inc.
 - 2. Acadia Board Company.
 - 3. PrimeBoard, Inc.
 - 4. Or equal.

2.2 MATERIALS

- A. General: Provide materials that comply with requirements of WI's quality standard for each type of woodwork and quality grade specified, unless otherwise indicated.
- B. Core and Substrates: Comply with the following:
 - 1. Backs of cabinets, book cases, etc.
 - a. Hardboard: AHA A135.4.
 - 2. Wood Veneer-Faced Panel Products, melamine, and shelving:
 - a. Hardwood Plywood: HPVA HP-1, made with adhesive containing no urea formaldehyde.
- C. Plastic Laminate:
 - 1. Product: Compact laminates by Wilsonart or equal.
 - a. Grade: Classic grade.
 - b. Laminate Conformance Standard: NEMA LD 3, Grade CGS.
 - c. Finish: Matte -60.
 - d. Color: As indicated on Drawings.

2.3 CABINET HARDWARE AND ACCESSORIES

- A. Adjustable Shelf Pilaster Standards: Side-mounted system using multiple holes for pin supports and coordinated self rests, polished chrome finish, for nominal 1 inch spacing adjustments.
 - 1. 23 gauge high strength steel.
 - 2. 39/64" wide x 11/64" deep.

3. BHMA Grade 1 approved.
- B. Shelf Support Pins:
 1. Stainless steel.
 2. Pin diameter for 5 mm hole (approx 13/64 inch).
- C. Grommets: Plastic, 2 inch diameter, locations as indicated. If locations are not indicated, as selected by Architect during shop drawing review.
 1. Doug Mockett or equal.
- D. Drawer and Door Pulls: For all, including accessible casework.
 1. "U" shaped wire pull, aluminum with satin finish, 4 inch centers.
- E. Cabinet Locks: Keyed cylinder, two keys per lock, master keyed, steel with chrome finish to key with door hardware. All doors and drawers to be lockable.
- F. Hinges: Concealed (fully mortised) self-closing type, BHMA No. 652, steel with polished finish.
- G. Drawer Slides: BHMA A156.9, B05091.
 1. Heavy Duty (Grade 1HD-200): Side mounted; full-extension type; zinc-plated steel ball-bearing slides.
- H. Pocket Door Slide:
 1. 8090 Series Pivot Door Slides by Knape & Vogt or equal.
 - a. 8091/92 4x4 pocket Door Slide by Knape & Vogt or equal.

2.4 MISCELLANEOUS MATERIALS

- A. Furring, Blocking, Shims, and Hanging Strips: Softwood or hardwood lumber, kiln dried to less than 15 percent moisture content.
- B. Anchors: Select material, type, size, and finish required for each substrate for secure anchorage. Provide nonferrous-metal or hot-dip galvanized anchors and inserts on inside face of exterior walls and elsewhere as required for corrosion resistance. Provide toothed-steel or lead expansion sleeves for drilled-in-place anchors.
- C. Adhesives, General: Do not use adhesives that contain urea formaldehyde.
- D. VOC Limits for Installation Adhesives and Glues: Use installation adhesives that comply with the following limits for VOC content when calculated according to 40 CFR 59, Subpart D (EPA Method 24):
 1. Wood Glues: 30 g/L.
 2. Contact Adhesive: 250 g/L.
- E. Adhesive for Bonding Plastic Laminate: Unpigmented contact cement.
 1. Adhesive for Bonding Edges: Hot-melt adhesive or adhesive specified above for faces.

2.5 FABRICATION, GENERAL

- A. Interior Woodwork Grade: Unless otherwise indicated, provide Custom-grade interior woodwork complying with referenced quality standard.
- B. Wood Moisture Content: Comply with requirements of referenced quality standard for wood moisture content in relation to ambient relative humidity during fabrication and in installation areas.
- C. Complete fabrication, including assembly, finishing, and hardware application, to maximum extent possible before shipment to Project site. Disassemble components only as necessary for shipment and installation. Where necessary for fitting at site, provide ample allowance for scribing, trimming, and fitting.
 - 1. Notify Architect 7 days in advance of the dates and times woodwork fabrication will be complete.
 - 2. Trial fit assemblies at fabrication shop that cannot be shipped completely assembled. Install dowels, screws, bolted connectors, and other fastening devices that can be removed after trial fitting. Verify that various parts fit as intended and check measurements of assemblies against field measurements indicated on Shop Drawings before disassembling for shipment.
- D. Shop-cut openings to maximum extent possible to receive hardware, appliances, plumbing fixtures, electrical work, and similar items. Locate openings accurately and use templates or roughing-in diagrams to produce accurately sized and shaped openings. Sand edges of cutouts to remove splinters and burrs.
 - 1. Seal edges of openings in countertops with a coat of varnish.
- E. Drawer bottoms to be fully let-in, glued and blocked. Joinery must be lapped and mitered, no butt joints.

2.6 PLASTIC-LAMINATE CABINETS

- A. WI Construction Style: Style A, Frameless.
- B. WI Construction Type: Type I, multiple self-supporting units rigidly joined together.
- C. WI Door and Drawer Front Style: Flush overlay.
- D. Exposed Surfaces: Compact laminates.
- E. Concealed Surfaces: Any of one of following.
 - 1. Solid Wood or Plywood: Any hardwood or softwood species, with no defects affecting strength or utility. Hardwood and softwood lumber kiln dried to 7 and 10 percent moisture content, respectively.
 - 2. Particleboard: ANSI A208.1, Grade M-2.
 - 3. Medium-Density Fiberboard: ANSI A208.2.
 - 4. Solid Phenolic core (SPC).

2.7 PLASTIC-LAMINATE COUNTERTOPS

- A. Product: Compact laminates.
- B. Colors, Patterns, and Finishes: Provide materials and products that result in colors and textures of exposed laminate surfaces.
- C. Edge Treatment: Self-edge banded.
- D. Core material for countertops at dry locations: MDF Grade 130, NAUF.
- E. Backer Sheet: Provide plastic-laminate backer sheet, Grade BKL, on underside of countertop substrate.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Before installation, condition woodwork to average prevailing humidity conditions in installation areas.
- B. Before installing architectural woodwork, examine shop-fabricated work for completion and complete work as required, including removal of packing and backpriming.

3.2 INSTALLATION

- A. Grade: Install woodwork to comply with requirements for the same grade specified in Part 2 for fabrication of type of woodwork involved.
- B. Assemble woodwork and complete fabrication at Project site to comply with requirements for fabrication in Part 2, to extent that it was not completed in the shop.
- C. Install woodwork level, plumb, true, and straight. Shim as required with concealed shims. Install level and plumb (including tops) to a tolerance of 1/8 inch in 96 inches.
- D. Scribe and cut woodwork to fit adjoining work, refinish cut surfaces, and repair damaged finish at cuts.
- E. Anchor woodwork to anchors or blocking built in or directly attached to substrates. Secure with countersunk, concealed fasteners and blind nailing as required for complete installation. Use fine finishing nails or finishing screws for exposed fastening, countersunk and filled flush with woodwork and matching final finish if transparent finish is indicated.
- F. Cabinets: Install without distortion so doors and drawers fit openings properly and are accurately aligned. Adjust hardware to center doors and drawers in openings and to provide unencumbered operation. Complete installation of hardware and accessory items as indicated.
 - 1. Install cabinets with no more than 1/8 inch in 96-inch sag, bow, or other variation from a straight line.

2. Fasten wall cabinets through back, near top and bottom, at ends and not more than 16 inches o.c. with No. 10 wafer-head screws sized for 1-inch penetration into wood framing, blocking, or hanging strips.
- G. Countertops: Anchor securely by screwing through corner blocks of base cabinets or other supports into underside of countertop.
1. Install countertops with no more than 1/8 inch in 96-inch sag, bow, or other variation from a straight line.
 2. Secure backsplashes to tops with concealed metal brackets at 16 inches o.c. and to walls with adhesive.
 3. Caulk space between backsplash and wall with sealant specified in Division 7 Section "Joint Sealants."
- H. Touch up finishing work specified in this Section after installation of woodwork. Fill nail holes with matching filler where exposed.

3.3 FIELD QUALITY CONTROL

- A. Provide Woodwork Institute Certified Seismic Installation Program (CSIP) inspection reports and certification as required in Part 1 of this Section.

3.4 ADJUSTING AND CLEANING

- A. Repair damaged and defective woodwork, where possible, to eliminate functional and visual defects; where not possible to repair, replace woodwork. Adjust joinery for uniform appearance.
- B. Clean, lubricate, and adjust hardware.
- C. Clean woodwork on exposed and semiexposed surfaces. Touch up shop-applied finishes to restore damaged or soiled areas.

END OF SECTION 064023

SECTION 071909 - CONCRETE MOISTURE AND ALKALINITY TESTING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for independent testing and inspection requirements for concrete moisture and alkalinity.
- B. Related Sections include the following:
 - 1. Division 7 Section “Concrete Moisture and Alkalinity Barrier” for concrete sealers to reduce moisture and alkalinity level when testing fails.

1.3 SUBMITTALS

- A. Independent testing agency qualifications: Past 4 year history of testing of comparable project size and scope.
- B. Product data: Moisture test kit.
- C. Testing Results: Provide interior temperature, humidity, moisture vapor and alkalinity results for testing period.
 - 1. Alkalinity Test Report.
 - 2. Moisture Test Report.
- D. Locations Map: Provide each testing result documented on a locations map. Map may be finish floor plan by Architect or similar representation.
- E. Record Submittals: Testing reports and locations map.

1.4 SCHEDULING

- A. Site Meeting: Testing Agency, Owner, Architect and Contractor shall meet 30 days prior to flooring installation to discuss testing requirements, specifications and locations prior to testing.

PART 2 - PRODUCTS

2.1 MOISTURE TESTING

- A. Test Method: ASTM F2170, Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using in situ Probes.
 - 1. ASTM F 1869, Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride is NOT acceptable method.
- B. The In-Situ Method:
 - 1. In-situ probes deepen concrete moisture measurement. For decades, builders used (and some still do) the anhydrous calcium chloride test for concrete moisture vapor emissions rate (MVER). The MVER is defined as the rate of water vapor emissions from the surface of concrete and is determined with the use of a desiccant material sealed to the slab surface for a specified time period, then measured. It has been believed that the change in the desiccant weight could be translated into a moisture ratio for the concrete beneath.
 - 2. In-situ concrete moisture testing places sensors, or probes, inside the slab itself. As concrete dries, moisture migrates from the bottom of the slab to the surface where it can evaporate away. Logically then, moisture levels at the bottom of a slab will read higher from those at the surface. In-situ probes provide relative humidity (RH) measurements at 40% of the slab's depth*, a position proven to more accurately portray the final RH levels of the slab if it were to be sealed at that point in time and the slab moisture allowed to fully equilibrate.
- C. Acceptable Testing Devices for ASTM F2170 Test:
 - 1. Wagner Meters Rapid RH® system by Wagner.
 - 2. Protimeter by T Equipment.
 - 3. Relative Humidity Meter system by American Moisture Test.
 - 4. Or equal.

2.2 ALKALINITY TESTING

- A. Alkalinity Test, ASTM F 710, Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring
 - 1. Digital wide range 1–14 pH meter.
 - 2. Waterproof flat tip.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Site: Weatherproofed, doors installed and windows secured. Do not start testing process when site has standing water, surface contaminates, exposed to exterior conditions or concrete installation is less than 90 days of age.

3.2 PREPARATION

- A. Clean concrete substrates of adhesives residue, paint, curing, sealing, floor coverings a minimum of 24 hours prior to installation of testing equipment.
- B. Temperature & Humidity: Maintain site at the temperature and humidity conditions to those anticipated during normal occupancy and maintain these conditions minimum of 7 days (exceed ASTM F1869 requirements) prior and during testing period.
- C. When a building is not under HVAC control, a recording hygrometer or data logger shall be in place recording conditions during the test period. A transcript of this information must be included with testing results.

3.3 MOISTURE TESTING

- A. In-Situ Probe Test: Perform relative-humidity test using in-situ probes per ASTM F2170.
- B. Floor shall have reading of 95% or less per ASTM F2170; unless finish flooring product require better value.

3.4 ALKALINITY TESTING

- A. Test: Perform pH testing per ASTM F710.
- B. pH range between 8 and 10; unless finish flooring product require better value.

3.5 FIELD QUALITY CONTROL

- A. Testing: Engage and pay for qualified independent testing agency specified to perform the following field tests and inspections and prepare test reports:
 - 1. Testing agency shall perform tests for characteristics specified, using applicable referenced testing procedures.
 - 2. Testing agency shall verify thickness of coatings during traffic coating application.
 - 3. If test results show coating materials do not comply with requirements, remove noncomplying materials, prepare surfaces, and reapply coatings.
- B. Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.

END OF SECTION 071909

SECTION 071910 - CONCRETE FLOOR SEALER

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes concrete sealer.

1.3 SUBMITTALS

- A. Product Data: For each type of product indicated.
 - 1. Include manufacturer's printed statement of VOC content.
- B. Samples: For each type of sealer and substrate indicated, 12 by 12 inches in size, with specified water-repellent treatment applied to half of each Sample.
- C. Manufacturer Certificates: Signed by manufacturers certifying that water repellents comply with requirements.
- D. Qualification Data: For Installer.
- E. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, for assemblies.
- F. Warranty: Special warranty specified in this Section.

1.4 QUALITY ASSURANCE

- A. Installer Qualifications: An employer of workers trained and approved by manufacturer.
- B. Preinstallation Conference: Conduct conference at Project site.

1.5 PROJECT CONDITIONS

- A. Limitations: Proceed with application only when the following existing and forecasted weather and substrate conditions permit water repellents to be applied according to manufacturers' written instructions and warranty requirements:
 - 1. Ambient temperature is above 40 deg F.
 - 2. Concrete surfaces and mortar have cured for more than 28 days.
 - 3. Concrete or brick masonry walls are not treated prior to 30 days after building close-in.
 - 4. Rain or snow is not predicted within 24 hours.

5. Application proceeds more than 24 hours after surfaces have been wet.
6. Substrate is not frozen, or surface temperature is above 40 deg F.
7. Windy conditions do not exist that may cause water repellent to be blown onto vegetation or surfaces not intended to be treated.

1.6 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer and Applicator agree(s) to repair or replace materials that fail to maintain water repellency.
 1. Warranty Period: 2 years.
- B. Installer's Warranty: 1 year.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Patching compound, cementitious, thin patching and skim-coating material, designed for reducing surface defects on interior floors. : Subject to compliance with requirements, provide either the named product or an equal product by one of the other manufacturers specified.
 1. Degussa.
 2. ChemMasters.
 3. Or equal.
- B. Concrete Clear Sealer for protecting floors: Subject to compliance with requirements, provide either the named product or an equal product by one of the other manufacturers specified.
 1. Consolideck LS by Prosoco. (Basis of Design)
 2. Scofield.
 3. Degussa.
 4. ChemMasters.
 5. Or equal.

2.2 PENETRATING WATER REPELLENTS

- A. General: Sealants applied on the interior of the building envelope shall comply with South Coast Air Quality Management District (SCAQMD) Rule 1168.

2.3 PATCHING COMPOUND

- A. Patching compound, cementitious, thin patching and skim-coating material, designed for reducing surface defects on interior floors.
 1. Composition and Materials:
 - a. Complex, precisely engineered, polymer-modified, cementitious, thin patching material produced by a proprietary manufacturing and intergrinding process.

- b. Designed for ease of mixing and installation, superior adhesion without priming, and rapid strength gain, it is a single-component, non-gypsum-based, powdered material containing no sand or calcium chloride.

2.4 SEALER

- A. Product: Consolideck LS by Prosoco or equal.
 1. Premium hardener, densifier and sealer for concrete surfaces.
 2. Penetrating lithium silicate treatment reacts with the concrete to produce insoluble calcium silicate hydrate within the concrete pores.
 3. Treated surfaces resist damage from water and surface abrasion.
 4. Reduces dusting and simplifies maintenance.
 5. Will not trigger or contribute to surface ASR (alkali silicate reaction).
 6. Technical Data:
 - a. Form: Clear, water-like liquid.
 - b. pH: 11.0.
 - c. Active Content: 14.5 percent.
 - d. Total Solids: 14.5 percent.
 - e. VOC Content: 0 grams per Litter. Complies with all known national, state and district AIM VOC regulations.
 - f. Flash Point: Not flammable.
 - g. SCS Certified: Indoor air quality, Gold.
 - h. NSF: nonfood compounds program listed R2, Registration #142259.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Freshly Placed, Uncured Steel-Troweled Concrete
 1. After final finishing, soft cut control joints. Clean concrete of any dirt, residue or soft cut saw debris.
 2. Using a low pressure sprayer fitted with a 0.5 gallon per minute tip, apply a single coat of Consolideck® LS®. Lightly apply sufficient product to wet the surface without producing puddles.
 3. Use a clean, soft bristle push broom or microfiber pad to spread the product evenly and ensure uniform wetting. Avoid spreading once drying begins. Scrubbing is not necessary.
 4. If surfaces dry immediately, increase the rate of application. Surface should remain wet for 5 to 10 minutes. Adjust rate of application to eliminate puddles. Allowing excess material to puddle on the floor will extend dry times and create white residues which must be removed immediately. Allow treated surfaces to dry.
 5. Immediately apply the specified curing compound or initiate the specified curing procedure.
 6. When the curing process is complete, use an automatic floor scrubber equipped with cleaning pads or brushes appropriate for removal of accumulated construction soiling and surface residues. Avoid pads or brushes which may damage the finished floor.
- B. Cured, Steel Troweled Concrete

1. Remove all dirt, debris, or curing compounds using the appropriate surface prep cleaner. Allow cleaning waters used in surface preparation to dry.
 2. The prepared surface must wet uniformly. Confirm surface absorbency with a light water spray. In hot, dry weather, pre-wet the concrete with fresh water. Allow any standing water to evaporate.
 3. Apply a single coat using a low pressure sprayer fitted with a 0.5 gallon per minute spray tip. Apply sufficient product to wet the surface without producing puddles. Use a clean, soft bristle push broom or microfiber pad to spread the product evenly and ensure uniform wetting. Avoid spreading once drying begins. Scrubbing is not necessary.
 4. If surfaces dry immediately, increase the rate of application. Surface should remain wet for 5–10 minutes. Adjust rate of application to eliminate puddles. Allowing excess material to puddle on the floor will extend dry times and create white residues which must be removed immediately.
 5. Allow treated surfaces to dry.
 6. Remove any dried powder residue using a stiff broom, power sweeper or auto-scrubbing machine.
- C. Cleanup: Before product dries, clean tools and equipment with fresh water. Immediately wash off over spray from glass, aluminum, polished or other surfaces with fresh water.

3.2 APPLICATION OF SEALER

- A. Concrete substrate shall be completely dry.
- B. Apply sealer according to manufacturer's written instructions at a rate of 300 to 500 square feet per gallon per coat. Two coats are required.
- C. Maintain a wet edge at all times.
- D. Allow sealer to completely dry before applying additional coats.
- E. Apply second coat of sealer at 90 degrees to the direction of the first coat using the same application method and rates.
- F. Seal horizontal joints in areas subject to pedestrian or vehicular traffic.

3.3 CLEANING

- A. Immediately clean water repellent from adjoining surfaces and surfaces soiled or damaged by water-repellent application as work progresses. Repair damage caused by water-repellent application. Comply with manufacturer's written cleaning instructions.

END OF SECTION 071910

SECTION 071920 - CONCRETE MOISTURE AND ALKALINITY BARRIER

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General, Supplemental, and Special Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes:
 - 1. Concrete moisture and alkalinity barrier when moisture or alkalinity test fails.
- B. Related Sections include the following:
 - 1. Division 7 Section "Concrete Moisture and Alkalinity Testing" for independent moisture and alkalinity testing prior to installation of flooring materials.

1.3 SUBMITTALS

- A. Product Data: For each type of product indicated.
 - 1. Include manufacturer's printed statement of VOC content.
- B. Samples: For each type of barrier and substrate indicated, 12 by 12 inches in size, with specified water-repellent treatment applied to half of each Sample.
- C. Manufacturer Certificates: Signed by manufacturers certifying that barrier comply with requirements.
- D. Qualification Data: For Installer.
- E. Product Test Reports: Independent third party testing results:
 - 1. ASTM E 96 Water Vapor Transmission: up to 95% Vapor Reduction.
 - 2. ASTM D 4541 Concrete Adhesion: 500psi or concrete cohesive failure.
 - 3. ASTM D 1308 Chemical Resistance: 100% resistant to acid and alkali.
- F. Field Quality Control Documents: Post installation testing by independent testing agency per ASTM F1869, ASTM D 4541.

1.4 QUALITY ASSURANCE

- A. Installer Qualifications: An employer of workers trained and approved by manufacturer.
- B. Preinstallation Conference: Conduct conference at Project site.

1.5 WARRANTY

- A. Extended Warranty Period: Barrier warranty for 15 years covering performance, concrete adhesion, moisture or alkalinity damage to barrier and installed floor coverings. In the event of barrier failure, manufacturer shall cover labor and material cost to replace moisture or alkalinity

damaged flooring or coatings, reapply barrier, adhesives, patching compounds and installation accessories.

1. Moisture Vapor Reduction: No upper performance limitations.
 2. Alkalinity Control: No upper performance limitations.
 3. Manufacturing defects warranties are not acceptable.
- B. Warranty shall not exclude ACI documents, dew point, concrete salts, admixtures, resin and silicate surfaces treatments. Installations on slab surfaces deems acceptance of on site conditions. Barrier manufacturer is responsible for complete review of concrete mix designs, admixtures, sub slab vapor barrier installed and curing methods for written acceptance prior to installations.
- C. Installer: Submit 15 year warranty covering installation defects and improper installations on workmanship.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Concrete Moisture and Alkalinity Barrier: Subject to compliance with requirements, provide either the named product or an equal product by one of the other manufacturers specified.
1. VAP-1 2000 FS by Koster. (Basis of Design)
 2. Vapor-Guard DC by Advance Moisture Control.
 3. MES 100 by Floor Seal Technology Inc.
 4. Or equal.

2.2 CONCRETE MOISTURE AND ALKALINITY BARRIER

- A. Product: VAP I 2000 FS by Koster or equal.
1. Fast-setting, one-coat, membrane-forming, moisture vapor control system consisting of a unique combination of epoxy resins and other compounds formulated to prevent floor covering failures on concrete slabs with elevated levels of moisture.
 2. Meets or exceeds the performance requirements in ASTM F3010-13 Standard Practice for Two-Component Resin Based Membrane-Forming Moisture Mitigation Systems for Use Under Resilient Floor Coverings.
 3. Has no upper limit for water vapor emission from concrete floor slabs. It can be applied to concrete slabs with relative humidity up to 100% RH and it provides protection from sustained exposure to pH 14.
 4. Low permeance of 0.047 perms, moisture blocker for virtually all types of flooring, including low permeance flooring such as sheet goods and rubber tile.
 5. Compliant with all state and federal VOC regulations, having VOC content of 0 g/L, which allows installation in sensitive areas such as hospitals, schools, and grocery stores.
 6. Meets LEED Indoor Environmental Quality Credits for EQ 4.2 (Low-Emitting Materials, Paints and Coatings).
- B. Concrete Topcoat: Cement based self-leveling underlayment product acceptable to sealant manufacturer.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Clean substrate of substances that might interfere with penetration or performance of water repellents. Test for moisture content, according to barrier manufacturer's written instructions, to ensure that surface is dry enough.
 - 1. Shot blast surface to allow maximum penetration and adhesion. Grind near walls and edges.
- B. Protect adjoining work, including sealant bond surfaces, from spillage or blow-over of water repellent. Cover adjoining and nearby surfaces of aluminum and glass if there is the possibility of water repellent being deposited on surfaces. Cover live plants and grass.
- C. Coordination with Sealants: Do not apply barrier until sealants for joints adjacent to surfaces receiving water-repellent treatment have been installed and cured.
 - 1. Barrier work may precede sealant application only if sealant adhesion and compatibility have been tested and verified using substrate, water repellent, and sealant materials identical to those used in the work.
- D. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 APPLICATION

- A. Barrier: Apply by squeegee and roller application methods to saturate entire surface. Spread rates shall produce results of up to 95% moisture reduction per ASTM E 96 and post installation testing rate specified.
- B. Roller and squeegee methods to saturate concrete porosity. Final surfaces shall be light reflective white.
- C. Joint and Crack Treatment: Apply barrier directly over cracks, holes, and slab imperfections for maximum flexibility, moisture vapor and alkalinity control.
- D. Cement Topcoat: As required for applications under resilient flooring for sealants installed after curing of concrete.

3.3 FIELD QUALITY CONTROL

- A. Site Tests:
 - 1. Conduct moisture-alkalinity test by an independent testing company prior to resilient flooring and carpet installation.

3.4 CLEANING

- A. Immediately clean barrier from adjoining surfaces and surfaces soiled or damaged by barrier application as work progresses. Repair damage caused by barrier application. Comply with manufacturer's written cleaning instructions.

END OF SECTION 071920

SECTION 072100 - BUILDING INSULATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Concealed thermal and sound insulation.

1.3 DEFINITIONS

- A. Mineral-Fiber Insulation: Insulation composed of rock-wool fibers, slag-wool fibers, or glass fibers; produced in boards and blanket with latter formed into batts (flat-cut lengths) or rolls.

1.4 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency for insulation products.

1.5 QUALITY ASSURANCE

- A. Source Limitations: Obtain each type of building insulation through one source from a single manufacturer.
- B. Fire-Test-Response Characteristics: Provide insulation and related materials with the fire-test-response characteristics indicated, as determined by testing identical products per test method indicated below by UL or another testing and inspecting agency acceptable to authorities having jurisdiction. Identify materials with appropriate markings of applicable testing and inspecting agency.
 - 1. Surface-Burning Characteristics: ASTM E 84.
 - 2. Fire-Resistance Ratings: ASTM E 119.
 - 3. Combustion Characteristics: ASTM E 136.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Protect insulation materials from physical damage and from deterioration by moisture, soiling, and other sources. Store inside and in a dry location. Comply with manufacturer's written instructions for handling, storing, and protecting during installation.

1.7 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of building insulation that fails in materials or workmanship within specified warranty period.
 - 1. Warranty Period: 2 years.
- B. Installer's Warranty: 1 year.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Glass-Fiber Batt/Blanket Thermal and Sound Insulation: Subject to compliance with requirements, provide either the named product or an equal product by one of the other manufacturers specified.
 - 1. Johns Manville (JM). (Basis of Design)
 - 2. CertainTeed Corporation.
 - 3. Guardian Fiberglass, Inc.
 - 4. EcoBatt with ECOSE technology by Knauf Fiber Glass.
 - 5. Owens Corning.
 - 6. Lamtec.
 - 7. Or equal.
- B. Semi-Rigid Boards, Type II: Subject to compliance with requirements, provide either the named product or an equal product by one of the other manufacturers specified.
 - 1. Insul-Shield, Black Mat Boards, by Johns Manville or equal.
- C. Insulation Fasteners: Subject to compliance with requirements, provide products by one of the following manufacturers.
 - 1. AGM Industries, Inc.
 - 2. Eckel Industries of Canada.
 - 3. Gemco.
 - 4. Or equal.

2.2 GLASS-FIBER BATT/BLANKET INSULATION

- A. Unfaced, Glass-Fiber Batt/Blanket Insulation: ASTM C 665, Type I (blankets without membrane facing); consisting of fibers; with maximum flame-spread and smoke-developed indexes of 25 and 50, respectively; passing ASTM E 136 for combustion characteristics. Glass-fiber bonded with acrylic thermosetting binder.

1. For walls and partitions: Unfaced Batts.
 2. Formaldehyde-free, Unfaced Batts by JM or equal.
- B. Faced, Glass-Fiber Batt/Blanket Insulation: ASTM C 665, Type III (blankets with reflective membrane facing), Class A (membrane-faced surface with maximum flame-spread and smoke-developed indexes of 25 and 50, respectively); Category 1 (membrane is a vapor barrier), faced with foil-scrim-kraft vapor-retarder membrane on 1 face.
1. For ceilings under decks: FSK-25 Faced Batts with 2 inch tabs or Panel Deck FSK-25 Faced Batts with 5 inch tabs.
 2. Formaldehyde-free, FSK-25 Faced Batts by JM or equal.
- C. Thermal Rating: R values as indicated on Drawings.
- D. Sound Attenuation Ratings: Minimum R-11 on interior walls and partitions, unless otherwise indicated on Drawings.

2.3 RIGID INSULATION

- A. Extruded Polystyrene Foam: ASTM C 578, of type and density indicated below, with maximum flame-spread and smoke-developed indexes of 75 and 450, respectively.
1. 23-7/8" x 8', 2", R-10.

2.4 INSULATION FASTENERS

- A. Adhesively Attached, Spindle-Type Anchors: Plate welded to projecting spindle; capable of holding insulation of thickness indicated securely in position indicated with self-locking washer in place; and complying with the following requirements:
1. Series T TACTOO Insul-Hangers by AGM Industries, Inc.
 2. Stic-Klip Type N Fasteners by Eckel Industries of Canada.
 3. Spindle Type by Gemco.
 4. Or equal.
- B. Insulation-Retaining Washers: Self-locking washers formed from 0.016-inch-thick galvanized steel sheet, with beveled edge for increased stiffness, sized as required to hold insulation securely in place, but not less than 1-1/2 inches square or in diameter.
1. RC150 by AGM Industries, Inc.
 2. SC150 by AGM Industries, Inc.
 3. Dome-Cap by Gemco.
 4. R-150 by Gemco.
 5. S-150 by Gemco.
 6. Or equal.
- C. Anchor Adhesive: Product with demonstrated capability to bond insulation anchors securely to substrates indicated without damaging insulation, fasteners, and substrates.
1. TACTOO Adhesive by AGM Industries, Inc.
 2. Stic-Klip Type S Adhesive by Eckel Industries of Canada.
 3. Tuff Bond Hanger Adhesive by Gemco.
 4. Or equal.

2.5 ACCESSORIES

- A. Tape: Bright aluminum self-adhering type, mesh reinforced, 2 inches wide.
- B. Nails or Staples: Steel wire; electroplated, or galvanized; type and size to suit application.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions, with Installer present, for compliance with requirements of Sections in which substrates and related work are specified and for other conditions affecting performance.
 - 1. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Clean substrates of substances harmful to insulation or vapor retarders, including removing projections capable of puncturing vapor retarders or of interfering with insulation attachment.

3.3 INSTALLATION, GENERAL

- A. Comply with insulation manufacturer's written instructions applicable to products and application indicated.
- B. Install insulation that is undamaged, dry, and unsoiled and that has not been left exposed at any time to ice, rain, and snow.
- C. Extend insulation in thickness indicated to envelop entire area to be insulated. Cut and fit tightly around obstructions and fill voids with insulation. Remove projections that interfere with placement.
- D. Water-Piping Coordination: If water piping is located within insulated exterior walls, coordinate location of piping to ensure that it is placed on warm side of insulation and insulation encapsulates piping.
- E. For preformed insulating units, provide sizes to fit applications indicated and selected from manufacturer's standard thicknesses, widths, and lengths. Apply single layer of insulation units to produce thickness indicated unless multiple layers are otherwise shown or required to make up total thickness.

3.4 INSTALLATION OF GENERAL BUILDING INSULATION

- A. Apply insulation units to substrates by method indicated, complying with manufacturer's written instructions. If no specific method is indicated, bond units to substrate with adhesive or use mechanical anchorage to provide permanent placement and support of units.

- B. Seal joints between foam-plastic insulation units by applying adhesive, mastic, or sealant to edges of each unit to form a tight seal as units are shoved into place. Fill voids in completed installation with adhesive, mastic, or sealant as recommended by insulation manufacturer.
- C. Install insulation in cavities formed by framing members according to the following requirements:
 - 1. Use insulation widths and lengths that fill the cavities formed by framing members. If more than one length is required to fill cavity, provide lengths that will produce a snug fit between ends.
 - 2. Place insulation in cavities formed by framing members to produce a friction fit between edges of insulation and adjoining framing members.
 - 3. Maintain 3-inch clearance of insulation around recessed lighting fixtures.
 - 4. Install eave ventilation troughs between roof framing members in insulated attic spaces at vented eaves.
 - 5. For metal-framed wall cavities where cavity heights exceed 96 inches, support unfaced blankets mechanically.
- D. Stuff glass-fiber loose-fill insulation into miscellaneous voids and cavity spaces for sound deadening, sound absorption, thermal protection, or air-infiltration reduction. Compact to approximately 40 percent of normal maximum volume equaling a density of approximately 2.5 lb/cu. ft.

3.5 INSTALLATION OF INSULATION IN CEILINGS

- A. Install insulation to achieve thermal indicated attached to roof or floor deck from below.
- B. Install insulation to roof or floor deck by adhesively attached, spindle-type insulation anchors as follows:
 - 1. Fasten insulation anchors to deck substrates with insulation anchor adhesive according to anchor manufacturer's written instructions. Space anchors according to insulation manufacturer's written instructions for insulation type, thickness, and application indicated.
 - 2. After adhesive has dried, install insulation by pressing insulation into position over spindles and securing it tightly in place with insulation-retaining washers, taking care not to compress insulation below required thickness.
 - 3. Where insulation will not be covered by other building materials, apply capped washers to tips of spindles.

3.6 PROTECTION

- A. Protect installed insulation from damage due to harmful weather exposures, physical abuse, and other causes. Provide temporary coverings or enclosures where insulation is subject to abuse and cannot be concealed and protected by permanent construction immediately after installation.

END OF SECTION 072100

SELF-ADHERED THERMOPLASTIC
POLYVINYL CHLORIDE (PVC) MEMBRANE ROOFING
SECTION 07 54 19.11

PART 1 - GENERAL CONDITIONS

1.01 DESCRIPTION

A. Scope

To install a complete Sarnafil self-adhered system including membrane, flashings, and other components.

Assembly Over Plywood Substrate

- Plywood Deck.
- ½ inch DensDeck Prime mechanically attached to plywood deck with #12 fasteners and 3-inch square board plates.
- G410 SA (self-adhered) PVC membrane system installed over DensDeck Prime.
- 20-year System Warranty to be provided upon completion.

B. Related Work

The work includes but is not limited to the installation of:

1. Substrate preparation
2. Roof drains
3. DensDeck Prime roof board
4. Separation/Drainage layers
5. Roof membrane
6. Fasteners
7. Adhesives
8. Roof membrane flashings
9. Walkways
10. Metal Flashings
11. Sealants

C. Upon successful completion of work the following warranties may be obtained:

1. Roofing Manufacturer 20-year System Warranty
2. Roofing Applicator Warranty

1.02 QUALITY ASSURANCE

- A. This roofing system shall be applied only by a roofing applicator authorized prior to bid by Sika Sarnafil. Installer must be approved for a minimum of 2 years prior to bid date.
- B. A Manufacturer Technical Service Representative will review the installed roof system for the System Warranty to be issued.
- C. All work pertaining to the installation of membrane, flashings, and accessories shall only be completed by Applicator authorized by Sika Sarnafil in those procedures.
- D. Roofing membrane manufacturer must have a demonstrated performance history of producing PVC roof membranes no less, in duration of years, than the warranty duration specified.
- E. Membrane must be a MINIMUM of 60 mils thick, exclusive of any felt or fleece backing. ASTM nominal (+/-) 10% mil thickness tolerance is not accepted.
- F. Membrane must have at least 27 mils of waterproofing polymer thickness over scrim reinforcement as documented on the manufacturer's published product data sheet.

- G. Membrane Manufacturer must submit evidence of 10 existing buildings within a 200-mile radius of the project location that have been performing for a minimum of 20 years.
- H. Roofing membrane and membrane flashings to be manufactured by membrane supplier and not private labeled.
- I. TPO membranes are not accepted.
- J. Manufacturer to have a minimum ten years of experience recycling their membranes at the end of their service life back into new membrane products. Provide a minimum of five reference projects completed with new membrane produced from recycled membrane.
- K. Membranes that require or suggest the use of cut-edge sealant are not accepted.
- L. Applicable code/insurance requirements shall be identified by the Owner or Owner's representative.

1.03 SUBMITTALS

- A. At the time of bidding, the Applicator shall submit to the Owner (or Representative) the following:
 - 1. Written documentation that items are met as set forth in Quality Assurance 1.02 A through L.
 - 2. Copies of Specification.
 - 3. Samples of each primary components to be used in the roof system and the manufacturer's current product data sheet for each component.
 - 4. Written approval by the insulation manufacturer (as applicable) for use of the product in the proposed system.
 - 5. Sample copy of Manufacturer's warranty.
 - 6. Sample copy of Applicator's warranty.
 - 7. Safety Data Sheets (SDS)

1.04 CODE REQUIREMENTS

The Applicator shall submit evidence that the proposed roof system meets the requirements of the local building code and has been tested and approved or listed by an approved, codified testing organization. These requirements are minimum standards, and no roofing work shall commence without written documentation of the system's compliance.

- A. Fire Design:
Underwriters Laboratories, Inc. - Class A Assembly
- B. Wind Design:
60 mph maximum wind speed

1.05 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. All products delivered to the job site shall be in the original unopened containers or wrappings bearing all seals and approvals.
- B. Handle all materials to prevent damage. Place all materials on pallets and fully protect from moisture.
- C. Membrane rolls shall be stored lying down on pallets and fully protected from the weather with clean tarpaulins. Unvented tarpaulins are not accepted due to the potential accumulation of moisture beneath the tarpaulin which may affect the membrane weldability.

- D. All adhesives shall be stored at temperatures between 40°F and 80°F. Read product data sheets and instructions contained on adhesive canisters for specific storage instructions.
- E. All flammable materials shall be stored in a cool, dry area away from sparks and open flames. Follow precautions outlined on containers and read product Safety Data Sheets (SDS).
- F. Safety Data Sheets (SDS) shall be available at the job site at all times.

1.06 JOB CONDITIONS

- A. Only as much of the new roofing as can be made weathertight each day, including all flashing and detail work, shall be installed. All seams shall be heat welded before leaving the job site that day.
- B. Temporary overnight tie-ins shall be installed at the end of each day's work and shall be completely removed (including any contaminated materials) before proceeding with the next day's work.
- C. The Applicator is cautioned that certain roofing membranes are incompatible with asphalt, coal tar, heavy oils, roofing cements, creosote and some preservative materials. Such materials shall not remain in contact with these membranes.
- D. The Applicator shall follow all safety regulations as required by OSHA and any other applicable authority having jurisdiction. Roof and walkways may be slippery when icy or wet. Working on surfaces under these conditions is hazardous. Appropriate safety measures must be implemented prior to working on such surfaces. Always follow OSHA and other relevant fall protection standards when working on roofs.
- E. Where applicable, the Applicator shall arrange for pullout tests in accordance with the latest versions of the SPRI/ANSI Standard Field Test Procedures FX-1 and IA-1 for fasteners and adhesives, respectively, to verify condition of the deck/substrate and to confirm expected pullout values.
- F. The Sarnafil membrane shall not be installed under the following conditions without consulting Sika Corporation's Technical Dept. for precautionary steps:
 - 1. The roof assembly permits interior air to pressurize the membrane underside.
 - 2. Any exterior wall has 10% or more of the surface area comprised of opening doors or windows.
 - 3. The wall/deck intersection permits air entry into the wall flashing area.
- G. Special consideration should be given to construction related moisture. Sika Corporation is not responsible for damage when exposed to construction related moisture.

1.07 BIDDING REQUIREMENTS

- A. Pre-Bid Meeting:
A pre-bid meeting shall be held with the Owner's Representative, Building Envelope Consultant, Manufacturer's Representative and involved trades to discuss all aspects of the project. The Applicator's field representative or roofing foreman for the work shall be in attendance.

1.08 WARRANTIES

- A. Manufacturer 20-year System Warranty
Upon successful completion of the work to Sika Sarnafil's satisfaction and receipt of final payment, the Sika Corporation Warranty shall be issued. Manufacturer warrants to the Owner the specified warranty for the specified warranty period provided roofing is installed according to Manufacturer's Technical instructions by an Authorized Roofing Applicator. The warranty shall not have a penal sum limitation, shall be non-prorated and shall not exclude coverage due to ponding water. Any items not purchased directly from Manufacturer are not included in the System Warranty.

- B. Contractor 2-year Warranty
Signed by installing applicator, covering the work of a System Warranty, including all components of roofing system installation such as membrane roofing, base flashing, roof insulation, cover boards, adhesives, fasteners, and walkway products.

PART 2 - PRODUCTS

2.01 GENERAL

- A. Components of the roof system shall be products of Sika Sarnafil as indicated on the Detail Drawings and specified in the Contract Documents.
- B. Components that are other than those supplied or manufactured by Sika Corporation may be submitted for review and acceptance by Sika Corporation. Sika Corporation's acceptance of any other product is only for a determination of compatibility with Sika Corporation products and not for inclusion in the Sika Corporation warranty. The specifications, installation instructions, limitations, and restrictions of the respective manufacturers must be reviewed by the Owner's Representative for acceptability for the intended use with Sika Corporation products.
- C. Consult respective product data sheets and selection guides for additional information.

2.02 MEMBRANE

- A. Membrane shall conform to:
 - 1. ASTM D-4434 (latest version), "Standard for Polyvinyl Chloride Sheet Roofing". Classification: Type II for adhered feltback roofing system and vertical membrane flashings.
 - 2. NSF/ANSI Standard 347, "Sustainability Assessment for Single Ply Roofing Membranes". Certification Level: Platinum.
 - 3. The manufacturer to guarantee that the membrane thickness meets or exceeds the specified thickness when tested according to ASTM D-751.
- B. Approved Membrane Manufacturers:
 - 1. Basis of Design: Sika Sarnafil, G410-SA: 15616 Euclid Avenue, Chino, CA 91710, Ph. (714) 837-8299.
 - 2. Seamen Corporation – FiberTite-Xtreme 80 mil FB: 1000 Venture Blvd, Wooster, OH 44691, Ph. (330) 262-1111.
 - 3. Tremco Roofing – Tri-Polymer Alloy 80 mil FB: 3735 Green Road, Beachwood, OH 44122, Ph. (216) 292-5000.
 - 4. Other Accepted Alternates: None
- C. PVC Sheet
 - 1. Type of Membrane
 - a) G410-60 SA.
 - 2. Membrane Sheet Minimum Thickness
 - a) 60 mil, MINIMUM. Thickness is EXCLUSIVE of felt or fleece backing. ASTM nominal (+/-) 10% of actual thickness is not accepted.
 - 3. Membrane Thickness Over Scrim Reinforcement
 - a) 27 mil, membrane must have at least 27 mils of waterproofing polymer thickness over scrim reinforcement as documented on the manufacturer's published product data sheet.
- D. Color of Membrane

1. EnergySmart White.

2.03 INSULATIONS / ROOF BOARDS

A. Roof Boards

1. DensDeck® Prime Roof Board
ASTM C1177 with moisture and mold resistant core utilizing EONIC™ Technology. Provide as indicated, as required for uniform surface for membrane adherence, and as required for fire and wind ratings. Gypsum roof board with fiberglass mat facers primed on one side, meeting ASTM C-1177.
 - a. Water Absorption (ASTM C473): Less than 5% of weight.
 - b. Surface Water Absorption (ASTM C473): Nominal 1.0 grams.
 - c. Weight: 2.0 lb/sq. ft.
 - d. Surfacing: Primed Fiberglass Mat.
 - e. Thickness: 1/2 inch.

2.04 ATTACHMENT COMPONENTS

A. Insulation / Roof Board Attachment

1. Sarnaplate
26-gauge, 3-inch square steel plate with a Galvalume coating, used with #12 Sarnafasteners to attach DensDeck Prime roof boards, or other Sika approved boards to the roof deck.
2. Sarnafastener #12
#12 corrosion-resistant fastener used with Sarnaplates to attach DensDeck Prime roof boards, or other Sika approved boards to the roof deck.

2.05 FLASHING MATERIALS

A. Wall / Curb Flashing

1. G410/G459 PVC Flashing Membrane: 60 mil fiberglass reinforced membrane adhered to approved substrate using Stabond adhesive.
2. G410 SA PVC Flashing Membrane: Fiberglass reinforced PVC membrane self-adhered to approved substrate.
3. Detail PVC Membrane: 60 mil fiberglass reinforced pliable PVC membrane for flashing pipes, corners, and penetrations.
4. Sarnaclad: PVC-coated, heat-weldable sheet metal capable of being formed into a variety of shapes and profiles. PVC clad is a 24 gauge, G90 galvanized metal sheet with a 20-mil unsupported PVC membrane laminated on one side. The dimensions of PVC clad are 4 ft. x 10 ft. in white.
5. Stabond Adhesive
Solvent-based, VOC compliant, reactivating adhesive used to attach membrane to flashing substrate.

B. Miscellaneous Flashing

1. Sarnacircles:
60 mil thick prefabricated 4-1/2 in. round circle patch injection molded.
2. Sarnacorners
60 mil thick prefabricated inside and outside corners injection molded.

3. Sarnastack Universal
Injection molded stack/pipe boot to flash pipes, vent stacks and cylindrical penetrations.
4. Sarnastack Split
Prefabricated stack/pipe boot open along one side to flash pipes, vent stacks and cylindrical penetrations when access is obstructed.
5. Sarnareglet
Extruded aluminum flashing termination reglet used at walls and large curbs for exposed applications. Use prefabricated Sarnareglet mitered inside and outside corners where walls intersect.
6. Liquid Flashing Primer
Two-component polymethyl methacrylate-based (PMMA) primer used to promote the adhesion of Liquid Flashing SW and Liquid Flashing WW over wood and concrete surfaces.
7. Liquid Flashing Fleece
Non-woven, needle-punched polyester fleece used as the reinforcement for Sika's liquid flashing details.
8. Liquid Flashing Catalyst
Reactive agent based on dibenzoyl peroxide to induce curing of Sika's Liquid Flashing SW, and Liquid Flashing Primer when mixed.
9. Liquid Flashing SW (summer-grade white)
Two-component polymethyl methacrylate-based (PMMA). The ambient temperature at application must be between 59°F and 104°F. The surface temperature at application must be between 59°F and 122°F.

2.06 WALKWAY PROTECTION

- A. PVC Treaded Walkway
Polyester reinforced, weldable membrane with surface embossment. Used as a protection layer from rooftop traffic.

2.07 MISCELLANEOUS ACCESSORIES

- A. Aluminum Tape
2-inch-wide pressure-sensitive aluminum tape used as a separation layer between small areas of asphalt contamination and the membrane and as a bond-breaker under the coverstrip at Sarnaclad joints.
- B. SikaLastomer-65
Tape used to seal membrane at penetrations and securements, metals, or Vapor Retarder PE 10.
- C. Seam Cleaner
Used to clean adhesive out of seams. It is not to be used as a general membrane cleaner. It is also used to clean metal and reactivate existing Liquid Flashing prior to the application of new Liquid Flashing.
- D. Sarnastop
1-inch wide extruded aluminum, low profile bar used with certain Sarnafasteners to secure membrane to the roof deck or to walls/curbs at terminations, penetrations and at angle changes of the substrate.

2.08 SEALANTS

- A. Sikaflex-1a

Moisture-cured, one-component polyurethane-based, non-sag elastomeric sealant used in wall, curb and drain terminations. It is also used as a sealant at pipe penetrations and under certain metal flashings. Sikaflex-1a can be used as a pourable sealer pocket filler.

2.09 MISCELLANEOUS FASTENERS AND ANCHORS

All fasteners, anchors, nails, straps, bars, etc. shall be post-galvanized steel, aluminum or stainless steel. Mixed metal type components shall be assembled in such a manner as to avoid galvanic corrosion. Fasteners for attachment of metal to masonry shall be expansion type fasteners with stainless steel pins.

PART 3 - EXECUTION

3.01 PRE-CONSTRUCTION CONFERENCE

The Applicator, Owner's Representative/Designer and Manufacturer(s) shall attend a pre-construction conference.

3.02 SUBSTRATE CONDITION

- A. Applicator shall be responsible for acceptance or provision of proper substrate to receive new roofing materials.
- B. Applicator shall verify that the work done under related sections meets the following conditions:
 - 1. Roof drains and scuppers have been reconditioned or replaced (as applicable) and installed properly.
 - 2. Roof curbs, nailers, equipment supports, vents and other roof penetrations are properly secured and prepared to receive new roofing materials.
- C. The substrate shall be clean, smooth, dry, free of water, ice and snow and free of flaws, sharp edges, loose and foreign material, oil, grease and other contaminants. Roofing shall not start until all defects have been corrected.

3.03 SUBSTRATE PREPARATION

The roof deck and existing roof construction must be structurally sound to provide support for the new roof system. The Owner's Representative shall ensure that the roof deck is secured to the structural framing according to local building code or insurance requirements and in such a manner as to resist all anticipated loads in that location.

- A. Reroofing with Removal of Existing Roofing System
 - 1. Wood Deck

All rotted or deteriorated wood shall be removed and replaced. The deck thickness shall be 1-1/2 inch lumber or 15/32 inch plywood or match existing deck if greater. Deck type and attachment shall conform to local code requirements. Fastener heads shall be recessed into the wood surface.

3.04 INSULATION / ROOF BOARD INSTALLATION

General Criteria:

- 1. Boards shall be installed according to local building code, insurance requirements, and manufacturer's instructions.
- 2. Boards shall be neatly cut to fit around penetrations and projections.
- 3. Install tapered insulation in accordance with insulation manufacturer's shop drawings.

4. Do not install more board than can be covered with membrane by the end of the day or the onset of inclement weather.
 5. When two or more layers of insulation and/or roof boards are used, stagger joints at least 12 inches in both directions between layers.
 6. Refer to individual Product Data Sheets (PDS) and *Insulation or Roof Board Installation* section of Sika Sarnafil Roofing Applicator Handbook for detailed installation instructions.
- A. Mechanical Attachment:
Boards shall be mechanically fastened to the deck with approved fasteners and plates according to the wind uplift rating requirements and associated fastening patterns.

3.05 MEMBRANE INSTALLATION

The surface of the insulation, roof board, or substrate shall be inspected prior to installation of the Sarnafil roof membrane. The substrate shall be clean, dry, and free from debris and smooth with no surface roughness or contamination. Broken, delaminated, wet or damaged boards shall be removed and replaced. Tack welding of Sarnafil membrane field sheets for purposes of temporary restraint during installation is not permitted.

- A. Sarnafil G410 Self-Adhered Membrane:
1. The surface of the substrate shall be inspected prior to installation of the Sarnafil membrane. The substrate shall be clean, dry, free from debris and smooth with no surface roughness or contamination. Broken, delaminated, wet or damaged insulation boards shall be removed and replaced.
 2. The membrane is installed after proper preparation of substrate. Peel back release liner and press onto substrate. Roll membrane immediately afterwards with a steel membrane roller.
 3. Refer to individual Product Data Sheets (PDS) and *Adhered Systems: Self Adhered Membrane* section of Sika Sarnafil Roofing Applicator Handbook for detailed installation instructions .

3.06 HOT-AIR WELDING OF MEMBRANE OVERLAPS

- A. All membrane overlaps shall be hot-air welded. The membrane shall be clean and dry prior to hot-air welding.
- B. Field membrane overlaps for automatic machine-welding shall be 3 inches in width. A minimum of 4-inch-wide overlap is required when hand-welding details.
- C. 1-inch-wide cross-section samples of welded seams shall be taken at least two times a day, once in the morning and once in the afternoon.
- D. Refer to *Welding* section of Sika Sarnafil Roofing Applicator Handbook for detailed installation instructions.

3.07 MEMBRANE FLASHING INSTALLATION

All flashings shall be installed concurrently with the roof membrane as the job progresses. No temporary flashings shall be allowed without the prior written approval of the Owner's Representative and Sika Corporation. Approval shall only be for specific locations on specific dates. If any water is allowed to enter under the newly completed roofing, the affected area shall be removed and replaced at the Applicator's expense. Flashing shall be adhered to compatible, dry, and smooth surfaces free of dirt, dust, and debris. Use caution to ensure adhesive fumes are not drawn into the building.

- A. All flashings should extend a minimum of 8 inches above finished roofing level. Submit requests for exceptions in writing to the Owner's Representative and Sika Corporation Technical Department for signed approval.
- B. No bitumen shall be in contact with any Sarnafil membranes except Sarnafil G 459.
- C. All flashing membranes shall be mechanically fastened along the counter-flashed top edge with Sarnastop or approved Sarnadisc at 6 - 12 inches on center.
- D. Sarnafil flashings shall be terminated according to Sika Corporation recommended details.
- E. All adhered flashings that exceed 45 inches in height shall receive additional securement, unless applying Sarnafil G410 SA membrane to plywood, DensDeck Prime, concrete block, or concrete with a CSP of 1 – 4 according to ICRI Technical Guideline No. 310.2R-2013.
- F. Refer to *Typical Flashing Procedures* section of Sika Sarnafil Roofing Applicator Handbook for detailed installation instructions.

3.08 LIQUID FLASHING INSTALLATION

- A. Application Guidelines
Precautions should be taken to prevent odors and/or vapors from entering the building/structure, including but not limited to turning off and sealing air intake vents and other means of ingress for odors and/or vapors into the building/structure during product application and cure. Refer to individual Product Data Sheets (PDS) and *Liquid Flashing Procedures* section of Sika Sarnafil Roofing Applicator Handbook for detailed installation instructions.
- B. Installation Notes
 1. Prepare the surface to be flashed by cleaning the area to like-new condition.
 2. Pre-cut vertical and horizontal liquid flashing fleece to fit around the penetration with 2" (51 mm) overlaps.
 3. Thoroughly mix the Liquid Flashing and the Liquid Flashing Catalyst with a slow speed mixer.
 4. Apply the catalyzed liquid flashing with a 55-mil base layer. Place the pre-cut fleece into the wet Liquid Flashing making sure to saturate the fleece. Apply a 25-mil finishing layer over the fleece.
- C. Inspection and Quality Control
Refer to Sika Sarnafil Technical Bulletin 19-02 for detailed inspection procedures.

3.09 SARNAFLAD METAL BASE FLASHINGS / EDGE METAL INSTALLATION

- A. All flashings shall be installed concurrently with the roof membrane as the job progresses. No temporary flashings shall be allowed without the prior written approval of the Owner's Representative and Sika Corporation. Approval shall only be for specific locations on specific dates. If any water is allowed to enter under the newly completed roofing due to incomplete flashings, the affected area shall be removed and replaced at the Applicator's expense.
- B. Metal details, fabrication practices and installation methods shall conform to the applicable requirements of the Sheet Metal and Air Conditioning Contractors National Association, Inc. (SMACNA) - latest issue.
- C. Pre-formed metal flashing shall be installed according to metal manufacturer's guidelines.
- D. Metal, other than that provided by Sika Corporation, is not covered under the Sika Corporation warranty.

- E. Sarnaclad and other metal flashings shall be formed and installed per the Detail Drawings. Refer to individual Product Data Sheets (PDS) and *Metal Flashings* section of Sika Sarnafil Roofing Applicator Handbook for detailed installation instructions.

3.10 WALKWAY INSTALLATION

- A. PVC Treaded Walkway
Probe all existing deck membrane seams which are to be covered by walkway. Install walkway in straight lines by either adhering and welding or just welding to the field membrane.

3.11 TEMPORARY CUT-OFF

- A. All flashings shall be installed concurrently with the roof membrane to maintain a watertight condition as the work progresses. All temporary cut-offs shall be constructed to provide a watertight seal. The new membrane shall be carried into the temporary cut-off. Temporary cut-off shall be sealed to the deck or substrate so that water will not be allowed to travel under the new or existing roofing. When work resumes, the contaminated membrane shall be cut out.
- B. If inclement weather occurs while a temporary cut-off is in place, the Applicator shall provide the labor necessary to monitor the situation to maintain a watertight condition.
- C. If any water is allowed to enter under the newly completed roofing, the affected area shall be removed and replaced at the Applicator's expense.
- D. Refer to *Overnight Tie-In* section of Sika Sarnafil Roofing Applicator Handbook for detailed instructions.

3.12 WATER TESTING OF DRAINS AND ELECTRONIC LEAK DETECTION TESTING

- A. The Applicator shall water test the drains for a minimum of 16 hours prior to the electronic leak detection (ELD) test. Plug the drain and flood with enough water to completely cover the clamping ring the day before the ELD test. The Sika Sarnafil Technical Service Representative attending the ELD test will inspect for leakage upon his arrival to the jobsite.
- B. Follow Sika Sarnafil procedures for electronic leak detection testing over the completed waterproofing membrane to check for membrane water tightness prior to the installation of subsequent layers.
- C. Should leaks be discovered, the Applicator shall locate leak source(s) and make repairs. Re-test to assure watertightness. All costs associated with the repairs shall be borne by the Applicator.

3.14 SEPARATION LAYER INSTALLATION

- A. Separation layer is installed above the membrane as additional protection as specified and according to the detail drawings lapping all edges a minimum of 4 inches (10.2 cm).
- B. Cut separation layer with scissors or utility blades. Do not use hot air welding equipment to cut the separation layer.

3.15 DRAINAGE COMPOSITE INSTALLATION

- A. Install drainage composite directly over the waterproofing membrane and/or protection layer. If protection layer is not specified, install drainage composite immediately after Sika Sarnafil's inspection and acceptance of the waterproofing installation.
- B. Neatly trim drainage composite to fit closely around penetrations and at the base of all drains to ensure that water will flow freely from composite into drain openings.

- C. All cut edges of the drainage composite shall be covered in order to protect the waterproofing membrane from damage.

3.16 XPS INSULATION AND SCRIM PROTECTION SHEET INSTALLATION

- A. Insulation shall be laid in parallel courses with end joints staggered and tightly butted.
- B. Insulation shall be neatly cut to fit around penetrations and projections.
- C. Do not install more insulation than can be covered by overburden by the end of the day.
- D. Install scrim protection sheet with proper overlaps according to manufacturer's instructions.
- E. During installation in hot, sunny weather, the Applicator shall protect the insulation with a white covering to prevent excessive heat build-up and potential warping of the insulation boards.

3.17 PAVER SYSTEM

- A. Prior to installation of the waterproofing system and pavers, inspect the deck for height and location of thresholds, stairs, and other major transition areas.
- B. Pavers on Pedestals:
 - 1. Install pavers according to the manufacturer's published instructions.
 - 2. Fit pavers neatly at the base of walls and projections.
 - 3. Shim or adjust pavers as required to provide a level surface with no more than 1/8 inch (3.2 mm) height differential.
 - 4. Pavers will be power washed or cleaned to remove any laitance, dirt, or other unacceptable surface irregularities.

3.18 MONITORING THE INSTALLATION OF FINISHING LAYERS AND OVERBURDEN

- A. The waterproofing Applicator shall monitor finishing layer installation and overburden operations to assure no damage is done to the waterproofing membrane. The type of overburden is to be approved by the designer and owner.
- B. Soil overburden materials shall be satisfactory material, free of all foreign matter, clay, rock, gravel larger than 1 inch (25.4 mm) in any dimension, debris, waste, frozen materials, and other deleterious matter.
- C. Overburden materials must be placed carefully and evenly adjacent to structures, piping or conduit to required elevations. Prevent wedging action of backfill against structures. Overburden is to be placed uniformly in lifts around the structure.
- D. No large rocks are to be allowed against the waterproofing system.
- E. If overburden material has stone sizes greater than 1 inch (25.4 mm), the use of Sarnatherm insulation and or other acceptable protective layers must be used to maximize the protection of the waterproofing system. The use of Sarnatherm does not eliminate the need for proper overburden material and backfill techniques.
- F. Alert all parties concerned of any activities that might adversely affect the long-term performance of the waterproofing.

3.19 COMPLETION

- A. Prior to demobilization from the site, the work shall be reviewed by the Owner's Representative and the Applicator. All defects noted and non-compliances with the Specifications or the recommendations of Sika Corporation shall be itemized in a punch list. These items must be corrected immediately by the Applicator to the satisfaction of the Owner's Representative and Sika Corporation prior to demobilization.
- B. All Warranties referenced in this Specification shall have been submitted and have been accepted by the owner or owner's representative at time of contract award.

3.20 DETAILS

- A. Refer to usa.sika.com/sarnafil.

DISCLAIMER

Prior to each use of any Sika product, the user must always read and follow the warnings and instructions on the product's most current Product Data Sheet, product label and Safety Data Sheet which are available online at usa.sika.com/sarnafil or by calling Sika's Technical Service Department at 800-451-2504. Nothing contained in any Sika materials relieves the user of the obligation to read and follow the warnings and instruction for each Sika product as set forth in the current Product Data Sheet, product label and Safety Data Sheet prior to product use.

With respect to any guide specifications prepared and provided by Sika, such guide specifications are generic and nature and are provided as a general guide for informational purposes only to architects or roof designers/specifiers. Sika guide specifications are not intended to replace sound engineering and architectural practices and should not be relied upon for that purpose. Sika assumes no liability with respect to the provision of this guide specification, the preparation of the guide specifications, the design of the roofing or waterproofing system, the preparation and approval of the details and shop drawings, or for determining their suitability for a particular project or application. The architect, consultant and/or engineer or design professional for a particular project bears the sole responsibility for the design of the roofing or waterproofing system, for the preparation of the specifications, the preparation and approval of the details and shop drawings, and for determining their suitability for a particular project or application.

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SECTION 076200 - SHEET METAL FLASHING AND TRIM

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Sheet metal flashing and trim not specifically specified in other sections.

1.3 PERFORMANCE REQUIREMENTS

- A. General: Sheet metal flashing and trim assemblies as indicated shall withstand wind loads, structural movement, thermally induced movement, and exposure to weather without failure due to defective manufacture, fabrication, installation, or other defects in construction. Completed sheet metal flashing and trim shall not rattle, leak, or loosen, and shall remain watertight.

1.4 SUBMITTALS

- A. Product Data: For each type of product indicated. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for each manufactured product and accessory.
- B. Shop Drawings: Show fabrication and installation layouts of sheet metal flashing and trim, including plans, elevations, expansion-joint locations, and keyed details. Distinguish between shop- and field-assembled work. Include the following:
 - 1. Identification of material, thickness, weight, and finish for each item and location in Project.
 - 2. Details for forming sheet metal flashing and trim, including profiles, shapes, seams, and dimensions.
 - 3. Details for joining, supporting, and securing sheet metal flashing and trim, including layout of fasteners, cleats, clips, and other attachments. Include pattern of seams.
 - 4. Details of termination points and assemblies, including fixed points.
 - 5. Details of expansion joints and expansion-joint covers, including showing direction of expansion and contraction.
 - 6. Details of edge conditions, including eaves, ridges, valleys, rakes, crickets, and counterflashings as applicable.
 - 7. Details of special conditions.
 - 8. Details of connections to adjoining work.

1.5 QUALITY ASSURANCE

- A. Fabricator Qualifications: Shop that employs skilled workers who custom fabricate sheet metal flashing and trim similar to that required for this Project and whose products have a record of successful in-service performance.
- B. Sheet Metal Flashing and Trim Standard: Comply with SMACNA's "Architectural Sheet Metal Manual" unless more stringent requirements are specified or shown on Drawings.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Do not store sheet metal flashing and trim materials in contact with other materials that might cause staining, denting, or other surface damage. Store sheet metal flashing and trim materials away from uncured concrete and masonry.
- B. Protect strippable protective covering on sheet metal flashing and trim from exposure to sunlight and high humidity, except to the extent necessary for the period of sheet metal flashing and trim installation.

1.7 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of sheet metal flashing and trim that fails in materials or workmanship within specified warranty period.
 - 1. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
 - 2. Warranty Period: 2 years.
- B. Installer's Warranty: 1 year.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Galvanized Sheet Metal Flashing and Trim:
 - 1. Fry Reglet Corporation.
 - 2. Hickman, W. P. Company.
 - 3. Hohmann & Barnard, Inc.; STF Sawtooth Flashing.
 - 4. Or equal.

2.2 SHEET METALS

- A. General: Protect mechanical and other finishes on exposed surfaces from damage by applying a strippable, temporary protective film before shipping.
- B. Steel Sheet: Materials are to be G-90 galvanized and field painted to match the existing as approved by Architect.

- C. Restricted flatness steel sheet, metallic coated by the hot-dip process and prepainted by the coil-coating process to comply with ASTM A 755.
 - 1. Zinc-Coated (Galvanized) Steel Sheet: ASTM A 653, G90 coating designation; structural quality.

2.3 ROOF DRAINAGE SHEET METAL FABRICATIONS

- A. Hanging Gutters: Fabricate to cross section indicated, complete with end pieces, outlet tubes, and other accessories as required. Fabricate in minimum 96-inch- long sections. Furnish flat-stock gutter spacers and gutter brackets fabricated from same metal as gutters, of size recommended by SMACNA but not less than twice the gutter thickness. Fabricate expansion joints, expansion-joint covers, gutter bead reinforcing bars, and gutter accessories from same metal as gutters.
 - 1. Gutter Material and Finish : Match existing as approved by Architect.
- B. Downspouts: Match existing as approved by Architect.

2.4 MISCELLANEOUS MATERIALS

- A. General: Provide materials and types of fasteners, solder, welding rods, protective coatings, separators, sealants, and other miscellaneous items as required for complete sheet metal flashing and trim installation and recommended by manufacturer of primary sheet metal or manufactured item unless otherwise indicated.
- B. Fasteners: Wood screws, annular threaded nails, self-tapping screws, self-locking rivets and bolts, and other suitable fasteners designed to withstand design loads and recommended by manufacturer of primary sheet metal or manufactured item.
 - 1. General: Blind fasteners or self-drilling screws, gasketed, with hex-washer head.
 - a. Exposed Fasteners: Heads matching color of sheet metal using plastic caps or factory-applied coating.
 - b. Blind Fasteners: High-strength aluminum or stainless-steel rivets suitable for metal being fastened.
 - c. Spikes and Ferrules: Same material as gutter; with spike with ferrule matching internal gutter width.
 - 2. Fasteners for Zinc-Coated (Galvanized) Steel Sheet: Hot-dip galvanized steel according to ASTM A 153 or ASTM F 2329 or Series 300 stainless steel.
- C. Solder:
 - 1. For Zinc-Coated (Galvanized) Steel: ASTM B 32, Grade Sn50, 50 percent tin and 50 percent lead or Grade Sn60, 60 percent tin and 40 percent lead.
- D. Sealant Tape: Pressure-sensitive, 100 percent solids, gray polyisobutylene compound sealant tape with release-paper backing. Provide permanently elastic, nonsag, nontoxic, nonstaining tape 1/2 inch wide and 1/8 inch thick.
- E. Elastomeric Sealant: ASTM C 920, elastomeric polyurethane polymer sealant; low modulus; of type, grade, class, and use classifications required to seal joints in sheet metal flashing and trim and remain watertight.

- F. Epoxy Seam Sealer: Two-part, noncorrosive, aluminum seam-cementing compound, recommended by aluminum manufacturer for exterior nonmoving joints, including riveted joints.
- G. Bituminous Coating: Cold-applied asphalt emulsion complying with ASTM D 1187.
- H. Asphalt Roofing Cement: ASTM D 4586, asbestos free, of consistency required for application.

2.5 FABRICATION, GENERAL

- A. General: Custom fabricate sheet metal flashing and trim to comply with recommendations in SMACNA's "Architectural Sheet Metal Manual" that apply to design, dimensions, geometry, metal thickness, and other characteristics of item indicated. Fabricate items at the shop to greatest extent possible.
 - 1. Fabricate sheet metal flashing and trim in thickness or weight needed to comply with performance requirements, but not less than that specified for each application and metal.
 - 2. Obtain field measurements for accurate fit before shop fabrication.
 - 3. Form sheet metal flashing and trim without excessive oil canning, buckling, and tool marks and true to line and levels indicated, with exposed edges folded back to form hems.
 - 4. Conceal fasteners and expansion provisions where possible. Exposed fasteners are not allowed on faces exposed to view.
- B. Fabrication Tolerances: Fabricate sheet metal flashing and trim that is capable of installation to tolerances specified in MCA's "Guide Specification for Residential Metal Roofing."
- C. Sealed Joints: Form nonexpansion but movable joints in metal to accommodate elastomeric sealant.
- D. Expansion Provisions: Where lapped expansion provisions cannot be used, form expansion joints of intermeshing hooked flanges, not less than 1 inch deep, filled with butyl sealant concealed within joints.
- E. Fabricate cleats and attachment devices from same material as accessory being anchored or from compatible, noncorrosive metal.
- F. Fabricate cleats and attachment devices of sizes as recommended by SMACNA's "Architectural Sheet Metal Manual" and by FMG Loss Prevention Data Sheet 1-49 for application, but not less than thickness of metal being secured.
- G. Seams: Fabricate nonmoving seams with flat-lock seams. Tin edges to be seamed, form seams, and solder.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, to verify actual locations, dimensions and other conditions affecting performance of the Work.
 - 1. Verify compliance with requirements for installation tolerances of substrates.

2. Verify that substrate is sound, dry, smooth, clean, sloped for drainage, and securely anchored.
- B. For the record, prepare written report, endorsed by Installer, listing conditions detrimental to performance of the Work.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION, GENERAL

- A. General: Anchor sheet metal flashing and trim and other components of the Work securely in place, with provisions for thermal and structural movement. Use fasteners, solder, welding rods, protective coatings, separators, sealants, and other miscellaneous items as required to complete sheet metal flashing and trim system.
 1. Install sheet metal flashing and trim true to line and levels indicated. Provide uniform, neat seams with minimum exposure of solder, welds, and sealant.
 2. Install sheet metal flashing and trim to fit substrates and to result in watertight performance. Verify shapes and dimensions of surfaces to be covered before fabricating sheet metal.
 3. Space cleats not more than 12 inches apart. Anchor each cleat with two fasteners. Bend tabs over fasteners.
 4. Install exposed sheet metal flashing and trim without excessive oil canning, buckling, and tool marks.
 5. Install sealant tape where indicated.
 6. Torch cutting of sheet metal flashing and trim is not permitted.
 7. Do not use graphite pencils to mark metal surfaces.
- B. Metal Protection: Where dissimilar metals will contact each other or corrosive substrates, protect against galvanic action by painting contact surfaces with bituminous coating or by other permanent separation as recommended by SMACNA.
 1. Underlayment: Where installing metal flashing directly on cementitious or wood substrates, install a course of felt underlayment and cover with a slip sheet or install a course of polyethylene sheet.
- C. Fastener Sizes: Use fasteners of sizes that will penetrate metal decking not less than recommended by fastener manufacturer to achieve maximum pull-out resistance.
- D. Seal joints as shown and as required for watertight construction.
 1. Where sealant-filled joints are used, embed hooked flanges of joint members not less than 1 inch into sealant. Form joints to completely conceal sealant. When ambient temperature at time of installation is moderate, between 40 and 70 deg F, set joint members for 50 percent movement each way. Adjust setting proportionately for installation at higher ambient temperatures. Do not install sealant-type joints at temperatures below 40 deg F.
 2. Prepare joints and apply sealants to comply with requirements in Division 7 Section "Joint Sealants."
- E. Soldered Joints: Clean surfaces to be soldered, removing oils and foreign matter. Pre-tin edges of sheets to be soldered to a width of 1-1/2 inches, except reduce pre-tinning where pre-tinned surface would show in completed Work.
 1. Do not use torches for soldering. Heat surfaces to receive solder and flow solder into joint. Fill joint completely. Completely remove flux and spatter from exposed surfaces.

OCFA Fire Station #4
Construction Documents

- F. Flashing corners shall be shop fabricated and fully soldered such that corner assemblies are single monolithic units for 18" in all directions from corners.

3.3 ERECTION TOLERANCES

- A. Installation Tolerances: Shim and align sheet metal flashing and trim within installed tolerances specified in MCA's "Guide Specification for Residential Metal Roofing."

3.4 CLEANING AND PROTECTION

- A. Clean exposed metal surfaces of substances that interfere with uniform oxidation and weathering.
- B. Clean and neutralize flux materials. Clean off excess solder.
- C. Clean off excess sealants.
- D. Remove temporary protective coverings and strippable films as sheet metal flashing and trim are installed unless otherwise indicated in manufacturer's written installation instructions. On completion of installation, remove unused materials and clean finished surfaces. Maintain in a clean condition during construction.
- E. Replace sheet metal flashing and trim that have been damaged or that have deteriorated beyond successful repair by finish touchup or similar minor repair procedures.

END OF SECTION 076200

SECTION 076500 - FLEXIBLE SHEET FLASHING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Flexible sheet flashing for windows, doors, parapets, and other openings and where indicated on Drawings.

1.3 SUBMITTALS

- A. Concurrent Review Requirements: Submit submittals of this section with doors and windows sections.
- B. Product Data: Include manufacturer's written instructions for evaluating, preparing, and treating substrate, technical data, and tested physical and performance properties of flexible sheet flashing.
- C. Shop Drawings: Show locations and extent of flexible sheet flashing. Include details for substrate joints and cracks, sheet flashings, penetrations, inside and outside corners, tie-ins with adjoining waterproofing, and other termination conditions.
- D. Samples: For the following products:
 - 1. 12-by-12-inch square of flexible sheet flashing.
- E. Installer Certificates: Signed by manufacturers certifying that installers comply with requirements.
- F. Qualification Data: For Installer.
- G. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, for flexible sheet flashing.

1.4 QUALITY ASSURANCE

- A. Installer Qualifications: A firm that is acceptable to flexible sheet flashing manufacturer for installation of flexible sheet flashing required for this Project.
- B. Source Limitations: Obtain flexible sheet flashing materials through one source from a single manufacturer.

- C. Mockups: Build mockups to verify selections made under sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.
 - 1. Build mockup with doors and windows.
- D. Preinstallation Conference: Conduct conference at Project site. Review methods and procedures related to flexible sheet flashing including, but not limited to, the following:
 - 1. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
 - 2. Review and discuss the flashing to be coordinated with the finishing of doors and windows.
 - 3. Review, discuss, and coordinate the interrelationship of flexible flashing with other exterior wall components. Include provisions for sealants and fasteners.
 - 4. Review and discuss the sequence of work required to construct a watertight and weathertight exterior building envelope.
 - 5. Inspect and discuss the condition of substrate and other preparatory work performed by other trades.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver liquid materials to Project site in original packages with seals unbroken, labeled with manufacturer's name, product brand name and type, date of manufacture, and directions for storing and mixing with other components.
- B. Store liquid materials in their original undamaged packages in a clean, dry, protected location and within temperature range required by flexible sheet flashing manufacturer.
- C. Remove and replace liquid materials that cannot be applied within their stated shelf life.
- D. Store rolls according to manufacturer's written instructions.
- E. Protect stored materials from direct sunlight.

1.6 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of flexible sheet flashing that fails in materials or workmanship within specified warranty period.
 - 1. Warranty Period: 2 years.
- B. Installer's Warranty: 1 year.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Flexible Sheet Flashing: Subject to compliance with requirements, provide either the named product or an equal product by one of the other manufacturers specified.
 - 1. WR Grace (Basis of Design).

2. FortiFlash by Fortifiber.
3. FlexWrap and StraightFlash by DuPont.
4. Or equal.

2.2 FLEXIBLE SHEET FLASHING

- A. Product: Vycor Plus by WR Grace or equal.
1. Self-Adhered, cross-laminated high-density polyethylene (HDPE) sheet, backed by aggressive pressure-sensitive rubberized asphalt adhesive.
 2. Thickness: 25 mil minimum per ASTM D3767, Method A.
 3. Low temperature flexibility: Unaffected at minus 45 degrees F. per ASTM D1970.
 4. Elongation, ultimate failure of rubberized asphalt: 200 percent minimum per ASTM D412.
 5. Cracked cycling 100 cycles: Unaffected at minus 25 degrees F. per ASTM C836.
 6. Lap adhesion at minimum application temperature: 60 plf width per ASTM D1876 modified.
 7. Adhesion to concrete at minimum application temperature: 60 plf width per ASTM D903.
 8. ICBO: ER-6141.
 9. Recommended exposure limit: 30 days.
 10. Perm-A-Barrier by Grace is not acceptable.

2.3 AUXILIARY MATERIALS

- A. Mastic, Joint Sealant, Adhesives, and Tape: Liquid mastic and adhesives, and adhesive tapes recommended by flexible sheet flashing manufacturer.
1. Caulking, sealants, and adhesives applied on the interior of the building envelope shall comply with South Coast Air Quality Management District (SCAQMD) Rule 1168.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements and other conditions affecting performance.
1. Verify that concrete has cured and aged for minimum time period recommended by flexible sheet flashing manufacturer.
 2. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Install flexible sheet flashing in accordance with the manufacturer's written instructions, AAMA Publication 2400, and the applicable code.

END OF SECTION 076500

SECTION 078413 - PENETRATION FIRESTOPPING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes:
 - 1. Through-penetration firestop systems for penetrations through fire-resistance-rated constructions, including both empty openings and openings containing penetrating items, whether indicated on drawings or not, and other openings indicated.
- B. Related Sections include the following:
 - 1. Division 7 Section "Fire-Resistive Joint Systems."
 - 2. Division 7 Section "Joint Sealants" for non-fire-resistive joint sealants.

1.3 PERFORMANCE REQUIREMENTS

- A. General: For penetrations through the following fire-resistance-rated constructions, including both empty openings and openings containing penetrating items, provide through-penetration firestop systems that are produced and installed to resist spread of fire according to requirements indicated, resist passage of smoke and other gases, and maintain original fire-resistance rating of construction penetrated.
 - 1. Fire-resistance-rated walls including fire walls, fire partitions, fire barriers, and smoke barriers.
 - 2. Fire-resistance-rated horizontal assemblies including floors, floor/ceiling assemblies, and ceiling membranes of roof/ceiling assemblies.
- B. Rated Systems: Provide through-penetration firestop systems with the following ratings determined per ASTM E 814 or UL 1479:
 - 1. F-Rated Systems: Provide through-penetration firestop systems with F-ratings indicated, but not less than that equaling or exceeding fire-resistance rating of constructions penetrated.
 - 2. T-Rated Systems: For the following conditions, provide through-penetration firestop systems with T-ratings indicated, as well as F-ratings, where systems protect penetrating items exposed to potential contact with adjacent materials in occupiable floor areas:
 - a. Penetrations located outside wall cavities.
 - b. Penetrations located outside fire-resistance-rated shaft enclosures.
 - 3. L-Rated Systems: Provide through-penetration firestop systems with L-ratings of not more than 3.0 cfm/sq. ft at both ambient temperatures and 400 deg F.

- C. For through-penetration firestop systems exposed to view, traffic, moisture, and physical damage, provide products that, after curing, do not deteriorate when exposed to these conditions both during and after construction.
 - 1. For piping penetrations for plumbing and wet-pipe sprinkler systems, provide moisture-resistant through-penetration firestop systems.
 - 2. For floor penetrations with annular spaces exceeding 4 inches in width and exposed to possible loading and traffic, provide firestop systems capable of supporting floor loads involved, either by installing floor plates or by other means.
 - 3. For penetrations involving insulated piping, provide through-penetration firestop systems not requiring removal of insulation.

- D. For through-penetration firestop systems exposed to view, provide products with flame-spread and smoke-developed indexes of less than 25 and 450, respectively, as determined per ASTM E 84.

1.4 SUBMITTALS

- A. Product Data: For each type of product indicated.

- B. Shop Drawings: For each through-penetration firestop system, show each type of construction condition penetrated, relationships to adjoining construction, and type of penetrating item. Include firestop design designation of qualified testing and inspecting agency that evidences compliance with requirements for each condition indicated.
 - 1. Submit documentation, including illustrations, from a qualified testing and inspecting agency that is applicable to each through-penetration firestop system configuration for construction and penetrating items.
 - 2. Where Project conditions require modification to a qualified testing and inspecting agency's illustration for a particular through-penetration firestop condition, submit illustration, with modifications marked, approved by through-penetration firestop system manufacturer's fire-protection engineer as an engineering judgment or equivalent fire-resistance-rated assembly.

- C. Through-Penetration Firestop System Schedule: Indicate locations of each through-penetration firestop system, along with the following information:
 - 1. Types of penetrating items.
 - 2. Types of constructions penetrated, including fire-resistance ratings and, where applicable, thicknesses of construction penetrated.
 - 3. Through-penetration firestop systems for each location identified by firestop design designation of qualified testing and inspecting agency.

- D. Qualification Data: For Installer.

- E. Product Test Reports: From a qualified testing agency indicating through-penetration firestop system complies with requirements, based on comprehensive testing of current products.

1.5 QUALITY ASSURANCE

- A. Installer Qualifications: A firm experienced in installing through-penetration firestop systems similar in material, design, and extent to that indicated for this Project, whose work has resulted

in construction with a record of successful performance. Qualifications include having the necessary experience, staff, and training to install manufacturer's products per specified requirements. Manufacturer's willingness to sell its through-penetration firestop system products to Contractor or to Installer engaged by Contractor does not in itself confer qualification on buyer.

- B. Installation Responsibility: Assign installation of through-penetration firestop systems and fire-resistive joint systems in Project to a single qualified installer.
- C. Source Limitations: Obtain through-penetration firestop systems, for each kind of penetration and construction condition indicated, through one source from a single manufacturer.
- D. Fire-Test-Response Characteristics: Provide through-penetration firestop systems that comply with the following requirements and those specified in Part 1 "Performance Requirements" Article:
 - 1. Firestopping tests are performed by a qualified testing and inspecting agency. A qualified testing and inspecting agency is UL, or another agency performing testing and follow-up inspection services for firestop systems acceptable to authorities having jurisdiction.
 - 2. Through-penetration firestop systems are identical to those tested per testing standard referenced in "Part 1 Performance Requirements" Article. Provide rated systems complying with the following requirements:
 - a. Through-penetration firestop systems correspond to those indicated by reference to through-penetration firestop system designations listed by the following:
 - 1) UL in its "Fire Resistance Directory."
- E. Preinstallation Conference: Conduct conference at Project site to comply with requirements.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver through-penetration firestop system products to Project site in original, unopened containers or packages with intact and legible manufacturers' labels identifying product and manufacturer, date of manufacture, lot number, shelf life if applicable, qualified testing and inspecting agency's classification marking applicable to Project, curing time, and mixing instructions for multicomponent materials.
- B. Store and handle materials for through-penetration firestop systems to prevent their deterioration or damage due to moisture, temperature changes, contaminants, or other causes.

1.7 PROJECT CONDITIONS

- A. Environmental Limitations: Do not install through-penetration firestop systems when ambient or substrate temperatures are outside limits permitted by through-penetration firestop system manufacturers or when substrates are wet due to rain, frost, condensation, or other causes.
- B. Ventilate through-penetration firestop systems per manufacturer's written instructions by natural means or, where this is inadequate, forced-air circulation.

1.8 COORDINATION

- A. Coordinate construction of openings and penetrating items to ensure that through-penetration firestop systems are installed according to specified requirements.
- B. Coordinate sizing of sleeves, openings, core-drilled holes, or cut openings to accommodate through-penetration firestop systems.
- C. Notify Owner's inspecting agency at least seven days in advance of through-penetration firestop system installations; confirm dates and times on days preceding each series of installations.
- D. Do not cover up through-penetration firestop system installations that will become concealed behind other construction until each installation has been examined by Owner's inspecting agency and building inspector, if required by authorities having jurisdiction.

1.9 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of through-penetration firestop system that fails in materials or workmanship within specified warranty period.
 - 1. Warranty Period: 2 years.
- B. Installer's Warranty: 1 year.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Through-Penetration Firestop Systems: Subject to compliance with requirements, provide one of the through-penetration firestop systems for each application that are produced by one of the following manufacturers.
 - 1. Hilti, Inc.
 - 2. Specified Technologies Inc.
 - 3. 3M; Fire Protection Products Division.
 - 4. Or equal.

2.2 FIRESTOPPING, GENERAL

- A. Compatibility: Provide through-penetration firestop systems that are compatible with one another; with the substrates forming openings; and with the items, if any, penetrating through-penetration firestop systems, under conditions of service and application, as demonstrated by through-penetration firestop system manufacturer based on testing and field experience.
- B. Accessories: Provide components for each through-penetration firestop system that are needed to install fill materials and to comply with Part 1 "Performance Requirements" Article. Use only components specified by through-penetration firestop system manufacturer and approved by

qualified testing and inspecting agency for firestop systems indicated. Accessories include, but are not limited to, the following items:

1. Permanent forming/damming/backing materials, including the following:
 - a. Slag-/rock-wool-fiber insulation.
 - b. Sealants used in combination with other forming/damming/backing materials to prevent leakage of fill materials in liquid state.
 - c. Fire-rated form board.
 - d. Fillers for sealants.
2. Temporary forming materials.
3. Substrate primers.
4. Collars.
5. Steel sleeves.

- C. Caulking, sealants, and adhesives applied on the interior of the building envelope shall comply with South Coast Air Quality Management District (SCAQMD) Rule 1168.

2.3 FILL MATERIALS

- A. General: Provide through-penetration firestop systems containing the types of fill materials indicated in the Through-Penetration Firestop System Schedule at the end of Part 3 by referencing the types of materials described in this Article. Fill materials are those referred to in directories of referenced testing and inspecting agencies as "fill," "void," or "cavity" materials.
- B. Cast-in-Place Firestop Devices: Factory-assembled devices for use in cast-in-place concrete floors and consisting of an outer metallic sleeve lined with an intumescent strip, a radial extended flange attached to one end of the sleeve for fastening to concrete formwork, and a neoprene gasket.
- C. Latex Sealants: Single-component latex formulations that after cure do not re-emulsify during exposure to moisture.
- D. Firestop Devices: Factory-assembled collars formed from galvanized steel and lined with intumescent material sized to fit specific diameter of penetrant.
- E. Intumescent Composite Sheets: Rigid panels consisting of aluminum-foil-faced elastomeric sheet bonded to galvanized steel sheet.
- F. Intumescent Putties: Nonhardening dielectric, water-resistant putties containing no solvents, inorganic fibers, or silicone compounds.
- G. Intumescent Wrap Strips: Single-component intumescent elastomeric sheets with aluminum foil on one side.
- H. Mortars: Prepackaged dry mixes consisting of a blend of inorganic binders, hydraulic cement, fillers, and lightweight aggregate formulated for mixing with water at Project site to form a nonshrinking, homogeneous mortar.
- I. Pillows/Bags: Reusable heat-expanding pillows/bags consisting of glass-fiber cloth cases filled with a combination of mineral-fiber, water-insoluble expansion agents, and fire-retardant additives.

- J. Silicone Foams: Multicomponent, silicone-based liquid elastomers that, when mixed, expand and cure in place to produce a flexible, nonshrinking foam.
- K. Silicone Sealants: Single-component, silicone-based, neutral-curing elastomeric sealants of grade indicated below:
 - 1. Grade: Pourable (self-leveling) formulation for openings in floors and other horizontal surfaces, and nonsag formulation for openings in vertical and other surfaces requiring a nonslumping, gunnable sealant, unless indicated firestop system limits use to nonsag grade for both opening conditions.
 - 2. Grade for Horizontal Surfaces: Pourable (self-leveling) formulation for openings in floors and other horizontal surfaces.
 - 3. Grade for Vertical Surfaces: Nonsag formulation for openings in vertical and other surfaces.

2.4 MIXING

- A. For those products requiring mixing before application, comply with through-penetration firestop system manufacturer's written instructions for accurate proportioning of materials, water (if required), type of mixing equipment, selection of mixer speeds, mixing containers, mixing time, and other items or procedures needed to produce products of uniform quality with optimum performance characteristics for application indicated.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions, with Installer present, for compliance with requirements for opening configurations, penetrating items, substrates, and other conditions affecting performance of work.
 - 1. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Surface Cleaning: Clean out openings immediately before installing through-penetration firestop systems to comply with firestop system manufacturer's written instructions and with the following requirements:
 - 1. Remove from surfaces of opening substrates and from penetrating items foreign materials that could interfere with adhesion of through-penetration firestop systems.
 - 2. Clean opening substrates and penetrating items to produce clean, sound surfaces capable of developing optimum bond with through-penetration firestop systems. Remove loose particles remaining from cleaning operation.
 - 3. Remove laitance and form-release agents from concrete.
- B. Priming: Prime substrates where recommended in writing by through-penetration firestop system manufacturer using that manufacturer's recommended products and methods. Confine primers to areas of bond; do not allow spillage and migration onto exposed surfaces.

- C. Masking Tape: Use masking tape to prevent through-penetration firestop systems from contacting adjoining surfaces that will remain exposed on completion of Work and that would otherwise be permanently stained or damaged by such contact or by cleaning methods used to remove smears from firestop system materials. Remove tape as soon as possible without disturbing firestop system's seal with substrates.

3.3 THROUGH-PENETRATION FIRESTOP SYSTEM INSTALLATION

- A. General: Install through-penetration firestop systems to comply with Part 1 "Performance Requirements" Article and with firestop system manufacturer's written installation instructions and published drawings for products and applications indicated.
- B. Install forming/damming/backing materials and other accessories of types required to support fill materials during their application and in the position needed to produce cross-sectional shapes and depths required to achieve fire ratings indicated.
 - 1. After installing fill materials and allowing them to fully cure, remove combustible forming materials and other accessories not indicated as permanent components of firestop systems.
- C. Install fill materials for firestop systems by proven techniques to produce the following results:
 - 1. Fill voids and cavities formed by openings, forming materials, accessories, and penetrating items as required to achieve fire-resistance ratings indicated.
 - 2. Apply materials so they contact and adhere to substrates formed by openings and penetrating items.
 - 3. For fill materials that will remain exposed after completing Work, finish to produce smooth, uniform surfaces that are flush with adjoining finishes.

3.4 IDENTIFICATION

- A. Identify through-penetration firestop systems with preprinted metal or plastic labels. Attach labels permanently to surfaces adjacent to and within 6 inches of edge of the firestop systems so that labels will be visible to anyone seeking to remove penetrating items or firestop systems. Use mechanical fasteners for metal labels. For plastic labels, use self-adhering type with adhesives capable of permanently bonding labels to surfaces on which labels are placed and, in combination with label material, will result in partial destruction of label if removal is attempted. Include the following information on labels:
 - 1. The words "Warning - Through-Penetration Firestop System - Do Not Disturb. Notify Building Management of Any Damage."
 - 2. Contractor's name, address, and phone number.
 - 3. Through-penetration firestop system designation of applicable testing and inspecting agency.
 - 4. Date of installation.
 - 5. Through-penetration firestop system manufacturer's name.
 - 6. Installer's name.

3.5 FIELD QUALITY CONTROL

- A. Inspecting Agency: Owner will engage a qualified, independent inspecting agency to inspect through-penetration firestops. Independent inspecting agency shall comply with ASTM E 2174

requirements including those related to qualifications, conducting inspections, and preparing test reports.

- B. Where deficiencies are found, repair or replace through-penetration firestop systems so they comply with requirements.
- C. Proceed with enclosing through-penetration firestop systems with other construction only after inspection reports are issued and firestop installations comply with requirements.

3.6 CLEANING AND PROTECTING

- A. Clean off excess fill materials adjacent to openings as Work progresses by methods and with cleaning materials that are approved in writing by through-penetration firestop system manufacturers and that do not damage materials in which openings occur.
- B. Provide final protection and maintain conditions during and after installation that ensure that through-penetration firestop systems are without damage or deterioration at time of Substantial Completion. If, despite such protection, damage or deterioration occurs, cut out and remove damaged or deteriorated through-penetration firestop systems immediately and install new materials to produce systems complying with specified requirements.

3.7 THROUGH-PENETRATION FIRESTOP SYSTEM LOCATION

- A. For penetrations by non combustible items including steel pipe, copper pipe, rigid steel conduit and electrical metallic tubing (EMT), the following materials are acceptable:
 - 1. Hilti FS 601 Elastomeric Firestop Sealant.
 - 2. Hilti FS ONE High Performance Intumescent Firestop Sealant.
 - 3. 3M Fire Stop Sealant 2000 4. 3M Fire Barrier CP25 WB.
 - 4. Tremco Tremstop Fyre Sil Sealant.
 - 5. Or equal.
- B. For penetrations by combustible items (penetrants consumed by high heat flame) including insulated metal pipe, PVC jacketed, flexible cable or cable bundles and plastic pipe (closed piping systems) the following materials are acceptable:
 - 1. Hilti FS ONE High Performance Intumescent Firestop Sealant.
 - 2. Hilti CP 618 Firestop Putty.
 - 3. Hilti CP 642 Firestop Jacket.
 - 4. Hilti CP 643 Firestop Jacket.
 - 5. 3M Fire Barrier CP25 WB.
 - 6. 3M Fire Barrier FS 195 Wrap/Strip.
 - 7. Tremco Tremstop WBM Intumescent Firestop Sealant.
 - 8. Or equal.
- C. For penetrations by combustible plastic pipe (open piping systems), the following materials are acceptable:
 - 1. Hilti CP 642 Firestop Jacket.
 - 2. Hilti CP 643 Firestop Jacket.
 - 3. Hilti FS ONE High Performance Intumescent Firestop Sealant.
 - 4. 3M Fire Barrier PPO Plastic Pipe Device.

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5. Or equal.
- D. For large size/complex penetrations made to accommodate cable trays, multiple steel and copper pipes, electrical busways in raceways' the following materials are acceptable:
1. Hilti FS 635 Trowelable Firestop Compound.
 2. Hilti FIRE BLOCK.
 3. 3M Firestop Foam 2001.
 4. 3M Fire Barrier CS 195 Composite Sheet.
 5. Or equal.

END OF SECTION 078413

SECTION 078446 - FIRE-RESISTIVE JOINT SYSTEMS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes fire-resistive joint systems for interruptions to fire rated assemblies, whether indicated on drawings or not, and other openings indicated.
- B. Related Sections include the following:
 - 1. Division 7 Section "Penetration Firestopping" for systems installed in openings in walls and floors with and without penetrating items.
 - 2. Division 7 Section "Joint Sealants" for non-fire-resistive joint sealants.

1.3 PERFORMANCE REQUIREMENTS

- A. General: Provide fire-resistive joint systems that are produced and installed to resist spread of fire according to requirements indicated, resist passage of smoke and other gases, and maintain original fire-resistance rating of assembly in which fire-resistive joint systems are installed.
- B. Joint Systems in and between Fire-Resistance-Rated Constructions: Provide systems with assembly ratings equaling or exceeding the fire-resistance ratings of construction that they join, and with movement capabilities and L-ratings indicated as determined by UL 2079.
 - 1. Load-bearing capabilities as determined by evaluation during the time of test.
- C. For fire-resistive systems exposed to view, provide products with flame-spread and smoke-developed indexes of less than 25 and 450, respectively, as determined per ASTM E 84.

1.4 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Product Certificates: For each type of fire-resistive joint system, signed by product manufacturer.
- C. Qualification Data: For Installer.
- D. Field quality-control test reports.
- E. Evaluation Reports: Evidence of fire-resistive joint systems' compliance with ICBO ES AC30, from the ICBO Evaluation Service.

1.5 QUALITY ASSURANCE

- A. Installer Qualifications: A firm that has been approved by FMG according to FMG 4991, "Approval of Firestop Contractors."
- B. Installation Responsibility: Assign installation of through-penetration firestop systems and fire-resistive joint systems in Project to a single qualified installer.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver fire-resistive joint system products to Project site in original, unopened containers or packages with qualified testing and inspecting agency's classification marking applicable to Project and with intact and legible manufacturers' labels identifying product and manufacturer, date of manufacture, lot number, shelf life, curing time, and mixing instructions for multicomponent materials.
- B. Store and handle materials for fire-resistive joint systems to prevent their deterioration or damage due to moisture, temperature changes, contaminants, or other causes.

1.7 PROJECT CONDITIONS

- A. Environmental Limitations: Do not install fire-resistive joint systems when ambient or substrate temperatures are outside limits permitted by fire-resistive joint system manufacturers or when substrates are wet due to rain, frost, condensation, or other causes.
- B. Ventilate fire-resistive joint systems per manufacturer's written instructions by natural means or, if this is inadequate, forced-air circulation.

1.8 COORDINATION

- A. Coordinate construction of joints to ensure that fire-resistive joint systems are installed according to specified requirements.
- B. Coordinate sizing of joints to accommodate fire-resistive joint systems.
- C. Do not cover up fire-resistive joint system installations that will become concealed behind other construction until Owner's inspecting agency and building inspector of authorities having jurisdiction have examined each installation.

1.9 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of fire-resistive joint systems that fails in materials or workmanship within specified warranty period.
 - 1. Warranty Period: 2 years.
- B. Installer's Warranty: 1 year.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Fire-Resistive Joint Systems: Subject to compliance with requirements, provide one of the through-penetration firestop systems for each application that are produced by one of the following manufacturers.
1. Hilti, Inc.
 2. Specified Technologies Inc.
 3. 3M; Fire Protection Products Division.
 4. Or equal.

2.2 FIRE-RESISTIVE JOINT SYSTEMS

- A. Compatibility: Provide fire-resistive joint systems that are compatible with joint substrates, under conditions of service and application, as demonstrated by fire-resistive joint system manufacturer based on testing and field experience.
- B. Accessories: Provide components of fire-resistive joint systems, including primers and forming materials, that are needed to install fill materials and to comply with Part 1 "Performance Requirements" Article. Use only components specified by fire-resistive joint system manufacturer and approved by the qualified testing and inspecting agency for systems indicated.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions, with Installer present, for compliance with requirements for joint configurations, substrates, and other conditions affecting performance of work.
1. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Surface Cleaning: Clean joints immediately before installing fire-resistive joint systems to comply with fire-resistive joint system manufacturer's written instructions and the following requirements:
1. Remove from surfaces of joint substrates foreign materials that could interfere with adhesion of fill materials.
 2. Clean joint substrates to produce clean, sound surfaces capable of developing optimum bond with fill materials. Remove loose particles remaining from cleaning operation.
 3. Remove laitance and form-release agents from concrete.
- B. Priming: Prime substrates where recommended in writing by fire-resistive joint system manufacturer using that manufacturer's recommended products and methods. Confine primers to areas of bond; do not allow spillage and migration onto exposed surfaces.

- C. Masking Tape: Use masking tape to prevent fill materials of fire-resistive joint system from contacting adjoining surfaces that will remain exposed on completion of Work and that would otherwise be permanently stained or damaged by such contact or by cleaning methods used to remove smears from fire-resistive joint system materials. Remove tape as soon as possible without disturbing fire-resistive joint system's seal with substrates or damaging adjoining surfaces.

3.3 INSTALLATION

- A. General: Install fire-resistive joint systems to comply with Part 1 "Performance Requirements" Article and fire-resistive joint system manufacturer's written installation instructions for products and applications indicated.
- B. Install forming/packing/backing materials and other accessories of types required to support fill materials during their application and in position needed to produce cross-sectional shapes and depths required to achieve fire ratings indicated.
- C. Install fill materials for fire-resistive joint systems by proven techniques to produce the following results:
 - 1. Fill voids and cavities formed by openings and forming/packing/backing materials as required to achieve fire-resistance ratings indicated.
 - 2. Apply fill materials so they contact and adhere to substrates formed by joints.
 - 3. For fill materials that will remain exposed after completing Work, finish to produce smooth, uniform surfaces that are flush with adjoining finishes.

3.4 FIELD QUALITY CONTROL

- A. Inspecting Agency: Engage a qualified independent inspecting agency to inspect fire-resistive joint systems and prepare inspection reports.
- B. Testing Services: Inspecting of completed installations of fire-resistive joint systems shall take place in successive stages as installation of fire-resistive joint systems proceeds. Do not proceed with installation of joint systems for the next area until inspecting agency determines completed work shows compliance with requirements.
 - 1. Inspecting agency shall state in each report whether inspected fire-resistive joint systems comply with or deviate from requirements.
- C. Remove and replace fire-resistive joint systems where inspections indicate that they do not comply with specified requirements.
- D. Additional inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.
- E. Proceed with enclosing fire-resistive joint systems with other construction only after inspection reports are issued and fire-resistive joint systems comply with requirements.

3.5 CLEANING AND PROTECTING

- A. Clean off excess fill materials adjacent to joints as Work progresses by methods and with cleaning materials that are approved in writing by fire-resistive joint system manufacturers and that do not damage materials in which openings occur.
- B. Provide final protection and maintain conditions during and after installation that ensure fire-resistive joint systems are without damage or deterioration at time of Substantial Completion. If damage or deterioration occurs despite such protection, cut out and remove damaged or deteriorated fire-resistive joint systems immediately and install new materials to produce fire-resistive joint systems complying with specified requirements.

3.6 FIRE-RESISTIVE JOINT SYSTEM LOCATION

- A. For fire rated construction joints and other gaps, the following materials are acceptable:
 - 1. FS 601 Elastomeric Firestop Sealant by Hilti.
 - 2. CP 601 s Elastomeric Firestop Sealant by Hilti.
 - 3. CP 606 Flexible Firestop Sealant by Hilti.
 - 4. CP 672 Firestop Joint Spray by Hilti.
 - 5. Firestop Sealant 2000 by 3M.
 - 6. Tremstop Fyre Sil Sealant by Tremco.
 - 7. Or equal.
- B. For openings between structurally separate sections of wall and floors. Top of walls, the following materials along with Thermafiber Safing are acceptable:
 - 1. FS 60t Elastomeric Firestop Sealant by Hilti.
 - 2. CP 601s Elastomeric Firestop Sealant by Hilti.
 - 3. CP 606 Flexible Firestop Sealant. by Hilti
 - 4. FS ONE High Performance Intumescent Firestop Sealant by Hilti.
 - 5. Fire Barrier CP 25 WB by 3M.
 - 6. Or equal.
- C. Firestopping at Electrical Boxes and Utility Outlets.
 - 1. CP 618 Firestop Putty Stick by Hilti.
 - 2. CP 617 and CP 617L Firestop Putty Pad by Hilti.
 - 3. Or equal.

END OF SECTION 078446

SECTION 079200 - JOINT SEALANTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes joint sealants.
- B. Related Sections include the following:
 - 1. Division 7 Section "Fire-Resistive Joint Systems" for sealing joints in fire-resistance-rated construction.
 - 2. Division 7 Section "Penetration Firestopping" for systems installed in openings in walls and floors with and without penetrating items.

1.3 PERFORMANCE REQUIREMENTS

- A. Provide elastomeric joint sealants that establish and maintain watertight and airtight continuous joint seals without staining or deteriorating joint substrates.

1.4 SUBMITTALS

- A. Product Data: For each joint-sealant product indicated.
- B. Samples for Initial Selection: Manufacturer's color charts consisting of strips of cured sealants showing the full range of colors available for each product exposed to view.
- C. Product Certificates: For each type of joint sealant and accessory, signed by product manufacturer.
- D. SWRI Validation Certificate: For each elastomeric sealant specified to be validated by SWRI's Sealant Validation Program.
- E. Qualification Data: For Installer.
- F. Compatibility and Adhesion Test Reports: From sealant manufacturer, indicating the following:
 - 1. Materials forming joint substrates and joint-sealant backings have been tested for compatibility and adhesion with joint sealants.
 - 2. Interpretation of test results and written recommendations for primers and substrate preparation needed for adhesion.

- G. Product Test Reports: Based on comprehensive testing of product formulations performed by a qualified testing agency, indicating that sealants comply with requirements.
- H. Warranties: Special warranties specified in this Section.

1.5 QUALITY ASSURANCE

- A. Installer Qualifications: Manufacturer's authorized Installer who is approved or licensed for installation of elastomeric sealants required for this Project.
- B. Source Limitations: Obtain each type of joint sealant through one source from a single manufacturer.

1.6 PROJECT CONDITIONS

- A. Do not proceed with installation of joint sealants under the following conditions:
 - 1. When ambient and substrate temperature conditions are outside limits permitted by joint-sealant manufacturer or are below 40 deg F.
 - 2. When joint substrates are wet.
 - 3. Where joint widths are less than those allowed by joint-sealant manufacturer for applications indicated.
 - 4. Contaminants capable of interfering with adhesion have not yet been removed from joint substrates.

1.7 WARRANTY

- A. Special Manufacturer's Warranty: Manufacturer's standard form in which elastomeric sealant manufacturer agrees to furnish elastomeric joint sealants to repair or replace those that do not comply with performance and other requirements specified in this Section within specified warranty period.
 - 1. Warranty Period: 2 years.
- B. Special warranties specified in this Article exclude deterioration or failure of elastomeric joint sealants from the following:
 - 1. Movement of the structure resulting in stresses on the sealant exceeding sealant manufacturer's written specifications for sealant elongation and compression caused by structural settlement or errors attributable to design or construction.
 - 2. Disintegration of joint substrates from natural causes exceeding design specifications.
 - 3. Mechanical damage caused by individuals, tools, or other outside agents.
 - 4. Changes in sealant appearance caused by accumulation of dirt or other atmospheric contaminants.
- C. Special Installer's Warranty: Installer's standard form in which Installer agrees to repair or replace elastomeric joint sealants that do not comply with performance and other requirements specified in this Section within specified warranty period.
 - 1. Warranty Period: 2 years.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Joint Sealants: Subject to compliance with requirements, provide either the named product or an equal product by one of the other manufacturers specified.
 - 1. Pecora Corporation. (Basis of Design)
 - 2. Bostik.
 - 3. Dow Corning Corp.
 - 4. GE Plastics.
 - 5. Sonneborn Building Products, ChemRex, Inc.
 - 6. Tremco, Inc.
 - 7. Or equal.

2.2 MATERIALS, GENERAL

- A. Compatibility: Provide joint sealants, backings, and other related materials that are compatible with one another and with joint substrates under conditions of service and application, as demonstrated by sealant manufacturer, based on testing and field experience.
- B. Colors of Exposed Joint Sealants:
 - 1. As selected by Architect from manufacturer's full range.
 - 2. Areas where concrete joint sealant will be adjacent to concrete other than standard gray, sealant color shall match adjacent color as approved by Architect.

2.3 MISCELLANEOUS MATERIALS

- A. Primer: Material recommended by joint-sealant manufacturer where required for adhesion of sealant to joint substrates indicated, as determined from preconstruction joint-sealant-substrate tests and field tests.
- B. Cleaners for Nonporous Surfaces: Chemical cleaners acceptable to manufacturers of sealants and sealant backing materials, free of oily residues or other substances capable of staining or harming joint substrates and adjacent nonporous surfaces in any way, and formulated to promote optimum adhesion of sealants to joint substrates.
- C. Masking Tape: Nonstaining, nonabsorbent material compatible with joint sealants and surfaces adjacent to joints.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine joints indicated to receive joint sealants, with Installer present, for compliance with requirements for joint configuration, installation tolerances, and other conditions affecting joint-sealant performance.

- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Surface Cleaning of Joints: Clean out joints immediately before installing joint sealants to comply with joint-sealant manufacturer's written instructions and the following requirements:
 - 1. Remove all foreign material from joint substrates that could interfere with adhesion of joint sealant, including dust, paints (except for permanent, protective coatings tested and approved for sealant adhesion and compatibility by sealant manufacturer), old joint sealants, oil, grease, waterproofing, water repellents, water, surface dirt, and frost.
 - 2. Clean porous joint substrate surfaces by brushing, grinding, blast cleaning, mechanical abrading, or a combination of these methods to produce a clean, sound substrate capable of developing optimum bond with joint sealants. Remove loose particles remaining after cleaning operations above by vacuuming or blowing out joints with oil-free compressed air.
 - 3. Remove laitance and form-release agents from concrete.
 - a. Clean nonporous surfaces with chemical cleaners or other means that do not stain, harm substrates, or leave residues capable of interfering with adhesion of joint sealants.
- B. Joint Priming: Prime joint substrates, where recommended in writing by joint-sealant manufacturer, based on preconstruction joint-sealant-substrate tests or prior experience. Apply primer to comply with joint-sealant manufacturer's written instructions. Confine primers to areas of joint-sealant bond; do not allow spillage or migration onto adjoining surfaces.
- C. Masking Tape: Use masking tape where required to prevent contact of sealant with adjoining surfaces that otherwise would be permanently stained or damaged by such contact or by cleaning methods required to remove sealant smears. Remove tape immediately after tooling without disturbing joint seal.

3.3 INSTALLATION OF JOINT SEALANTS

- A. General: Comply with joint-sealant manufacturer's written installation instructions for products and applications indicated, unless more stringent requirements apply.
- B. Sealant Installation Standard: Comply with recommendations in ASTM C 1193 for use of joint sealants as applicable to materials, applications, and conditions indicated.
- C. Acoustical Sealant Application Standard: Comply with recommendations in ASTM C 919 for use of joint sealants in acoustical applications as applicable to materials, applications, and conditions indicated.
- D. Install sealant backings of type indicated to support sealants during application and at position required to produce cross-sectional shapes and depths of installed sealants relative to joint widths that allow optimum sealant movement capability.
 - 1. Do not leave gaps between ends of sealant backings.
 - 2. Do not stretch, twist, puncture, or tear sealant backings.
 - 3. Remove absorbent sealant backings that have become wet before sealant application and replace them with dry materials.

- E. Install bond-breaker tape behind sealants where sealant backings are not used between sealants and backs of joints.
- F. Install sealants using proven techniques that comply with the following and at the same time backings are installed:
 - 1. Place sealants so they directly contact and fully wet joint substrates.
 - 2. Completely fill recesses in each joint configuration.
 - 3. Produce uniform, cross-sectional shapes and depths relative to joint widths that allow optimum sealant movement capability.
- G. Tooling of Nonsag Sealants: Immediately after sealant application and before skinning or curing begins, tool sealants according to requirements specified below to form smooth, uniform beads of configuration indicated; to eliminate air pockets; and to ensure contact and adhesion of sealant with sides of joint.
 - 1. Remove excess sealant from surfaces adjacent to joints.
 - 2. Use tooling agents that are approved in writing by sealant manufacturer and that do not discolor sealants or adjacent surfaces.
 - 3. Provide concave joint configuration per Figure 5A in ASTM C 1193, unless otherwise indicated.
 - 4. Provide flush joint configuration where indicated per Figure 5B in ASTM C 1193.
 - 5. Provide recessed joint configuration of recess depth and at locations indicated per Figure 5C in ASTM C 1193.
 - a. Use masking tape to protect surfaces adjacent to recessed tooled joints.
- H. Installation of Preformed Tapes: Install according to manufacturer's written instructions.
- I. Installation of Preformed Silicone-Sealant System: Comply with the following requirements:
 - 1. Apply masking tape to each side of joint, outside of area to be covered by sealant system.
 - 2. Apply silicone sealant to each side of joint to produce a bead of size complying with preformed silicone-sealant system manufacturer's written instructions and covering a bonding area of not less than 3/8 inch. Hold edge of sealant bead 1/4 inch inside masking tape.
 - 3. Within 10 minutes of sealant application, press silicone extrusion into sealant to wet extrusion and substrate. Use a roller to apply consistent pressure and ensure uniform contact between sealant and both extrusion and substrate.
 - 4. Complete installation of sealant system in horizontal joints before installing in vertical joints. Lap vertical joints over horizontal joints. At ends of joints, cut silicone extrusion with a razor knife.
- J. Installation of Preformed Foam Sealants: Install each length of sealant immediately after removing protective wrapping, taking care not to pull or stretch material, producing seal continuity at ends, turns, and intersections of joints. For applications at low ambient temperatures where expansion of sealant requires acceleration to produce seal, apply heat to sealant in compliance with sealant manufacturer's written instructions.

3.4 CLEANING

- A. Clean off excess sealant or sealant smears adjacent to joints as the Work progresses by methods and with cleaning materials approved in writing by manufacturers of joint sealants and of products in which joints occur.

3.5 PROTECTION

- A. Protect joint sealants during and after curing period from contact with contaminating substances and from damage resulting from construction operations or other causes so sealants are without deterioration or damage at time of Substantial Completion. If, despite such protection, damage or deterioration occurs, cut out and remove damaged or deteriorated joint sealants immediately so installations with repaired areas are indistinguishable from original work.

3.6 JOINT-SEALANT LOCATION

- A. General Purpose Exterior Sealant: Polyurethane; ASTM C 920, Grade NS, Class 25, Uses M, G, and A; single component.
 - 1. Products:
 - a. Dynatrol I-XL by Pecora.
 - 2. Color: Standard colors matching finished surfaces.
 - 3. Applications:
 - a. Control, expansion, and soft joints in masonry.
 - b. Joints between concrete and other materials.
 - c. Joints between metal frames and other materials.
 - d. Other exterior joints for which no other sealant is indicated.
- B. Exterior Metal Lap Joint Sealant: Butyl or polyisobutylene, nondrying, nonskinning, noncuring.
 - 1. Products:
 - a. 895 Silicone or Sil-Span by Pecora.
 - 2. Color: Standard colors matching finished surfaces.
 - 3. Applications:
 - a. Concealed sealant bead in sheet metal work.
 - b. Concealed sealant bead in siding overlaps.
- C. General Purpose Interior Sealant: Acrylic emulsion latex; ASTM C 834, Type OP, Grade NF single component, paintable.
 - 1. Products:
 - a. AC-20 manufactured by Pecora.
 - 2. Color: Standard colors matching finished surfaces.
 - 3. Applications:
 - a. Interior wall and ceiling control joints.
 - b. Joints between door and window frames and wall surfaces.
 - c. Other interior joints for which no other type of sealant is indicated.
- D. Acoustical Sealant: Butyl or acrylic sealant; ASTM C 920, Grade NS, Class 12-1/2, Uses M and A; single component latex sealant.
 - 1. Acoustical Sealant for Exposed and Concealed Joints:
 - a. Pecora Corporation; AC-20 FTR Acoustical and Insulation Sealant.
 - b. USG Corporation; SHEETROCK Acoustical Sealant.
 - c. Or equal.
 - 2. Acoustical Sealant for Concealed Joints:
 - a. OSI Sealants, Inc.; Pro-Series SC-175 Rubber Base Sound Sealant.
 - b. Pecora Corporation; BA-98.
 - c. Tremco, Inc.; Tremco Acoustical Sealant.
 - d. Or equal.

- E. Interior Floor Joint Sealant: Polyurethane, chemically-curing, cold-applied, self-leveling elastomeric sealant; ASTM C 920, Grade P, Class 25, Uses T, M and A; two-part.
1. Products:
 - a. NR-200 self-leveling polyurethane and/or DYNATRED non-sag, traffic-grade polyurethane sealants by Pecora.
 2. Primer: P-150, P-75 or P-200.
 3. Color: Standard colors matching finished surfaces.
 4. Applications: Use for joints up to 1-1/2 inches.
 - a. Expansion joints in floors.
- F. Concrete Paving Joint Sealant: Polyurethane, chemically-curing, cold-applied, self-leveling elastomeric sealant; ASTM C 920, Class 25, Uses T, I, M and A; two-part.
1. Products:
 - a. NR-200 Urexpand and/or DYNATRED non-sag, traffic-grade polyurethane sealant by Pecora or equal.
 2. Primer: P-150, P-75 or P-200.
 3. Color: Gray.
 4. Applications:
 - a. Joints in sidewalks and vehicular paving.
- G. Butyl Sealant: ASTM C 920, Grade NS, Class 12-1/2, Uses NT, M, A, G, O; single component, solvent release, non-skinning, non-sagging.
1. Products:
 - a. BC-158 sealant by Pecora.
 2. Color: Standard colors matching finished surfaces.
 3. Movement Capability: Plus and minus 12-1/2 percent.
 4. Service Temperature Range: -13 to 180 degrees F.
 5. Shore A Hardness Range: 10 to 30.
- H. Silicone Sealant: ASTM C 920, Grade NS, Class 25, Uses NT, A, G, M, O; single component, solvent curing, non-sagging, non-staining, fungus resistant, non-bleeding.
1. Products:
 - a. 864 LM Architectural silicone or 890 silicone sealant by Pecora.
 - b. 790 by Dow Corning Corporation.
 2. Color: Standard colors matching finished surfaces.
 3. Movement Capability: Plus and minus 25 percent.
 4. Applications:
 - a. Interior or exterior for joints 1/8 to 1-1/2 inch wide.
 - b. Exterior use at expansion joints in masonry where substantial movement is expected.
 - c. Glazing application.

END OF SECTION 079200

SECTION 081113 - STEEL DOORS AND FRAMES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Standard hollow metal doors and frames.
 - 2. Trash bin doors from standard hollow metal doors and frames.
- B. Related Sections include the following:
 - 1. Division 7 Section "Flexible Sheet Flashing" for flashing windows, door, and other openings.
 - 2. Division 8 Section "Door Hardware" for door hardware for hollow metal doors.
 - 3. Division 9 Section "Painting" for field painting hollow metal doors and frames.

1.3 DEFINITIONS

- A. Minimum Thickness: Minimum thickness of base metal without coatings.
- B. Standard Hollow Metal Work: Hollow metal work fabricated according to ANSI/SDI A250.8.

1.4 SUBMITTALS

- A. Product Data: For each type of product indicated. Include construction details, material descriptions, core descriptions, fire-resistance rating, temperature-rise ratings, and finishes.
- B. Other Action Submittals:
 - 1. Schedule: Provide a schedule of hollow metal work prepared by or under the supervision of supplier, using same reference designation for details and openings as those on Drawings. Coordinate with door hardware schedule.
 - a. Indicate location, size, and hand of each door; elevation of each kind of door; construction details not covered in Product Data; location and extent of hardware blocking; and other pertinent data.
 - b. Indicated specific model number of door and frame.
 - c. Indicate steel sheet type (galvanized, non-galvanized, etc.)
 - d. Indicate door and frame type (A, A1, B, C, etc.)
 - e. Indicated hardware group.
 - f. Indicate dimensions and locations of mortises and holes for hardware.
 - g. Indicate dimensions and locations of cutouts.

h. Indicate fire ratings for fire doors.

- C. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, for each type of hollow metal door and frame assembly.

1.5 QUALITY ASSURANCE

- A. Source Limitations: Obtain hollow metal work from single source from single manufacturer.
- B. Fire-Rated Door Assemblies: Assemblies complying with CBC 715 and NFPA 80 that are listed and labeled by a qualified testing agency, for fire-protection ratings indicated, based on testing at positive pressure according to UL-10C.
1. Temperature-Rise Limit: Where required, provide doors that have a maximum transmitted temperature end point of not more than 450 deg F above ambient after 30 minutes of standard fire-test exposure per CBC Section 715.4.4.
- C. Fire-Rated, Borrowed-Light Frame Assemblies: Assemblies complying with CBC 715 and NFPA 80 that are listed and labeled, by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire-protection ratings indicated, based on testing according to CBC Section 715.4.5. Label each individual glazed lite.
- D. Smoke-Control Door Assemblies: Comply with CBC Section 715.4.3.1
- E. Preinstallation Conference: Conduct conference at Project site.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver hollow metal work palletized, wrapped, or crated to provide protection during transit and Project-site storage. Do not use nonvented plastic.
1. Provide additional protection to prevent damage to finish of factory-finished units.
- B. Deliver welded frames with two removable spreader bars across bottom of frames, tack welded to jambs and mullions.
- C. Store hollow metal work under cover at Project site. Place in stacks of five units maximum in a vertical position with heads up, spaced by blocking, on minimum 4-inch- high wood blocking. Do not store in a manner that traps excess humidity.
1. Provide minimum 1/4-inch space between each stacked door to permit air circulation.

1.7 PROJECT CONDITIONS

- A. Field Measurements: Verify actual dimensions of openings by field measurements before fabrication.

1.8 COORDINATION

- A. Coordinate installation of anchorages for hollow metal frames. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors. Deliver such items to Project site in time for installation.

1.9 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of steel doors and frames that fails in materials or workmanship within specified warranty period.
 - 1. Failures include, but are not limited to, the following:
 - a. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
 - 2. Warranty Period: 2 years.
- B. Installer's Warranty: 1 year.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Steel Doors and Frames: Subject to compliance with requirements, provide either the named product or an equal product by one of the other manufacturers specified.
 - 1. Steelcraft; an Ingersoll-Rand company. (Basis of Design).
 - 2. Ceco Door Products; an Assa Abloy Group company.
 - 3. Curries Company; an Assa Abloy Group company.
 - 4. Or equal.

2.2 MATERIALS

- A. Recycled Content of Steel Products: Provide products with average recycled content of steel products such that post-consumer recycled content plus one-half of pre-consumer recycled content is not less than 25 percent.
- B. Cold-Rolled Steel Sheet: ASTM A 1008, Commercial Steel (CS), Type B; suitable for exposed applications for interior doors and frames.
- C. Galvannealed (Metallic-Coated) Steel Sheet: ASTM A 653, Commercial Steel (CS), Type B; with minimum A60 metallic coating for exterior doors and frames.
- D. Frame Anchors: ASTM A 591, Commercial Steel (CS), 40Z coating designation; mill phosphatized.
 - 1. For anchors built into exterior walls, steel sheet complying with ASTM A 1008 or ASTM A 1011, hot-dip galvanized according to ASTM A 153, Class B.
- E. Inserts, Bolts, and Fasteners: Hot-dip galvanized according to ASTM A 153.

- F. Powder-Actuated Fasteners in Concrete: Fastener system of type suitable for application indicated, fabricated from corrosion-resistant materials, with clips or other accessory devices for attaching hollow metal frames of type indicated.
- G. Glazing: Comply with requirements in Division 8 Section "Glazing."
 - 1. Wired glass is not allowed.
 - 2. Tempered or fire-rated where required.

2.3 STANDARD HOLLOW METAL DOORS

- A. General: Provide doors of design indicated, not less than thickness indicated; fabricated with smooth surfaces, without visible joints or seams on exposed faces unless otherwise indicated. Comply with ANSI/SDI A250.8.
 - 1. Design: Flush panel.
 - 2. Core Construction: Manufacturer's standard kraft-paper honeycomb, polystyrene, polyurethane, polyisocyanurate, mineral-board, or vertical steel-stiffener core.
 - a. Standard Core: Honeycomb, U-factor of 0.69, R-value of 1.45.
 - b. Fire Door Core: As required to provide fire-protection indicated.
 - 3. Vertical Edges for Single-Acting Doors: Beveled edge.
 - a. Beveled Edge: 1/8 inch in 2 inches.
 - 4. Vertical Edges for Double-Acting Doors: Round vertical edges with 2-1/8-inch radius.
 - 5. Top and Bottom Edges: Closed with flush or inverted 0.042-inch-thick, end closures or channels of same material as face sheets.
 - 6. Tolerances: Comply with SDI 117, "Manufacturing Tolerances for Standard Steel Doors and Frames."
 - 7. Vision, Narrow Lite, Half Glass Doors: Size as indicated on Drawings.
- B. Exterior Doors: Face sheets fabricated from galvanized (metallic-coated) steel sheet. Provide doors complying with requirements indicated below by referencing ANSI/SDI A250.8 for level and model and ANSI/SDI A250.4 for physical performance level:
 - 1. Level 3 and Physical Performance Level A (Extra Heavy Duty), Model 1 (Full Flush):
 - a. Face thickness: 16 gage (0.053 inch).
 - 1) Product: Series L16 by Steelcraft.
- C. Interior Doors: Face sheets fabricated from cold-rolled steel sheet unless galvanized (metallic-coated) sheet is indicated. Provide doors complying with requirements indicated below by referencing ANSI/SDI A250.8 for level and model and ANSI/SDI A250.4 for physical performance level:
 - 1. Level 2 and Physical Performance Level B (Heavy Duty), Model 1 (Full Flush):
 - a. Face thickness: 18 gage (0.042 inch).
 - 1) Product: Series L18 by Steelcraft.
- D. Glass Doors: Face sheets fabricated from galvanized (metallic-coated) for exterior doors and cold-rolled steel sheet for interior doors. Provide doors complying with requirements indicated below by referencing ANSI/SDI A250.8 for level and model and ANSI/SDI A250.4 for physical performance level:
 - 1. Level 3 and Physical Performance Level A (Extra Heavy Duty), Model 3 (Stile and Rail):
 - a. Face Thickness: 16 gage.
 - b. Stile: 5-1/4 inch face dimensions.
 - c. Rail: 5 inch top and 12 inch bottom rail face dimensions.

1) Product: A16-Series FG by Steelcraft.

- E. Embossed Doors with Glass: Full height, polystyrene core, embossed panels, epoxy filled mechanical interlock edges with glass. Face sheets fabricated from galvanized (metallic-coated) for exterior doors and cold-rolled steel sheet for interior doors. Provide doors complying with requirements indicated below by referencing ANSI/SDI A250.8 for level and model and ANSI/SDI A250.4 for physical performance level:
 - 1. Face Thickness: 16 gage.
 - 2. Style: E2G.
 - 3. Product: CE16-Series by Steelcraft.
- F. Hardware Reinforcement: Fabricate according to ANSI/SDI A250.6 with reinforcing plates from same material as door face sheets.

2.4 STANDARD HOLLOW METAL FRAMES

- A. General: Comply with ANSI/SDI A250.8 and with details indicated for type and profile.
- B. Exterior Frames: Fabricated from metallic-coated steel sheet.
 - 1. Fabricate frames with mitered or coped corners.
 - 2. Fabricate frames as full profile welded unless otherwise indicated.
 - 3. Frame: 16 gage (0.053-inch) thick steel sheet.
 - a. Product: F16 Series by Steelcraft.
- C. Interior Frames: Fabricated from cold-rolled steel sheet.
 - 1. Fabricate frames with mitered or coped corners.
 - 2. Fabricate frames as full profile welded. Knocked down is not allowed.
 - 3. Frame: 16 gage (0.053-inch) thick steel sheet.
 - a. Product: F16 Series by Steelcraft.
 - 4. Frames for Wood Doors: Same type as for steel doors.
 - 5. Frames for Borrowed Lights: Same as adjacent door frame.
- D. Hardware Reinforcement: Fabricate according to ANSI/SDI A250.6 with reinforcement plates from same material as frames.

2.5 FRAME ANCHORS

- A. Jamb Anchors:
 - 1. Stud-Wall Type: Designed to engage stud, welded to back of frames; not less than 0.042 inch thick.
- B. Floor Anchors: Formed from same material as frames, not less than 0.042 inch thick, and as follows:
 - 1. Monolithic Concrete Slabs: Clip-type anchors, with two holes to receive fasteners.
 - 2. Separate Topping Concrete Slabs: Adjustable-type anchors with extension clips, allowing not less than 2-inch height adjustment. Terminate bottom of frames at finish floor surface.

2.6 STOPS AND MOLDINGS

- A. Moldings for Glazed Lites in Doors: Minimum 0.032 inch thick, fabricated from same material as door face sheet in which they are installed.
- B. Fixed Frame Moldings: Formed integral with hollow metal frames, a minimum of 5/8 inch high unless otherwise indicated.
- C. Loose Stops for Glazed Lites in Frames: Minimum 0.032 inch thick, fabricated from same material as frames in which they are installed.

2.7 LOUVERS

- A. Provide louvers for doors, where indicated, that comply with SDI 111C.
 - 1. Inserted Louver:
 - a. 18 gage steel, welded to fabricated sub-frame.
 - b. 1 inch thick, inverted "Y" blade type, inserted into opening prepared in door faces.
 - c. Free air space: 50% of louver area.
 - 2. Transom Louver:
 - a. Comply with requirements of Division 10 "Louvers and Vents".
 - 3. Stile and Rail Full Louvered Doors: Provide doors complying with requirements indicated below by referencing ANSI/SDI A250.8 for level and model and ANSI/SDI A250.4 for physical performance level:
 - a. Face sheets fabricated from galvanized (metallic-coated) for doors.
 - b. Level 3 and Physical Performance Level A (Extra Heavy Duty), Model 3 (Stile and Rail):
 - 1) Face Thickness: 16 gage.
 - 2) Stile: 5-1/4 inch face dimensions.
 - 3) Rail: 5 inch top and 12 inch bottom rail face dimensions.
 - a) Product: A16-Series FG by Steelcraft.

2.8 ACCESSORIES

- A. Mullions and Transom Bars: Join to adjacent members by welding or rigid mechanical anchors.
- B. Ceiling Struts: Minimum 1/4-inch-thick by 1-inch- wide steel.
- C. Provide Screw-In Top Cap for exterior doors.

2.9 FABRICATION

- A. Fabricate hollow metal work to be rigid and free of defects, warp, or buckle. Accurately form metal to required sizes and profiles, with minimum radius for thickness of metal. Where practical, fit and assemble units in manufacturer's plant. To ensure proper assembly at Project site, clearly identify work that cannot be permanently factory assembled before shipment.
- B. Tolerances:

1. Standard doors and frames: Fabricate hollow metal work to tolerances indicated in SDI 117.
- C. Hollow Metal Doors:
 1. Exterior Doors: Provide weep-hole openings in bottom of exterior doors to permit moisture to escape. Seal joints in top edges of doors against water penetration.
 2. Glazed Lites: Factory cut openings in doors.
 3. Astragals: Provide overlapping astragal on one leaf of pairs of doors where required by CBC 715 and NFPA 80 for fire-performance rating or where indicated. Extend minimum 3/4 inch beyond edge of door on which astragal is mounted.
- D. Hollow Metal Frames: Where frames are fabricated in sections due to shipping or handling limitations, provide alignment plates or angles at each joint, fabricated of same thickness metal as frames.
 1. Welded Frames: Weld flush face joints continuously; grind, fill, dress, and make smooth, flush, and invisible.
 2. Sidelight Frames: Provide closed tubular members with no visible face seams or joints, fabricated from same material as door frame. Fasten members at crossings and to jambs by butt welding.
 3. Provide countersunk, flat- or oval-head exposed screws and bolts for exposed fasteners unless otherwise indicated.
 4. Grout Guards: Weld guards to frame at back of hardware mortises in frames to be grouted.
 5. Floor Anchors: Weld anchors to bottom of jambs and mullions with at least four spot welds per anchor.
 6. Jamb Anchors: Provide number and spacing of anchors as follows:
 - a. Stud-Wall Type: Locate anchors not more than 18 inches from top and bottom of frame. Space anchors not more than 32 inches o.c. and as follows:
 - 1) Three anchors per jamb up to 60 inches high.
 - 2) Four anchors per jamb from 60 to 90 inches high.
 - 3) Five anchors per jamb from 90 to 96 inches high.
 - 4) Five anchors per jamb plus 1 additional anchor per jamb for each 24 inches or fraction thereof above 96 inches high.
 - 5) Two anchors per head for frames above 42 inches wide and mounted in metal-stud partitions.
 - b. Compression Type: Not less than two anchors in each jamb.
 - c. Postinstalled Expansion Type: Locate anchors not more than 6 inches from top and bottom of frame. Space anchors not more than 26 inches o.c.
 7. Door Silencers: Except on weather-stripped doors, drill stops to receive door silencers as follows.
 - a. Single-Door Frames: Drill stop in strike jamb to receive three door silencers.
 - b. Double-Door Frames: Drill stop in head jamb to receive two door silencers.
- E. Fabricate concealed stiffeners, edge channels, and hardware reinforcement from either cold- or hot-rolled steel sheet.
- F. Hardware Preparation: Factory prepare hollow metal work to receive templated mortised hardware; include cutouts, reinforcement, mortising, drilling, and tapping according to the Door Hardware Schedule and templates furnished as specified in Division 8 Section "Door Hardware."
 1. Locate hardware as indicated, or if not indicated, according to ANSI/SDI A250.8.
 2. Reinforce doors and frames to receive nontemplated, mortised and surface-mounted door hardware.

3. Comply with applicable requirements in ANSI/SDI A250.6 and ANSI/DHI A115 Series specifications for preparation of hollow metal work for hardware.
- G. Stops and Moldings: Provide stops and moldings around glazed lites where indicated. Form corners of stops and moldings with butted or mitered hairline joints.
1. Single Glazed Lites: Provide fixed stops and moldings welded on secure side of hollow metal work.
 2. Multiple Glazed Lites: Provide fixed and removable stops and moldings so that each glazed lite is capable of being removed independently.
 3. Provide fixed frame moldings on outside of exterior and on secure side of interior doors and frames.
 4. Provide loose stops and moldings on inside of hollow metal work.
 5. Coordinate rabbet width between fixed and removable stops with type of glazing and type of installation indicated.
- H. Air Infiltration: Maximum rate not more than indicated when tested according to AAMA/WDMA 101/I.S.2/NAFS, Air Infiltration Test.
1. Maximum Rate: 0.3 cfm/sq. ft. of area at an inward test pressure of 1.57 lbf/sq. ft.
 2. Maximum Rate: 0.1 cfm/sq. ft. of area at an inward test pressure of 6.24 lbf/sq. ft.

2.10 STEEL FINISHES

- A. Prime Finish: Apply manufacturer's standard primer immediately after cleaning and pretreating.
1. Shop Primer: Manufacturer's standard, fast-curing, lead- and chromate-free primer complying with ANSI/SDI A250.10 acceptance criteria; recommended by primer manufacturer for substrate; compatible with substrate and field-applied coatings despite prolonged exposure.
- B. Field-Applied Paint Finish: Comply with Division 9 Section "Painting".

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
- B. Examine roughing-in for embedded and built-in anchors to verify actual locations before frame installation.
- C. For the record, prepare written report, endorsed by Installer, listing conditions detrimental to performance of the Work.
- D. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Remove welded-in shipping spreaders installed at factory. Restore exposed finish by grinding, filling, and dressing, as required to make repaired area smooth, flush, and invisible on exposed faces.
- B. Prior to installation, adjust and securely brace welded hollow metal frames for squareness, alignment, twist, and plumbness to the following tolerances:
 - 1. Squareness: Plus or minus 1/16 inch, measured at door rabbet on a line 90 degrees from jamb perpendicular to frame head.
 - 2. Alignment: Plus or minus 1/16 inch, measured at jambs on a horizontal line parallel to plane of wall.
 - 3. Twist: Plus or minus 1/16 inch, measured at opposite face corners of jambs on parallel lines, and perpendicular to plane of wall.
 - 4. Plumbness: Plus or minus 1/16 inch, measured at jambs on a perpendicular line from head to floor.
- C. Drill and tap doors and frames to receive nontemplated, mortised, and surface-mounted door hardware.

3.3 INSTALLATION

- A. General: Install hollow metal work plumb, rigid, properly aligned, and securely fastened in place; comply with Drawings and manufacturer's written instructions.
- B. Hollow Metal Frames: Install hollow metal frames of size and profile indicated. Comply with ANSI/SDI A250.11.
 - 1. Set frames accurately in position, plumbed, aligned, and braced securely until permanent anchors are set. After wall construction is complete, remove temporary braces, leaving surfaces smooth and undamaged.
 - a. At fire-protection-rated openings, install frames according to CBC 715 and NFPA 80.
 - b. Where frames are fabricated in sections because of shipping or handling limitations, field splice at approved locations by welding face joint continuously; grind, fill, dress, and make splice smooth, flush, and invisible on exposed faces.
 - c. Install frames with removable glazing stops located on secure side of opening.
 - d. Remove temporary braces necessary for installation only after frames have been properly set and secured.
 - e. Check plumbness, squareness, and twist of frames as walls are constructed. Shim as necessary to comply with installation tolerances.
 - 2. Floor Anchors: Provide floor anchors for each jamb and mullion that extends to floor, and secure with post-installed expansion anchors.
 - a. Floor anchors may be set with powder-actuated fasteners instead of postinstalled expansion anchors if so indicated and approved on Shop Drawings.
 - 3. Metal-Stud Partitions: Solidly pack mineral-fiber insulation behind frames.
 - 4. In-Place Gypsum Board Partitions: Secure frames in place with postinstalled expansion anchors through floor anchors at each jamb. Countersink anchors, and fill and make smooth, flush, and invisible on exposed faces.
 - 5. Ceiling Struts: Extend struts vertically from top of frame at each jamb to overhead structural supports or substrates above frame unless frame is anchored to masonry or to

other structural support at each jamb. Bend top of struts to provide flush contact for securing to supporting construction. Provide adjustable wedged or bolted anchorage to frame jamb members.

6. Installation Tolerances: Adjust hollow metal door frames for squareness, alignment, twist, and plumb to the following tolerances:
 - a. Squareness: Plus or minus 1/16 inch, measured at door rabbet on a line 90 degrees from jamb perpendicular to frame head.
 - b. Alignment: Plus or minus 1/16 inch, measured at jambs on a horizontal line parallel to plane of wall.
 - c. Twist: Plus or minus 1/16 inch, measured at opposite face corners of jambs on parallel lines, and perpendicular to plane of wall.
 - d. Plumbness: Plus or minus 1/16 inch, measured at jambs at floor.

C. Hollow Metal Doors: Fit hollow metal doors accurately in frames, within clearances specified below. Shim as necessary.

1. Non-Fire-Rated Standard Steel Doors:
 - a. Jambs and Head: 1/8 inch plus or minus 1/16 inch.
 - b. Between Edges of Pairs of Doors: 1/8 inch plus or minus 1/16 inch.
 - c. Between Bottom of Door and Top of Threshold: Maximum 3/8 inch.
 - d. Between Bottom of Door and Top of Finish Floor (No Threshold): Maximum 3/4 inch.
2. Fire-Rated Doors: Install doors with clearances according to CBC 715 and NFPA 80.
3. Smoke-Control Doors: Install doors according to UBC Standard 7-2.

D. Glazing: Comply with installation requirements in Division 8 Section "Glazing" and with hollow metal manufacturer's written instructions.

1. Secure stops with countersunk flat- or oval-head machine screws spaced uniformly not more than 9 inches o.c. and not more than 2 inches o.c. from each corner.

3.4 ADJUSTING AND CLEANING

- A. Final Adjustments: Check and readjust operating hardware items immediately before final inspection. Leave work in complete and proper operating condition. Remove and replace defective work, including hollow metal work that is warped, bowed, or otherwise unacceptable.
- B. Remove grout and other bonding material from hollow metal work immediately after installation.
- C. Prime-Coat Touchup: Immediately after erection, sand smooth rusted or damaged areas of prime coat and apply touchup of compatible air-drying, rust-inhibitive primer.
- D. Metallic-Coated Surfaces: Clean abraded areas and repair with galvanizing repair paint according to manufacturer's written instructions.

END OF SECTION 081113

SECTION 081416 - FLUSH WOOD DOORS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes solid-core doors.
- B. Related Sections include the following:
 - 1. Division 9 Section "Painting" for field painting of doors.

1.3 SUBMITTALS

- A. Product Data: For each type of door. Include details of core and edge construction, louvers, and trim for openings.
- B. Other Action Submittals:
 - 1. Schedule: Provide a schedule of flush wood door work prepared by or under the supervision of supplier, using same reference numbers for details and openings as those on Drawings. Coordinate with door hardware schedule.
 - a. Indicate location, size, and hand of each door; elevation of each kind of door; construction details not covered in Product Data; location and extent of hardware blocking; and other pertinent data.
 - b. Indicated specific model number of door and frame.
 - c. Indicated hardware group.
 - d. Indicate dimensions and locations of mortises and holes for hardware.
 - e. Indicate dimensions and locations of cutouts.
 - f. Indicate fire ratings for fire doors.
- C. Schedule: Provide a schedule of flush wood door work prepared by or under the supervision of supplier, using same reference numbers for details and openings as those on Drawings. Coordinate with door hardware schedule.
 - 1. Indicate location, size, and hand of each door; elevation of each kind of door; construction details not covered in Product Data; location and extent of hardware blocking; and other pertinent data.
 - 2. Indicated specific model number of door and frame.
 - 3. Indicated hardware group.
 - 4. Indicate dimensions and locations of mortises and holes for hardware.
 - 5. Indicate dimensions and locations of cutouts.

- D. Samples for Initial Selection: Color charts consisting of actual materials in small sections for Samples for Verification:

1.4 QUALITY ASSURANCE

- A. Source Limitations: Obtain flush wood doors through one source from a single manufacturer.
- B. Quality Standard: Comply with NWWDA I.S.1-A, "Architectural Wood Flush Doors."
 - 1. Performance duty Level: Extra Heavy Duty.
 - 2. Factory machined for door hardware and high density hardware blocking.
- C. Fire-Rated Wood Doors: Doors complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire ratings indicated, based on testing according to CBC Section 715.
 - 1. Oversize, Fire-Rated Wood Doors: For door assemblies exceeding sizes of tested assemblies, provide oversize fire door label or certificate of inspection, from a testing and inspecting agency acceptable to authorities having jurisdiction, stating that doors comply with requirements of design, materials, and construction.
 - 2. Temperature-Rise Rating: At exit enclosures, provide doors that have a temperature-rise rating of 450 deg F maximum in 30 minutes of fire exposure.
- D. Preinstallation Conference: Conduct conference at Project site.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Comply with requirements of referenced standard and manufacturer's written instructions.
- B. Mark each door on top and bottom rail with opening number used on Shop Drawings.

1.6 PROJECT CONDITIONS

- A. Environmental Limitations: Do not deliver or install doors until building is enclosed, wet work is complete, and HVAC system is operating and will maintain temperature and relative humidity at occupancy levels during the remainder of the construction period.

1.7 WARRANTY

- A. Special Warranty: Manufacturer's standard form, signed by manufacturer, Installer, and Contractor, in which manufacturer agrees to repair or replace doors that are defective in materials or workmanship, have warped (bow, cup, or twist) more than 1/4 inch top to bottom, or show telegraphing of core construction in face veneers exceeding 0.01 inch in a 3-inch span.
 - 1. Warranty shall also include installation and finishing that may be required due to repair or replacement of defective doors.
 - 2. Warranty:
 - a. Solid-Core Interior Doors: Life of installation.
- B. Installer's Warranty: 1 year.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Flush Wood Doors: Subject to compliance with requirements, provide either the named product or an equal product by one of the other manufacturers specified.
 - 1. Signature Series by Marshfield Door Systems. (Basis of Design)
 - 2. Algoma Hardwoods Inc.
 - 3. Eggers Industries; Architectural Door Division.
 - 4. Maiman Company.
 - 5. Marlite.
 - 6. VT Industries Inc.
 - 7. Haley Brothers, Inc.
 - 8. Or equal.

2.2 DOOR CONSTRUCTION, GENERAL

- A. Adhesives: Do not use adhesives containing urea formaldehyde.
- B. Doors for Opaque Finish:
 - 1. Grade: Custom.
 - 2. Faces for Exterior Doors: Medium-density overlay.
 - 3. Faces for Interior Doors: Medium-density overlay.
 - 4. Apply medium-density overlay to standard thickness, closed-grain, hardwood face veneers or directly to high-density hardboard crossbands.

2.3 SOLID-CORE DOORS

- A. Core:
 - 1. Structural-Composite-Lumber-Core: WDMA I.S.10.
 - a. Screw Withdrawal, Face: 700 lbf.
 - b. Screw Withdrawal, Edge: 400 lbf.
 - 2. Fire-Resistant Composite Core.
- B. Doors:
 - 1. Construction: Five or seven plies with stiles and rails bonded to core, then entire unit abrasive planed before veneering.
- C. Hardboard-Faced Doors:
 - 1. Construction: Three plies with stiles and rails bonded to core, then entire unit abrasive planed before faces are applied.
- D. Fire-Rated Doors:
 - 1. Construction: Construction and core specified above for type of face indicated or manufacturer's standard mineral-core construction as needed to provide fire rating indicated.

2. Blocking: For mineral-core doors, provide composite blocking with improved screw-holding capability approved for use in doors of fire ratings indicated as needed to eliminate through-bolting hardware.
3. Edge Construction: At hinge stiles, provide manufacturer's standard laminated-edge construction with improved screw-holding capability and split resistance and with outer stile matching face veneer.

2.4 FABRICATION

- A. Fabricate doors in sizes indicated for Project-site fitting.
- B. Factory machine doors for hardware that is not surface applied. Locate hardware to comply with DHI-WDHS-3. Comply with final hardware schedules, door frame Shop Drawings, DHI A115-W series standards, and hardware templates.
 1. Coordinate measurements of hardware mortises in metal frames to verify dimensions and alignment before factory machining.

2.5 SHOP PRIMING

- A. Doors for Opaque Finish: Shop prime faces and edges of doors, including cutouts, with one coat of wood primer specified in Division 9 Section "Painting."

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine doors and installed door frames before hanging doors.
 1. Verify that frames comply with indicated requirements for type, size, location, and swing characteristics and have been installed with level heads and plumb jambs.
 2. Reject doors with defects.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Hardware: For installation, see Division 8 Section "Door Hardware."
- B. Manufacturer's Written Instructions: Install doors to comply with manufacturer's written instructions, referenced quality standard, and as indicated.
- C. Job-Fitted Doors: Align and fit doors in frames with uniform clearances and bevels as indicated below; do not trim stiles and rails in excess of limits set by manufacturer or permitted for fire-rated doors. Machine doors for hardware. Seal cut surfaces after fitting and machining.
 1. Clearances: Provide 1/8 inch at heads, jambs, and between pairs of doors. Provide 1/8 inch from bottom of door to top of decorative floor finish or covering. Where threshold is shown or scheduled, provide 1/4 inch from bottom of door to top of threshold.

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2. Bevel non-fire-rated doors 1/8 inch in 2 inches at lock and hinge edges.
- D. Field-Finished Doors: Refer to the following for finishing requirements:
1. Division 9 Section "Painting."

3.3 ADJUSTING

- A. Operation: Rehang or replace doors that do not swing or operate freely.
- B. Finished Doors: Replace doors that are damaged or do not comply with requirements. Doors may be repaired or refinished if work complies with requirements and shows no evidence of repair or refinishing.

END OF SECTION 081416

SECTION 083113 - ACCESS DOORS AND FRAMES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Access doors and frames for walls and ceilings.
- B. Related Sections include the following:
 - 1. Division 9 Section "Painting" for field applied finishes.

1.3 SUBMITTALS

- A. Product Data: For each type of access door and frame indicated. Include construction details, fire ratings, materials, individual components and profiles, and finishes.
- B. Shop Drawings: Show fabrication and installation details of access doors and frames for each type of substrate. Include plans, elevations, sections, details, and attachments to other work.
- C. Samples: For each door face material, at least 3 by 5 inches in size, in specified finish.
- D. Access Door and Frame Schedule: Provide complete access door and frame schedule, including types, locations, sizes, latching or locking provisions, and other data pertinent to installation.

1.4 QUALITY ASSURANCE

- A. Source Limitations: Obtain each type of access door(s) and frame(s) through one source from a single manufacturer.
- B. Fire-Rated Access Doors and Frames: Units complying with NFPA 80 that are identical to access door and frame assemblies tested for fire-test-response characteristics per the following test method and that are listed and labeled by UL. Comply with CBC Section 715.4
 - 1. NFPA 252 or UL 10B for vertical access doors and frames.
 - 2. ASTM E 119 or UL 263 for horizontal access doors and frames.
- C. Size Variations: Obtain Architect's acceptance of manufacturer's standard-size units, which may vary slightly from sizes indicated.

1.5 COORDINATION

- A. Verification: Determine specific locations and sizes for access doors needed to gain access to concealed plumbing, mechanical, or other concealed work, and indicate in the schedule specified in "Submittals" Article.

1.6 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of access doors and frames that fails in materials or workmanship within specified warranty period.
 - 1. Failures include, but are not limited to, the following:
 - a. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
 - 2. Warranty Period: 2 years.
- B. Installer's Warranty: 1 year.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Access Doors and Frames: Subject to compliance with requirements, provide products by one of the following:
 - 1. Karp Associates Inc. (Basis of Design)
 - 2. Acudor.
 - 3. Milcor Inc.
 - 4. Nystrom, Inc.
 - 5. MIFAB.
 - 6. Or equal.

2.2 STEEL MATERIALS

- A. Steel Plates, Shapes, and Bars: ASTM A 36.
 - 1. ASTM A 123, for galvanizing steel and iron products.
 - 2. ASTM A 153, for galvanizing steel and iron hardware.
- B. Steel Sheet: Cold-rolled steel sheet substrate complying with ASTM A 1008, Commercial Steel (CS), exposed.
- C. Steel Finishes: Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
 - 1. Factory Surface Preparation for Steel Sheet: Clean surfaces to comply with SSPC-SP 1, "Solvent Cleaning," to remove dirt, oil, grease, or other contaminants that could impair paint bond. Remove mill scale and rust, if present, from uncoated steel, complying with SSPC-SP 5/NACE No. 1, "White Metal Blast Cleaning," or SSPC-SP 8, "Pickling."
 - 2. Field Finish: Factory prime for field painting as specified in Division 9 "Painting".

- D. Drywall Beads: Edge trim formed from 0.0299-inch zinc-coated steel sheet formed to receive joint compound and in size to suit thickness of gypsum board.

2.3 ACCESS DOORS AND FRAMES FOR WALLS AND CEILINGS

- A. Recessed Door to Receive Drywall Type:
 - 1. Fire-Rated: Model 450FR by Karp.
 - 2. Non-Fire-Rated: Model RDW by Karp.
 - 3. Frame shall be 14 gage steel and doors shall be 16 gage steel.
 - 4. Door shall be recessed 1 inch.
 - 5. Trim shall be galvanized steel dry wall bead.
 - 6. Hinge shall be concealed pivoting rod type.
 - 7. Locks shall be flush and screwdriver operated with stainless steel cam and studs, or shall be key operated cylinder lock with automatic dust shutter.
 - 8. Finish shall be prime coat of rust inhibitive electrostatic powder, baked grey coat.
 - 9. Door Sizes: As indicated on Drawings.
 - 10. Field Finish: Comply with Division 9 Section "Painting".
- B. Flange Type:
 - 1. Fire-Rated: Model KRP-250 by Karp.
 - 2. Non-Fire-Rated: Model DSC-214M by Karp.
 - 3. Frame shall be 14 gage steel and doors shall be 16 gage steel.
 - 4. Flange: One-piece construction, 3/4 inch wide.
 - 5. Hinge shall be concealed continuous piano hinge.
 - 6. Locks shall be flush and screwdriver operated with stainless steel cam and studs, or shall be key operated cylinder lock with automatic dust shutter.
 - 7. Finish shall be prime coat of rust inhibitive electrostatic powder, baked grey coat.
 - 8. Door Sizes: As indicated on Drawings.
 - 9. Field Finish: Comply with Division 9 Section "Painting".

2.4 FABRICATION

- A. General: Provide access door and frame assemblies manufactured as integral units ready for installation.
- B. Metal Surfaces: For metal surfaces exposed to view in the completed Work, provide materials with smooth, flat surfaces without blemishes. Do not use materials with exposed pitting, seam marks, roller marks, rolled trade names, or roughness.
- C. Doors and Frames: Grind exposed welds smooth and flush with adjacent surfaces. Furnish attachment devices and fasteners of type required to secure access panels to types of supports indicated.
 - 1. Exposed Flanges: Nominal 1 to 1-1/2 inches wide around perimeter of frame.
- D. Latching Mechanisms: Furnish number required to hold doors in flush, smooth plane when closed.
 - 1. For cylinder lock, furnish two keys per lock and key all locks alike to match existing.

2.5 FINISHES

- A. Field finish per Division 9 Section "Painting".

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Comply with manufacturer's written instructions for installing access doors and frames.
- B. Install doors flush with adjacent finish surfaces or recessed to receive finish material.

3.2 ADJUSTING AND CLEANING

- A. Adjust doors and hardware after installation for proper operation.
- B. Remove and replace doors and frames that are warped, bowed, or otherwise damaged.

END OF SECTION 083113

SECTION 083613 – SECTIONAL DOORS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes:
 - 1. Sectional doors.
- B. Related Sections include the following:
 - 1. Division 5 Section "Metal Fabrications" for miscellaneous steel supports.

1.3 SUBMITTALS

- A. Product Data: For each type and size of door and accessory.
 - 1. Preparation instructions and recommendations.
 - 2. Storage and handling requirements and recommendations.
 - 3. Installation methods.
- B. Shop Drawings: Indicate plans and elevations including opening dimensions and required tolerances, connection details, anchorage spacing, hardware locations, and installation details.
- C. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.
- D. Verification Samples: For each finish product specified, two samples, minimum size 6 inches (150 mm) square, representing actual product, color, and patterns.
- E. Manufacturer's Certificates: Certify products meet or exceed specified requirements.
- F. Operation and Maintenance Data.

1.4 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with minimum five years documented experience.
- B. Installer Qualifications: Authorized representative of the manufacturer with minimum five years documented experience.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened labeled packaging until ready for installation.
- B. Protect materials from exposure to moisture until ready for installation.
- C. Store materials in a dry, ventilated weathertight location.
- D. Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.

1.6 WARRANTY

- A. Limited lifetime against splitting and cracking, 5 year against delamination of polyurethane foam from steel face and all other components for 1 year.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Sectional Doors: Subject to compliance with requirements, provide either the named product or an equal product by one of the other manufacturers specified.
 - 1. Overhead Door Corp. (Basis of Design).
 - 2. CHI.
 - 3. Cornell Iron Works Inc.
 - 4. Cookson Company
 - 5. Or equal.

2.2 GLAZED ALUMINUM SECTIONAL OVERHEAD DOORS

- A. Product: 511 Series Aluminum Doors by Overhead Door Corporation or equal.
 - 1. Door Assembly: Stile and rail assembly secured with 1/4 inch diameter through rods.
 - a. Panel Thickness: 1-3/4 inches.
 - b. Center Stile Width: 21/32 inch.
 - c. End Stile Width: 2-3/4 inches.
 - d. Intermediate Rail Pair Width: 1-3/8 inches.
 - e. Top Rail Width:
 - 1) 3-3/4 inches.
 - f. Bottom Rail Width:
 - 1) 4-1/2 inches.
 - g. Aluminum Panels: 0.050 inch thick, aluminum.
 - h. Stiles and Rails: 6063 - T6 aluminum.
 - i. Springs: 100,000 cycles.
 - j. Glazing: Insulated, as indicated on Drawings.
 - 2. Finish and Color:
 - a. Anodized Finish: Clear anodized.

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3. Hardware: Galvanized steel hinges and fixtures. Ball bearing rollers with hardened steel races.
4. Lock: Interior galvanized single unit.
5. Weatherstripping:
 - a. Flexible bulb-type strip at bottom section.
 - b. Flexible Jamb seals.
 - c. Flexible Header seal.
6. Track: Provide track as recommended by manufacturer to suit loading required and clearances available.
7. Operation: Manual chain.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Do not begin installation until openings and substrates have been properly prepared.
- B. Verify wall openings are ready to receive work and opening dimensions and tolerances are within specified limits.
- C. If preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.2 PREPARATION

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.3 INSTALLATION

- A. Install overhead doors, track and openers in accordance with approved shop drawings and the manufacturer's printed instructions.
- B. Coordinate installation with adjacent work to ensure proper clearances and allow for maintenance.
- C. Anchor assembly to wall construction and building framing without distortion or stress.
- D. Securely brace door tracks suspended from structure. Secure tracks to structural members only.
- E. Fit and align door assembly including hardware.

3.4 CLEANING AND ADJUSTING

- A. Adjust door assembly to smooth operation and in full contact with weatherstripping.

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Construction Documents

- B. Clean doors, frames and glass.
- C. Remove temporary labels and visible markings.

3.5 PROTECTION

- A. Do not permit construction traffic through overhead door openings after adjustment and cleaning.
- B. Protect installed products until completion of project.
- C. Touch-up, damaged coatings and finishes and repair minor damage before Substantial Completion.

END OF SECTION 083613

SECTION 092216 - NON-LOAD-BEARING STEEL FRAMING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes non-load-bearing steel framing members for the following applications:
 - 1. Interior framing systems (e.g., supports for partition walls, framed soffits, furring, etc.).
 - 2. Interior suspension systems (e.g., supports for ceilings, suspended soffits, etc.).
- B. Related Sections include the following:
 - 1. Division 7 Section "Building Insulation" for insulation installed with Z-shaped furring members.
 - 2. Division 7 Section "Fire-Resistive Joint Systems" for head-of-wall joint systems installed with non-load-bearing steel framing.
 - 3. Division 9 Section "Portland Cement Plaster" for metal lath supported by non-load-bearing steel framing.

1.3 SUBMITTALS

- A. Product Data: For each type of product.
- B. Deflection track: List location of use.
- C. Certification of Materials: For steel framing materials.
- D. Test Compliance: All products used in or installed Head-of-Wall assemblies must be approved for use within the same approved agency test assembly or else written documentation product approval by the State Marshal will be required that allows the product (s) to be installed with the conditions stated in said test assembly.

1.4 QUALITY ASSURANCE

- A. Fire-Test-Response Characteristics: For fire-resistance-rated assemblies that incorporate non-load-bearing steel framing, provide materials and construction identical to those tested in assembly indicated according to ASTM E 119 by an independent testing agency.
- B. STC-Rated Assemblies: For STC-rated assemblies, provide materials and construction identical to those tested in assembly indicated according to ASTM E 90 and classified according to ASTM E 413 by an independent testing agency.

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Construction Documents

- C. Construction Standards: Construction not on Drawings or referenced shall be as detailed in Technical Library by SSMA Technical Services.
- D. Deflection Limits: Maximum deflection of following at 5 psf.
 - 1. Gypsum board assemblies: L/240.
 - 2. Ceramic tile: L/360.

1.5 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of non-load bearing steel framing that fails in materials or workmanship within specified warranty period.
 - 1. Failures include, but are not limited to, the following:
 - a. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
 - 2. Warranty Period: 1 year.
- B. Installer's Warranty: 1 year.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Non-Load-Bearing Steel Framing: Subject to compliance with requirements, provide products by one of the following manufacturers.
 - 1. California Expanded Metal Products Company (CEMCO).
 - 2. Clark Dietrich.
 - 3. Consolidated Systems, Inc.
 - 4. Dale/Incor.
 - 5. Unimast, Inc.
 - 6. Western Metal Lath & Steel Framing Systems.
 - 7. Or equal.

2.2 NON-LOAD-BEARING STEEL FRAMING, GENERAL

- A. Framing Members, General: Comply with ASTM C 754 for conditions indicated.
 - 1. Steel Sheet Components: Comply with ASTM C 645 requirements for metal, unless otherwise indicated.
 - 2. Protective Coating: ASTM A 653, G40, hot-dip galvanized zinc coating, unless otherwise indicated.

2.3 SUSPENSION SYSTEM COMPONENTS

- A. Tie Wire: ASTM A 641, Class 1 zinc coating, soft temper, 18 gage minimum.
- B. Wire Hangers: Provide wires complying with the following requirements:

1. Zinc-Coated, Carbon-Steel Wire: ASTM A 641, Class 1 zinc coating, soft temper.
 2. Size: Select wire diameter so its stress at 3 times hanger design load (ASTM C 635, Table 1, "Direct Hung") will be less than yield stress of wire, but provide not less than 0.106 inch (12 gage) diameter.
- C. Carrying Channels: Cold-rolled, commercial-steel sheet with a base-metal thickness of 0.0538 inch (16 gage) and minimum 1/2-inch- wide flanges.
1. Depth: As indicated on Drawings, but not less than 1-1/2 inch.
- D. Hat-Shaped, Rigid Furring Channels: ASTM C 645.
1. Depth: As indicated on Drawings.
 2. Minimum Base Metal Thickness: As indicated on Drawings, but not less than 0.0296 thick (20 gage).

2.4 STEEL FRAMING FOR FRAMED ASSEMBLIES

- A. Steel Studs and Runners: ASTM C 645; of size and properties necessary to comply with ASTM C 754 for the spacing indicated.
1. Minimum Base-Metal Thickness: As indicated on Drawings.
 2. Depth: As indicated on Drawings
- B. Head tracks and sill tracks shall be one gauge heavier than wall stud gauges specified in drawings.
- C. Slip-Type Head Joints:
1. Deflection Track: Steel sheet top runner manufactured to prevent cracking of finishes applied to interior partition framing resulting from deflection of structure above; in thickness not less than indicated for studs and in width to accommodate depth of studs.
 - a. Products: Subject to compliance with requirements, provide one of the following:
 - 1) CEMCO Slotted Track (CST) by CEMCO.
 - 2) VertiTrack VTD by Steel Network Inc.
 - 3) Superior Flex Track System (SFT) by Superior Metal Trim.
 - 4) Sliptrack by Dietrich Industries.
 - 5) Or equal.
- D. Flat Strap and Backing Plate: Steel sheet for blocking and bracing in length and width indicated.
1. Minimum Base-Metal Thickness: As indicated on Drawings, but not less than 0.0179 inch (25 gage).
- E. Cold-Rolled Channel Bridging: 0.0538-inch (16 gage) bare-steel thickness, with minimum 1/2-inch- wide flanges.
1. Depth: As indicated on Drawings.
 2. Clip Angle: Not less than 1-1/2 by 1-1/2 inches, 0.068-inch- thick, galvanized steel.
- F. Hat-Shaped, Rigid Furring Channels: ASTM C 645.
1. Depth: As indicated on Drawings.
 2. Minimum Base Metal Thickness: As indicated on Drawings, but not less than 0.0296 thick (20 gage).
- G. Resilient Furring Channels: 1/2-inch deep members designed to reduce sound transmission.
1. Resilient Channel:

- a. Leg Configuration: 2-1/2 inch.
 - b. Minimum Base Metal Thickness: As indicated on Drawings, but not less than 0.022 thick (22 gage).
- H. Cold-Rolled Furring Channels: 0.0538-inch bare-steel thickness (16 gage), with minimum 1/2-inch-wide flanges.
1. Depth: As indicated on Drawings.
 2. Furring Brackets: Adjustable, corrugated-edge type of steel sheet with minimum bare-steel thickness of 0.0312 inch (20 gage).
- I. Z-Shaped Furring: With slotted or nonslotted web, face flange of 1-1/4 inches, wall attachment flange of 7/8 inch, thickness as indicated but not less than bare-metal thickness of 0.0179 inch (25 gage), and depth required to fit insulation thickness indicated.
1. Size: As indicated on Drawings.

2.5 AUXILIARY MATERIALS

- A. General: Provide auxiliary materials that comply with referenced installation standards.
1. Fasteners for Metal Framing: Of type, material, size, corrosion resistance, holding power, and other properties required to fasten steel members to substrates.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas and substrates, with Installer present, and including welded hollow-metal frames, cast-in anchors, and structural framing, for compliance with requirements and other conditions affecting performance.
1. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION, GENERAL

- A. Installation Standard: ASTM C 754.
1. Portland Cement Plaster Assemblies: Also comply with requirements in ASTM C 1063 that apply to framing installation.
 2. Gypsum Board Assemblies: Also comply with requirements in ASTM C 840 that apply to framing installation.
- B. Install supplementary framing, and blocking to support fixtures, equipment services, heavy trim, grab bars, toilet accessories, furnishings, or similar construction.
- C. Install bracing at terminations in assemblies.
- D. Do not bridge building control and expansion joints with non-load-bearing steel framing members. Frame both sides of joints independently.

3.3 INSTALLING SUSPENSION SYSTEMS

- A. Install suspension system components in sizes and spacings indicated on Drawings, but not less than those required by referenced installation standards for assembly types and other assembly components indicated.
- B. Isolate suspension systems from building structure where they abut or are penetrated by building structure to prevent transfer of loading imposed by structural movement.
- C. Suspend hangers from building structure as follows:
 - 1. Install hangers plumb and free from contact with insulation or other objects within ceiling plenum that are not part of supporting structural or suspension system.
 - a. Splay hangers only where required to miss obstructions and offset resulting horizontal forces by bracing, countersplaying, or other equally effective means.
 - 2. Where width of ducts and other construction within ceiling plenum produces hanger spacings that interfere with locations of hangers required to support standard suspension system members, install supplemental suspension members and hangers in the form of trapezes or equivalent devices.
 - a. Size supplemental suspension members and hangers to support ceiling loads within performance limits established by referenced installation standards.
 - 3. Wire Hangers: Secure by looping and wire tying, either directly to structures or to inserts, eye screws, or other devices and fasteners that are secure and appropriate for substrate, and in a manner that will not cause hangers to deteriorate or otherwise fail.
 - 4. Flat Hangers: Secure to structure, including intermediate framing members, by attaching to inserts, eye screws, or other devices and fasteners that are secure and appropriate for structure and hanger, and in a manner that will not cause hangers to deteriorate or otherwise fail.
 - 5. Do not attach hangers to permanent metal forms. Furnish cast-in-place hanger inserts that extend through forms.
 - 6. Do not attach hangers to rolled-in hanger tabs of composite steel floor deck.
 - 7. Do not connect or suspend steel framing from ducts, pipes, or conduit.
- D. Fire-Resistance-Rated Assemblies: Wire tie furring channels to supports.
- E. Seismic Bracing: Sway-brace suspension systems with hangers used for support.
- F. Installation Tolerances: Install suspension systems that are level to within 1/8 inch in 12 feet measured lengthwise on each member that will receive finishes and transversely between parallel members that will receive finishes.

3.4 INSTALLING FRAMED ASSEMBLIES

- A. Install studs so flanges within framing system point in same direction.
- B. Install tracks (runners) at floors and overhead supports. Extend framing full height to structural supports or substrates above suspended ceilings, except where partitions are indicated to terminate at suspended ceilings. Continue framing around ducts penetrating partitions above ceiling.
 - 1. Slip-Type Head Joints: Where framing extends to overhead structural supports, install to produce joints at tops of framing systems that prevent axial loading of finished assemblies.

2. Door Openings: Screw vertical studs at jambs to jamb anchor clips on door frames; install runner track section (for cripple studs) at head and secure to jamb studs.
 - a. Install two studs at each jamb, unless otherwise indicated.
 - b. Install cripple studs at head adjacent to each jamb stud, with a minimum 1/2-inch clearance from jamb stud to allow for installation of control joint in finished assembly.
 - c. Extend jamb studs through suspended ceilings and attach to underside of overhead structure.
 3. Other Framed Openings: Frame openings other than door openings the same as required for door openings, unless otherwise indicated. Install framing below sills of openings to match framing required above door heads.
 4. Fire-Resistance-Rated Partitions: Install framing to comply with fire-resistance-rated assembly indicated and support closures and to make partitions continuous from floor to underside of solid structure.
- C. Z-Furring Members:
1. Erect insulation (specified in Division 7 Section "Building Insulation") vertically and hold in place with Z-furring members spaced 24 inches o.c.
 2. Except at exterior corners, securely attach narrow flanges of furring members to wall with concrete stub nails, screws designed for masonry attachment, or powder-driven fasteners spaced 24 inches o.c.
 3. At exterior corners, attach wide flange of furring members to wall with short flange extending beyond corner; on adjacent wall surface, screw-attach short flange of furring channel to web of attached channel. At interior corners, space second member no more than 12 inches from corner and cut insulation to fit.
- D. Installation Tolerance: Install each framing member so fastening surfaces vary not more than 1/8 inch from the plane formed by faces of adjacent framing.

END OF SECTION 092216

SECTION 092400 - PORTLAND CEMENT PLASTERING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Exterior three-coat portland cement plasterwork (stucco) on metal lath system.
 - 2. Soffit.
 - 3. Integral colored finish coat.
- B. Related Sections include the following:
 - 1. Division 7 Section "Building Insulation" for thermal insulations included in portland cement plaster assemblies.
 - 2. Division 7 Section "Flexible Sheet Flashing" for flashing windows, door, and other openings.
 - 3. Division 7 Section "Joint Sealants" for acoustical sealants and sealants installed with exterior portland cement plaster (stucco).

1.3 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Shop Drawings:
 - 1. Showing details of construction for framing, reinforcement, and trims; including locations where each type material, mix, coating thickness, material sizes and thicknesses, and fastenings will be used.
 - 2. Show locations and installation of control and expansion joints including plans, elevations, sections, details of components, and attachments to other work.
 - 3. Include details of penetration and termination, flashing details, joint locations and configurations, fastening and anchorage details including mechanical fasteners, and connections to other work.
 - 4. Show locations and extent of weather-barrier (building paper and flashing sheet). Include details for substrate joints and cracks, counterflashing strip, penetrations, inside and outside corners, terminations, and tie-ins with adjoining construction.
 - a. Include details of interfaces with other materials that form part of weather barrier.
 - b. Include details of mockups.
- C. Coordination Drawings:
 - 1. Comprehensive, completely integrated set of plans, sections, elevations, and details, drawn to scale, of separate trades work, indicating interface support/connections, and

relationships between materials, and products, on which the following items are shown and coordinated with each other, based on input from fabricators and installers of the items involved:

- a. Framing, including backing, blocking, strapping, and similar accessory/sub-framing materials.
 - b. Sheathing, including building paper.
 - c. Portland cement plaster, including trim and self-adhering flashing sheet.
 - d. Other materials and products that occur in, on, adjacent to, or contiguous with above work.
2. At a minimum, indicate the following
- a. Locations/spacing of plaster trim moldings.
 - b. Locations/dimensions of self-adhering flashing sheet (underlying trim moldings).
 - c. Locations/spacings of connections/fastenings of:
 - 1) Sheathing
 - 2) Metal lath.
 - 3) Plaster trim moldings
 - d. Sequence of installation of:
 - 1) Building paper.
 - 2) Flexible flashing.
 - 3) Metal lath, and plaster trim moldings.
- D. Samples for Initial Selection: For each type of factory-prepared finish coat indicated with texture and color.
- E. Samples for Verification: For each type of factory-prepared finish coat indicated; 12 by 12 inches, and prepared on rigid backing with color selected.

1.4 QUALITY ASSURANCE

- A. Mockups: Before plastering, install mockups of at least 100 sq. ft. in surface area to demonstrate aesthetic effects and set quality standards for materials and execution.
1. Comprehensive, completely integrated mockups of separate trades work, indicating interface connections, transitions, relationships between materials and finishes, and quality of workmanship. Coordinated mockups shall include, but is not limited to, the following:
 - a. Work of this Section.
 - b. Framing, including backing, blocking, strapping, and similar accessory/sub-framing materials.
 - c. Sheathing, including building paper.
 - d. Sealants.
 - e. Penetrations of portland cement plaster assemblies.
 - f. Other materials and finishes that are within indicated area of coordinated mockups, including barrier/backing/support for above work.
 2. Install mockups for each type of finish indicated.
 3. Approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.
 4. Use of self-furring lath is subject to satisfactory jobsite demonstration for each project of lath installation, with approval by Inspector of Record.
- B. Preinstallation Conference: Conduct conference at Project site.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Store materials inside under cover and keep them dry and protected against damage from weather, direct sunlight, surface contamination, corrosion, construction traffic, and other causes.

1.6 PROJECT CONDITIONS

- A. Comply with ASTM C 926 requirements.
- B. Exterior Plasterwork:
 - 1. Apply and cure plaster to prevent plaster drying out during curing period. Use procedures required by climatic conditions, including moist curing, providing coverings, and providing barriers to deflect sunlight and wind.
 - 2. Apply plaster when ambient temperature is greater than 40 deg F.
 - 3. Protect plaster coats from freezing for not less than 48 hours after set of plaster coat has occurred.
- C. Factory-Prepared Finishes: Comply with manufacturer's written recommendations for environmental conditions for applying finishes.

1.7 WARRANTY

- A. Manufacturer's Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of cement plaster system that fail in materials within specified warranty period. Failure includes, but is not limited to, blistering, peeling, flaking, delaminating, rusting, checking, crazing, fading beyond manufacturer's published limits, or chipping as a result of manufacturing defects.
 - 1. Warranty Period: 6 years.
- B. Special Waterproof Warranty: Submit cement plaster system manufacturer's warranty certifying that work of this Section has been properly applied in strict accordance with system manufacturer's recommended procedures, instructions, and systems current applicable specifications; has been properly integrated into building construction in accordance with sound design and building construction practices; and will remain resistant to water penetration for specified warranty period.
 - 1. Warranty Period: 3 years.
- C. Weather Resistive Barriers: 10 years.
- D. Installer's Warranty:
 - 1. Warranty Period: 5 years.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Finish-Coat Plaster: Subject to compliance with requirements, provide products by one of the following manufacturers.
 - 1. ColorTek by Omega. (Basis of Design)
 - 2. LaHabra Stucco.
 - 3. Merlex.
 - 4. Sto.
 - 5. Or equal.

- B. Metal Lath: Subject to compliance with requirements, provide products by one of the following manufacturers.
 - 1. Alabama Metal Industries Corporation (AMICO).
 - 2. California Expanded Metal Products Company (CEMCO).
 - 3. Dale/Incor.
 - 4. Unimast, Inc.
 - 5. Clark Western Metal Lath & Steel Framing Systems.
 - 6. Structa Wire Corp.
 - 7. Or equal.

- C. Weather-Resistant Barrier: Subject to compliance with requirements, provide products by one of the following manufacturers.
 - 1. HydroTex by Fortifiber.(Basis of Design)
 - 2. GMC Roofing.
 - 3. Or equal.

- D. Zinc-Coated (Galvanized) Steel Accessories: Subject to compliance with requirements, provide either the named product or an equal product by one of the other manufacturers specified.
 - 1. Stockton Products. (Basis of Design)
 - 2. Fry Reglet Corp.
 - 3. Alabama Metal Industries Corporation (AMICO).
 - 4. California Expanded Metal Products Company (CEMCO).
 - 5. Dietrich Industries, Inc.
 - 6. Brand X Metals.
 - 7. Or equal.

- E. Aluminum Trim and Reveals: Subject to compliance with requirements, provide either the named product or an equal product by one of the other manufacturers specified.
 - 1. Fry Reglet Corp. (Basis of Design)
 - 2. Flannery, Inc.
 - 3. Gordon, Inc.
 - 4. Pittcon Industries.
 - 5. Brand X Metals, Inc.
 - 6. Or equal.

2.2 METAL LATH

- A. Expanded-Metal Lath: ASTM C 847 with ASTM A 653, G90, hot-dip galvanized zinc coating.
 - 1. Diamond-Mesh Lath: Self-furring.
 - a. Weight: 3.4 lb/sq. yd.
 - b. Use: Vertical and horizontal solid support surfaces, such as unit masonry, concrete, or sheathing. Horizontal open framing up to 16 inches on center.
 - 2. Diamond-Mesh Lath: Non-self-furring.
 - a. Weight: 3.4 lb/sq. yd.
 - b. Use: Attached with fastener when enforcing authority prohibit use of self-furring types.
 - 3. 3/8-Inch Rib Lath (High Rib):
 - a. Weight: 3.4 lb/sq. yd.
 - b. Use: Horizontal open framing 24 inches on center.
- B. Wire Lath: ES Report, ESR-2017, ASTM C847 with ASTM A641, Class 1 galvanized coating.
 - 1. Mega Lath: Self-furring.
 - a. Use: Vertical and horizontal solid support surfaces.
 - 2. V Truss Wall & Ceiling Lath : Rib Lath
 - a. Use: Vertical and horizontal open framing.

2.3 WEATHER-RESISTANT BARRIER

- A. Super Jumbo Tex 60 Minute asphalt-saturated kraft paper with a drainable polymeric housewrap layer – packaged in a single roll. Exceeds Grade D paper performance.

2.4 ACCESSORIES

- A. General: Comply with ASTM C 1063 and coordinate depth of trim and accessories with thicknesses and number of plaster coats required.
- B. Zinc-Coated (Galvanized) Steel Accessories: Fabricated from hot-dip galvanized steel sheet, ASTM A 653 G90 zinc coating.
 - 1. Foundation Weep Screed.
 - 2. Cornerite: Fabricated.
 - 3. External-Corner Reinforcement.
 - 4. Cornerbeads.
 - a. Small nose cornerbead with expanded flanges; use unless otherwise indicated.
 - b. Small nose cornerbead with perforated flanges; use on curved corners.
 - c. Small nose cornerbead with expanded flanges reinforced by perforated stiffening rib; use on columns and for finishing masonry corners.
 - d. Bull nose cornerbead, radius 3/4 inch minimum, with expanded flanges; use at locations indicated on Drawings.
 - 5. Casing Beads: Square-edged style; with expanded flanges.
 - 6. Control Joints: One-piece-type, folded pair of unperforated screeds in M-shaped configuration; with perforated flanges and removable protective tape on plaster face of control joint.
 - 7. Expansion Joints: Folded pair of unperforated screeds in M-shaped configuration; with expanded flanges.

- a. Internal Corners: Double-V, narrow reveal type ("No. 30").
 8. Two-Piece Expansion Joints: Formed to produce slip-joint and square-edged reveal that is adjustable from 1/4-to-5/8-inch wide; with perforated flanges.
 9. Stucco Reglet:
 - a. Product: "ST" Stucco Reglet by Fry Reglet.
 - b. Thickness: 24 gage.
 10. Surface Mounted Reglet:
 - a. Product: "SM" Surface Mount Reglet by Fry Reglet.
 - b. Thickness: 24 gage.
 11. Flashing System:
 - a. Product: Springlok Flashing System by Fry Reglet.
 - b. Thickness: 24 gage.
 12. Continuous Soffit Vents: Perforated screeds, with expanded flanges.
 - a. Product: Model SVR Reveal Screed by Stockton Products.
 - b. Vent Width: As indicated on Drawings.
 13. Termination Screed: J Mold.
 - a. Product: J-B Bead by Stockton Products.
 - b. Size: As indicated on Drawings.
 14. Window /Door Drip: Door Drip Screed.
 - a. Product: WTP Window Termination Point by Stockton Products.
 - b. Size: As indicated on Drawings.
 15. Drip Screed: Stucco Drip Soffit.
 - a. Product: NFD #5 Drip by Stockton Products.
 - b. Size: As indicated on Drawings.
- C. Aluminum Trim and Reveals:
1. Aluminum shall be extruded alloy 6063 T5, with clear anodized finish.
 - a. Size: As indicated on Drawings.

2.5 MISCELLANEOUS MATERIALS

- A. Water for Mixing: Potable and free of substances capable of affecting plaster set or of damaging plaster, lath, or accessories.
- B. Steel Drill Screws: For metal-to-metal fastening, ASTM C 1002 or ASTM C 954, as required by thickness of metal being fastened; with pan head that is suitable for application; in lengths required to achieve penetration through joined materials of not fewer than three exposed threads.
- C. Fasteners for Attaching Metal Lath to Substrates: Complying with ASTM C 1063 and CBC Section 2507.
1. Nails, screws, and staples as specified in CBC.
 - a. Nails: For attaching metal plaster bases to wood supports, 0.1205 inch 11 gauge diameter, 7/16 inch head, barbed, galvanized roofing nails or galvanized common nails. Nails for attaching metal plaster bases to solid substrates shall be not less than 3/4 inch long.
 - b. Screws: For attaching metal plaster base shall be fabricated in accordance with either Specification ASTM C 954 or ASTM C 1002 and shall have a 7/16 inch diameter pan wafer head and a 0.120 inch diameter shank. Screws used for attachment to metal framing members shall be self-drilling and self-tapping. Screws used for attachment to wood framing members shall be sharp-point.

2. Fastener for use with concrete/masonry for attaching lath and screeds/control joints, weeps and other shapes.
3. Steel Stud Applications: Galvanized steel furring nails and or screws, of type and length.
 - a. At least 2/3 inch penetration of the steel stud system.
- D. Isolation Strip at Exterior Walls: Comply with requirements of Division 7 Section "Flexible Sheet Flashing" for flashing windows, door, and other openings.
- E. Thermal Insulation: Comply with requirements of Division 7 Section "Building Insulation".

2.6 PLASTER MATERIALS

- A. Factory Mixed Scratch and Brown Coat:
 1. Portland Cement: ASTM C 150, Type I or II.
 2. Sand Aggregate: ASTM C 897.
 3. Lime: ASTM C 206, Type S; or ASTM C 207, Type S.
 4. Admixture: Admix 500.
- B. Ready-Mixed Finish-Coat Plaster: Mill-mixed portland cement, aggregates, coloring agents, and proprietary ingredients.
 1. Finish Texture: Match existing.
 2. Colorant: Match color of field finish coating specified in Division 9 Section "Painting".

2.7 PLASTER MIXES

- A. General: Comply with ASTM C 926 for applications indicated.
- B. Factory-Prepared Finish-Coat Mixes: For ready-mixed finish-coat plasters, comply with manufacturer's written instructions.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas and substrates, with Installer present, and including welded hollow-metal frames, cast-in anchors, and structural framing, for compliance with requirements and other conditions affecting performance.
 1. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Protect adjacent work from soiling, spattering, moisture deterioration, and other harmful effects caused by plastering.
- B. Prepare solid-plaster bases that are smooth or that do not have the suction capability required to bond with plaster according to ASTM C 926.

3.3 INSTALLATION, GENERAL

- A. Thermal Insulation: As specified in Division 7 Section "Building Insulation".
- B. Sound Attenuation Blankets: Where required, install blankets before installing lath unless blankets are readily installed after lath has been installed on one side.
- C. Acoustical Sealant: Where required, seal joints between edges of plasterwork and abutting construction with acoustical sealant.

3.4 INSTALLING METAL LATH AND WEATHER-RESISTANT BARRIER INSTALLATION

- A. Expanded-Metal Lath: Install according to ASTM C 1063.
 - 1. Lath shall be attached to framing members at spacing of not more than 6 inches o.c., 2 inches maximum from longitudinal edges, in accordance with CBC.
- B. Weather-Resistant Barrier: Install 2 layers over sheathing.

3.5 INSTALLING ACCESSORIES

- A. Install according to ASTM C 1063 and at locations indicated on Drawings.
- B. Reinforcement for External Corners:
 - 1. Install lath-type external-corner reinforcement at exterior locations.
- C. Weep screed: Install at foundation plate line on all exterior stud walls per CBC.
 - 1. Minimum 4 inches above earth.
 - 2. Minimum 2 inches above paved areas.
- D. Control Joints: Install control joints in specific locations approved by Architect for visual effect as follows:
 - 1. As required to delineate plasterwork into areas (panels) of the following maximum sizes:
 - a. Vertical Surfaces: 144 sq. ft.
 - b. Horizontal and other Nonvertical Surfaces: 100 sq. ft.
 - 2. At distances between control joints of not greater than 18 feet o.c.
 - 3. As required to delineate plasterwork into areas (panels) with length-to-width ratios of not greater than 2-1/2:1.
 - 4. Where control joints occur in surface of construction directly behind plaster.
 - 5. Where plasterwork areas change dimensions, to delineate rectangular-shaped areas (panels) and to relieve the stress that occurs at the corner formed by the dimension change.

3.6 PLASTER APPLICATION

- A. General: Comply with ASTM C 926.
 - 1. Do not deviate more than plus or minus 1/4 inch in 10 feet from a true plane in finished plaster surfaces, as measured by a 10-foot straightedge placed on surface.

2. Grout hollow-metal frames, bases, and similar work occurring in plastered areas, with base-coat plaster material, before lathing where necessary. Except where full grouting is indicated or required for fire-resistance rating, grout at least 6 inches at each jamb anchor.
 3. Finish plaster flush with metal frames and other built-in metal items or accessories that act as a plaster ground, unless otherwise indicated. Where casing bead does not terminate plaster at metal frame, cut base coat free from metal frame before plaster sets and groove finish coat at junctures with metal.
 4. Provide plaster surfaces that are ready to receive field-applied finishes indicated.
- B. Three-Coat System: Total minimum thickness of 7/8 inch for lathing base.
1. Scratch Coat:
 - a. Over Lathing Base: Apply scratch coat to a minimum thickness of 3/8 inch on vertical surface, and 1/4 inch on horizontal surface, using sufficient trowel pressure to key plaster into lath or to create bond to substrates as applicable. Prior to initial set, scratch horizontally to provide key for bond of brown coat.
 2. Brown Coat: Apply brown coat to a minimum thickness of 3/8 inch on vertical surface, and 1/4 inch on horizontal surface, using sufficient trowel pressure to insure tight contact with scratch coat.
 - a. Rod surface to screeds creating true and even plane.
 - b. Trowel to a sand float finish and uniform surface to receive finish coat.
 - c. Tool brown coat to provide a V-joint at intersection of plaster with frames or other item of wood, or metal.
 3. Finish Coat: Apply exterior wall finish coat to thickness recommended by manufacturer, but in no case less than 1/8 inch, using sufficient trowel pressure or spray velocity to bond finish coat to basecoat.
- C. Curing Time: Comply with CBC, or longer as needed to insure compliance with manufacturer's recommendations for quality stucco installation.
1. Portland cement plaster:
 - a. Minimum period moist curing:
 - 1) First Coat: 48 hours.
 - 2) Second Coat: 48 hours.
 - b. Minimum interval between coats:
 - 1) First Coat: 48 hours.
 - 2) Second Coat: 7 days.

3.7 ASSEMBLY

- A. Exterior Side from framing out:
1. Sheathing.
 2. Weather-Resistive Barrier.
 3. Metal Lath.
 4. 3-coat portland cement plaster.

3.8 CUTTING AND PATCHING

- A. Cut, patch, replace, and repair plaster as necessary to accommodate other work and to restore cracks, dents, and imperfections. Repair or replace work to eliminate blisters, buckles, crazing

and check cracking, dry outs, efflorescence, sweat outs, and similar defects and where bond to substrate has failed.

3.9 CLEANING AND PROTECTION

- A. Remove temporary protection and enclosure of other work. Promptly remove plaster from doorframes, windows, and other surfaces not indicated to be plastered. Repair floors, walls, and other surfaces stained, marred, or otherwise damaged during plastering.

END OF SECTION 092400

SECTION 092900 - GYPSUM BOARD

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Interior gypsum board.
- B. Related Sections include the following:
 - 1. Division 7 Section "Building Insulation" for insulation and vapor retarders installed in assemblies that incorporate gypsum board.
 - 2. Division 9 Section "Non-Load-Bearing Steel Framing" for non-structural framing and suspension systems that support gypsum board.
 - 3. Division 9 Section "Painting" for primers and finishes applied to gypsum board surfaces.

1.3 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Samples: For the following products:
 - 1. Trim Accessories: Full-size Sample in 12-inch- long length for each trim accessory indicated.
 - 2. Finishes: Level 4 and 5 of gypsum board finish indicated for use in exposed locations. 4 by 4 foot sample.
 - a. Finishes: For each finish indicated and on same backing indicated for Work.

1.4 QUALITY ASSURANCE

- A. Fire-Resistance-Rated Assemblies: For fire-resistance-rated assemblies, provide materials and construction identical to those tested in assembly indicated according to ASTM E 119 by an independent testing agency acceptable to authorities having jurisdiction.
- B. Mockups: Before beginning gypsum board installation, install mockups of at least 100 sq. ft. in surface area to demonstrate aesthetic effects and set quality standards for materials and execution.
 - 1. Install mockups for the following:
 - a. Each level of gypsum board finish indicated for use in exposed locations.
 - b. Each finish indicated.
 - c. Each areas such as walls, ceilings, and soffits.

2. Apply or install final decoration indicated, including painting and wallcoverings, on exposed surfaces for review of mockups.
3. Simulate finished lighting conditions for review of mockups.
4. Approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.5 STORAGE AND HANDLING

- A. Store materials inside under cover and keep them dry and protected against damage from weather, condensation, direct sunlight, construction traffic, and other causes. Stack panels flat to prevent sagging.

1.6 PROJECT CONDITIONS

- A. Environmental Limitations: Comply with ASTM C 840 requirements or gypsum board manufacturer's written recommendations, whichever are more stringent.
- B. Do not install interior products until installation areas are enclosed and conditioned.
- C. Do not install panels that are wet, those that are moisture damaged, and those that are mold damaged.
 1. Indications that panels are wet or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.
 2. Indications that panels are mold damaged include, but are not limited to, fuzzy or splotchy surface contamination and discoloration.

1.7 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of gypsum board that fails in materials or workmanship within specified warranty period.
 1. Warranty Period: 1 year.
- B. Installer's Warranty: 1 year.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Interior Gypsum Board: Subject to compliance with requirements, provide products by one of the following:
 1. USG Corporation.
 2. National Gypsum Company.
 3. G-P Gypsum.
 4. Or equal.

- B. Steel Trim Accessories: Subject to compliance with requirements, provide products by one of the following:
 - 1. USG Corporation.
 - 2. Amico.
 - 3. Or equal.

2.2 PANELS, GENERAL

- A. Size: Provide in maximum lengths and widths available that will minimize joints in each area and that correspond with support system indicated.

2.3 INTERIOR GYPSUM BOARD

- A. General: Complying with ASTM C 36 or ASTM C 1396, as applicable to type of gypsum board indicated and whichever is more stringent.
- B. Type X:
 - 1. Thickness: 5/8 inch.
 - 2. Long Edges: Tapered.
- C. Impact Resistant Type: ASTM C1278 and ASTM C1629.
 - 1. Core: 5/8 inch, Type X.
 - 2. High-density paperless gypsum and cellulose wall panels with long edges.
 - 3. Products:
 - a. FIBEROCK Brand VHI panels by USG.
 - b. Hi-Impact XP Wallboard by National Gypsum.
 - c. Or equal.
- D. Water-Resistant Gypsum Backing Board: ASTM C 630 or ASTM C 1396.
 - 1. Core: 5/8 inch, Type X.
 - 2. Use: Toilet rooms and janitor's closets walls with painted finish.
 - 3. Products:
 - a. USG Mold Tough Firecode Core Gypsum Panels by USG.
 - b. Gold Bond Brand Moisture-Resistant Fire Resistant Gypsum Board by National Gypsum.
 - c. Or equal.
 - 4. When Water-Resistant Gypsum Backing Boards are not available (gradual phasing out by manufacturers), provide Moisture- and Mold-Resistant Type: With moisture- and mold-resistant core and surfaces.
 - a. USG Mold Tough Firecode Core Gypsum Panels by USG.
 - b. XP Wallboard by National Gypsum.
 - c. DensArmor Interior Guard by G-P.
 - d. Or equal.

2.4 TRIM ACCESSORIES

- A. Trim: ASTM C 1047.
 - 1. Material: Galvanized or aluminum-coated steel sheet or rolled zinc.

2. Shapes:
 - a. Cornerbead.
 - b. Bullnose bead.
 - c. LC-Bead: J-shaped; exposed long flange receives joint compound.
 - d. L-Bead: L-shaped; exposed long flange receives joint compound.
 - e. U-Bead: J-shaped; exposed short flange does not receive joint compound.
 - f. Expansion (control) joint.
 - g. Curved-Edge Cornerbead: With notched or flexible flanges.

B. Aluminum Trim and Reveal: As specified in Division 9 Section "Portland Cement Plastering".

2.5 JOINT TREATMENT MATERIALS

A. General: Comply with ASTM C 475.

B. Joint Tape: Paper.

C. Joint Compound for Interior Gypsum Wallboard: For each coat use formulation that is compatible with other compounds applied on previous or for successive coats.

1. Sealants shall comply with South Coast Air Quality Management District (SCAQMD) Rule 1168.

2.6 AUXILIARY MATERIALS

A. General: Provide auxiliary materials that comply with referenced installation standards and manufacturer's written recommendations.

B. Steel Drill Screws: ASTM C 1002, unless otherwise indicated.

C. Acoustical Sealant: Sheetrock Acoustical Sealant by USG or equal.

1. Sealants shall comply with South Coast Air Quality Management District (SCAQMD) Rule 1168.

D. Thermal and Acoustical Insulation: As specified in Division 7 Section "Building Insulation."

E. Gypsum Board Adhesives:

1. High performance latex-based construction adhesive designed for gypsum board applications.
2. Adhesives shall comply with South Coast Air Quality Management District (SCAQMD) Rule 1168.
3. Products:
 - a. Green Series SW-325 Shear & Drywall Adhesive by OSI.
 - b. Drywall Adhesive GDWA by Grabberman.
 - c. Or equal.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas and substrates, with Installer present, and including welded hollow-metal frames and framing, for compliance with requirements and other conditions affecting performance.
- B. Examine panels before installation. Reject panels that are wet, moisture damaged, and mold damaged.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 APPLYING AND FINISHING PANELS, GENERAL

- A. Comply with ASTM C 840.
- B. Install ceiling panels across framing to minimize the number of abutting end joints and to avoid abutting end joints in central area of each ceiling. Stagger abutting end joints of adjacent panels not less than one framing member.
- C. Install panels with face side out. Butt panels together for a light contact at edges and ends with not more than 1/16 inch of open space between panels. Do not force into place.
- D. Locate edge and end joints over supports, except in ceiling applications where intermediate supports or gypsum board back-blocking is provided behind end joints. Do not place tapered edges against cut edges or ends. Stagger vertical joints on opposite sides of partitions. Do not make joints other than control joints at corners of framed openings.
- E. Form control and expansion joints with space between edges of adjoining gypsum panels.
- F. Cover both faces of support framing with gypsum panels in concealed spaces (above ceilings, etc.), except in chases braced internally.
 - 1. Unless concealed application is indicated or required for sound, fire, air, or smoke ratings, coverage may be accomplished with scraps of not less than 8 sq. ft. in area.
 - 2. Fit gypsum panels around ducts, pipes, and conduits.
 - 3. Where partitions intersect structural members projecting below underside of floor/roof slabs and decks, cut gypsum panels to fit profile formed by structural members; allow 1/4- to 3/8-inch- wide joints to install sealant.
- G. Isolate perimeter of gypsum board applied to non-load-bearing partitions at structural abutments, except floors. Provide 1/4- to 1/2-inch- wide spaces at these locations, and trim edges with edge trim where edges of panels are exposed. Seal joints between edges and abutting structural surfaces with acoustical sealant.
- H. Attachment to Steel Framing: Attach panels so leading edge or end of each panel is attached to open (unsupported) edges of stud flanges first.

3.3 INSTALLING TRIM ACCESSORIES

- A. General: For trim with back flanges intended for fasteners, attach to framing with same fasteners used for panels. Otherwise, attach trim according to manufacturer's written instructions.
- B. Control Joints: Install control joints according to ASTM C 840 and in specific locations approved by Architect for visual effect.
- C. Interior Trim: Install in the following locations:
 - 1. Cornerbead: Use at outside corners, unless otherwise indicated.
 - 2. LC-Bead: Use at exposed panel edges.
 - 3. L-Bead: Use where indicated.
 - 4. U-Bead: Use at exposed panel edges.
 - 5. Curved-Edge Cornerbead: Use at curved openings.
- D. Aluminum Trim: Install in locations indicated on Drawings.

3.4 FINISHING GYPSUM BOARD

- A. General: Treat gypsum board joints, interior angles, edge trim, control joints, penetrations, fastener heads, surface defects, and elsewhere as required to prepare gypsum board surfaces for decoration. Promptly remove residual joint compound from adjacent surfaces.
- B. Prefill open joints and damaged surface areas.
- C. Apply joint tape over gypsum board joints, except those with trim having flanges not intended for tape.
- D. Gypsum Board Finish Levels: Comply with GA 214 for Level definitions.
 - 1. Level 1: Ceiling plenum areas, concealed areas, and where indicated.
 - 2. Level 2: Panels that are substrate for ceramic tile or acoustical tile.
 - 3. Level 3: Where indicated on Drawings.
 - 4. Level 4: At panel surfaces that will be exposed to view with flat paint finish.
 - a. Primer and its application to surfaces are specified in other Division 9 Sections.
 - 5. Level 5: At panel surfaces that will be exposed to view with non-flat paint finish.
 - a. Primer and its application to surfaces are specified in other Division 9 Sections.

3.5 PROTECTION

- A. Protect installed products from damage from weather, condensation, direct sunlight, construction, and other causes during remainder of the construction period.
- B. Remove and replace panels that are wet, moisture damaged, and mold damaged.
 - 1. Indications that panels are wet or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.
 - 2. Indications that panels are mold damaged include, but are not limited to, fuzzy or splotchy surface contamination and discoloration.

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END OF SECTION 092900

SECTION 096513 - RESILIENT WALL BASE AND ACCESSORIES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 1. Wall base.
 2. Molding accessories.
 - 3.

1.3 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Samples for Initial Selection: For each type of product indicated.
- C. Samples for Verification: For each type of product indicated, in manufacturer's standard-size Samples but not less than 12 inches long, of each resilient product color, texture, and pattern required.

1.4 QUALITY ASSURANCE

- A. Pre-Molded Corners: Pre-molded inside and outside rubber base corners shall be from same production run as straight base. These are commonly from different production run and as result are different color shades. This color difference often negates premium appearance of pre-molded products.
- B. Fire-Test-Response Characteristics: Provide resilient stair accessories with a critical radiant flux classification of Class I, not less than 0.45 W/sq. cm, as determined by testing identical products per ASTM E 648 by a testing and inspecting agency acceptable to authorities having jurisdiction.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Store resilient products and installation materials in dry spaces protected from the weather, with ambient temperatures maintained within range recommended by manufacturer, but not less than 50 deg F or more than 90 deg F.

1.6 PROJECT CONDITIONS

- A. Maintain temperatures within range recommended by manufacturer, but not less than 70 deg F or more than 95 deg F, in spaces to receive floor tile during the following time periods:
 - 1. 48 hours before installation.
 - 2. During installation.
 - 3. 48 hours after installation.
- B. After postinstallation period, maintain temperatures within range recommended by manufacturer, but not less than 55 deg F or more than 95 deg F.
- C. Install resilient products after other finishing operations, including painting, have been completed.

1.7 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of resilient wall base and accessories that fails in materials or workmanship within specified warranty period.
 - 1. Warranty Period: 2 years.
- B. Installer's Warranty: 1 year.

1.8 EXTRA MATERIALS

- A. Furnish extra materials described below that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Furnish not less than 10 linear feet for every 500 linear feet or fraction thereof, of each type, color, pattern, and size of resilient product installed.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Vinyl Wall Base and Accessories:
 - 1. Johnsonite. (Basis of Design)
 - 2. Flexco.
 - 3. Burke Mercer Flooring Products.
 - 4. Or equal.

2.2 RESILIENT WALL BASE

- A. Product: As indicated on Drawings.

2.3 RESILIENT MOLDING ACCESSORY

- A. Material: Rubber.

- B. Profile and Dimensions: As indicated.

2.4 INSTALLATION MATERIALS

- A. Trowelable Leveling and Patching Compounds: Latex-modified, portland cement based or blended hydraulic cement based formulation provided or approved by resilient product manufacturers for applications indicated.
- B. Adhesives: Water-resistant type recommended by manufacturer to suit resilient products and substrate conditions indicated.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, with Installer present, for compliance with requirements for installation tolerances, moisture content, and other conditions affecting performance.
 - 1. Verify that finishes of substrates comply with tolerances and other requirements specified in other Sections and that substrates are free of cracks, ridges, depressions, scale, and foreign deposits that might interfere with adhesion of resilient products.
 - 2. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Prepare substrates according to manufacturer's written recommendations to ensure adhesion of resilient products.
- B. Concrete Substrates:
 - 1. Verify that substrates are dry and free of curing compounds, sealers, and hardeners.
- C. Remove substrate coatings and other substances that are incompatible with adhesives and that contain soap, wax, oil, or silicone, using mechanical methods recommended by manufacturer. Do not use solvents.
- D. Use trowelable leveling and patching compound to fill cracks, holes, and depressions in substrates.
- E. Move resilient products and installation materials into spaces where they will be installed at least 48 hours in advance of installation.
 - 1. Do not install resilient products until they are the same temperature as the space where they are to be installed.
- F. Sweep and vacuum clean substrates to be covered by resilient products immediately before installation. After cleaning, examine substrates for moisture, alkaline salts, carbonation, and dust. Proceed with installation only after unsatisfactory conditions have been corrected.

3.3 RESILIENT WALL BASE INSTALLATION

- A. Apply wall base to walls, columns, pilasters, casework and cabinets in toe spaces, and other permanent fixtures in rooms and areas where base is required.
- B. Install wall base in lengths as long as practicable without gaps at seams and with tops of adjacent pieces aligned.
- C. Tightly adhere wall base to substrate throughout length of each piece, with base in continuous contact with horizontal and vertical substrates.
- D. Do not stretch wall base during installation.
- E. Premolded Corners: Install premolded corners before installing straight pieces.
- F. Job-Formed Corners:
 - 1. Outside Corners: Use straight pieces of maximum lengths possible. Form without producing discoloration (whitening) at bends. Shave back of base at points where bends occur and remove strips perpendicular to length of base that are only deep enough to produce a snug fit without removing more than half the wall base thickness.
 - 2. Inside Corners: Use straight pieces of maximum lengths possible. Form by cutting an inverted V-shaped notch in toe of wall base at the point where corner is formed. Shave back of base where necessary to produce a snug fit to substrate.

3.4 RESILIENT ACCESSORY INSTALLATION

- A. Resilient Molding Accessories: Butt to adjacent materials and tightly adhere to substrates throughout length of each piece. Install reducer strips at edges of floor coverings that would otherwise be exposed.

3.5 CLEANING AND PROTECTION

- A. Perform the following operations immediately after completing resilient product installation:
 - 1. Remove adhesive and other blemishes from exposed surfaces.
 - 2. Sweep and vacuum surfaces thoroughly.
 - 3. Damp-mop surfaces to remove marks and soil.
 - 4. Do not wash surfaces until after time period recommended by manufacturer.
- B. Protect resilient products from mars, marks, indentations, and other damage from construction operations and placement of equipment and fixtures during remainder of construction period. Use protection methods recommended in writing by manufacturer.

END OF SECTION 096513

SECTION 096516 – RESILIENT SHEET FLOORING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes:
 - 1. Sheet rubber floor coverings.
- B. Related Sections include the following:
 - 1. Division 9 Section "Resilient Wall Base and Accessories" for resilient wall base, reducer strips, and other accessories installed with sheet vinyl floor coverings.

1.3 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Shop Drawings: For each type of flooring. Include flooring layouts, locations of seams, edges, columns, doorways, enclosing partitions, built-in furniture, cabinets, and cutouts.
 - 1. Show details of special patterns.
 - 2. Include concrete moisture and alkalinity limits.
- C. Samples for Initial Selection: For each type of floor covering indicated.
 - 1. Include similar Samples of installation accessories involving color selection.
- D. Samples for Verification: In manufacturer's standard size, but not less than 6-by-9-inch sections of each different color and pattern of floor covering required.
 - 1. For heat-welding bead, manufacturer's standard-size Samples, but not less than 9 inches long, of each color required.
- E. Heat-Welded Seam Samples: For each flooring product and welding bead color and pattern combination required; with seam running lengthwise and in center of 6-by-9-inch Sample applied to a rigid backing and prepared by Installer for this Project.
- F. Qualification Data: For Installer.
- G. Maintenance Data: For floor coverings to include in maintenance manuals.

1.4 QUALITY ASSURANCE

- A. Installer Qualifications: A qualified installer who employs workers for this Project that are competent in heat-welding techniques required by manufacturer for floor covering installation.
 - 1. Engage an installer who employs workers for this Project that are trained or certified by floor covering manufacturer for heat-welding techniques required.
- B. Fire-Test-Response Characteristics: Provide products identical to those tested for fire-exposure behavior per test method indicated by a testing and inspecting agency acceptable to authorities having jurisdiction.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Store floor coverings and installation materials in dry spaces protected from the weather, with ambient temperatures maintained within range recommended by manufacturer, but not less than 50 deg F or more than 90 deg F. Store rolls upright.

1.6 PROJECT CONDITIONS

- A. Maintain temperatures within range recommended by manufacturer, but not less than 70 deg F or more than 85 deg F, in spaces to receive floor tile during the following time periods:
 - 1. 48 hours before installation.
 - 2. During installation.
 - 3. 48 hours after installation.
- B. After postinstallation period, maintain temperatures within range recommended by manufacturer, but not less than 55 deg F or more than 95 deg F.
- C. Close spaces to traffic during floor covering installation.
- D. Close spaces to traffic for 48 hours after floor covering installation.
- E. Install floor coverings after other finishing operations, including painting, have been completed.

1.7 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of sheet vinyl floor coverings that fails in materials or workmanship within specified warranty period.
 - 1. Warranty Period: 1 year.
- B. Installer's Warranty: 1 year.

1.8 EXTRA MATERIALS

- A. Furnish extra materials described below that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.

1. Furnish not less than 10 linear feet for every 500 linear feet or fraction thereof, in roll form and in full roll width for each color, pattern, and type of floor covering installed.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Sheet Rubber Flooring: Subject to compliance with requirements, provide either the named product or an equal product by one of the other manufacturers specified.
 1. US Rubber. (Basis of Design)
 2. Mondo Rubber International, Inc.
 3. Nora Rubber Flooring, Freudenberg Building Systems, Inc.
 4. Roppe Corporation.
 5. Or equal.

2.2 SHEET RUBBER FLOOR COVERING

- A. Product: Survivor CrossFit Mat by US Rubber or equal.
 1. Material: Recycled tire rubber, polymerically bound.
 2. Size: 6 ft x 4 ft.
 3. Weight: 1/2" thickness -- 90 lbs.
 4. Color: #82 Steel (20% gray).
 5. Maintenance: Damp mop and let dry.
 6. Warranty: 5 years materials and workmanship (pro-rated basis).
 7. Chemicals: Resistant to most acids and chlorine.
 8. VOCs: No measurable units

2.3 INSTALLATION MATERIALS

- A. Trowelable Leveling and Patching Compounds: Latex-modified, portland cement based or blended hydraulic cement based formulation provided or approved by floor covering manufacturer for applications indicated.
- B. Adhesives: Water-resistant type recommended by manufacturer to suit sheet vinyl floor covering and substrate conditions indicated.
- C. Heat-Welding Bead: Solid-strand product of floor covering manufacturer.
 1. Color: As selected by Architect from manufacturer's full range.
- D. Metal Edge Strips: Extruded aluminum with mill finish of width shown, of height required to protect exposed edges of floor coverings, and in maximum available lengths to minimize running joints.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, with Installer present, for compliance with requirements for installation tolerances, moisture content, and other conditions affecting performance.
 - 1. Verify that finishes of substrates comply with tolerances and other requirements specified in other Sections and that substrates are free of cracks, ridges, depressions, scale, and foreign deposits that might interfere with adhesion of floor coverings.
 - 2. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Prepare substrates according to manufacturer's written recommendations to ensure adhesion of floor coverings.
- B. Concrete Substrates:
 - 1. Verify that substrates are dry and free of curing compounds, sealers, and hardeners.
- C. Remove substrate coatings and other substances that are incompatible with floor covering adhesives and that contain soap, wax, oil, or silicone, using mechanical methods recommended by manufacturer. Do not use solvents.
- D. Use trowelable leveling and patching compound to fill cracks, holes, and depressions in substrates.
- E. Move floor coverings and installation materials into spaces where they will be installed at least 48 hours in advance of installation.
 - 1. Do not install floor coverings until they are same temperature as space where they are to be installed.
- F. Sweep and vacuum clean substrates to be covered by floor coverings immediately before installation. After cleaning, examine substrates for moisture, alkaline salts, carbonation, and dust. Proceed with installation only after unsatisfactory conditions have been corrected.

3.3 INSTALLATION

- A. Unroll sheet vinyl floor coverings and allow them to stabilize before cutting and fitting.
- B. Lay out sheet floor coverings as follows:
 - 1. Maintain uniformity of floor covering direction.
 - 2. Minimize number of seams; place seams in inconspicuous and low-traffic areas, at least 6 inches away from parallel joints in floor covering substrates.
 - 3. Match edges of floor coverings for color shading at seams.
 - 4. Avoid cross seams.
- C. Scribe and cut floor coverings to butt neatly and tightly to vertical surfaces, permanent fixtures, and built-in furniture including cabinets, pipes, outlets, edgings, thresholds, and nosings.

- D. Extend floor coverings into toe spaces, door reveals, closets, and similar openings.
- E. Maintain reference markers, holes, or openings that are in place or marked for future cutting by repeating on floor coverings as marked on substrates. Use chalk or other nonpermanent marking device.
- F. Install floor coverings on covers for telephone and electrical ducts and similar items in installation areas. Maintain overall continuity of color and pattern with pieces of floor coverings installed on covers. Tightly adhere floor covering edges to substrates that abut covers and to cover perimeters.
- G. Adhere floor coverings to substrates using a full spread of adhesive applied to substrate to produce a completed installation without open cracks, voids, raising and puckering at joints, telegraphing of adhesive spreader marks, and other surface imperfections.
- H. Heat-Welded Seams: Comply with ASTM F 1516. Rout joints and use welding bead to permanently fuse sections into a seamless floor covering. Prepare, weld, and finish seams to produce surfaces flush with adjoining floor covering surfaces.

3.4 CLEANING AND PROTECTION

- A. Perform the following operations immediately after completing floor covering installation:
 - 1. Remove adhesive and other blemishes from floor covering surfaces.
 - 2. Sweep and vacuum floor coverings thoroughly.
 - 3. Damp-mop floor coverings to remove marks and soil.
 - a. Do not wash floor coverings until after time period recommended by manufacturer.
- B. Protect floor coverings from mars, marks, indentations, and other damage from construction operations and placement of equipment and fixtures during remainder of construction period. Use protection methods recommended in writing by manufacturer.
 - 1. Apply protective floor polish to surfaces that are free from soil, visible adhesive, and blemishes if recommended in writing by manufacturer.
 - 2. Cover floor coverings with undyed, untreated building paper until Substantial Completion.
 - 3. Do not move heavy and sharp objects directly over floor coverings. Place plywood or hardboard panels over floor coverings and under objects while they are being moved. Slide or roll objects over panels without moving panels.

END OF SECTION 096516

SECTION 099100 - PAINTING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Surface Preparation.
 - 2. Field application of paints, stains, varnishes, and other coatings.

1.3 SUBMITTALS

- A. Product data - Submit product data sheets for each product.
- B. Samples:
 - 1. Submit two painted samples, illustrating selected colors and textures for each color and systems selected with specified coats cascaded.
 - 2. Submit on suitable backing, 8x10 inch size.

1.4 DELIVERY, STORAGE, AND PROTECTION

- A. Deliver products to site in sealed and labeled containers; inspect to verify acceptability.
- B. Container Label: Include manufacturer's name, type of paint, brand name, lot number, brand code, coverage, surface preparation, drying time, cleanup requirements, color designation, and instructions for mixing and reducing.

1.5 ENVIRONMENTAL REQUIREMENTS

- A. Do not apply materials when surface and ambient temperatures are outside the temperature ranges required by the paint product manufacturer.
- B. Provide lighting level of 80 ft candles measured mid-height at substrate surface.
- C. Environment Requirements:
 - 1. Comply with manufacturer's recommendations as to environmental conditions under which coatings and coating systems can be stored and applied.
 - 2. Do not paint when there is a threat of rain within 24 hours or when surface or air temperatures are at or below 40 degrees.

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1.6 WARRANTY

- A. Installer Warranty: 1 year.

1.7 EXTRA STOCK

- A. Provide following:
 - 1. Minimum 1 gallon each product in original or new 1 gallon cans.
 - a. Color spot each lid.
 - b. Identify with formula, location, product and date.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Paints: Subject to compliance with requirements, provide either the named product or an equal product by one of the other manufacturers specified.
 - 1. Sherwin Williams. (Basis of Design)
 - 2. Dunn-Edwards.
 - 3. Vista Paint.
 - 4. PPG.
 - 5. Or equal.

2.2 PAINTS AND COATINGS

- A. Ready mixed, except field-catalyzed coatings.
- B. Prepare pigments:
 - 1. To a soft paste consistency, capable of being readily and uniformly dispersed to a homogenous coating.
 - 2. For good flow and brushing properties.
 - 3. Capable of drying or curing free of streaks or sags.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that surfaces are ready to receive Work as instructed by the product manufacturer.
- B. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially affect proper application. Do not proceed unless substrate is suitable.
- C. Test shop-applied primer for compatibility with subsequent cover materials.
- D. Measure moisture content of surfaces using an electronic moisture meter. Do not apply finishes unless moisture content of surfaces are below the following maximums:

1. Plaster and Gypsum Wallboard: 12 percent.
2. Masonry, Concrete, and Concrete Unit Masonry: 12 percent
3. Interior Wood: 15 percent, measured in accordance with ASTM D4442.
4. Exterior Wood: 15 percent, measured in accordance with ASTM D4442.

3.2 PREPARATION OF SURFACE

A. General:

1. Clean all exterior walls and surfaces of loose and scaly paint, dirt, dust, chalk, and other foreign matter by water-blasting using care not to damage substrate followed by hand scraping, sanding or wire brushing after surfaces are dry. Mildew must be treated with household bleach solution and rinsed thoroughly.
2. Patch, caulk, set protruding nails and repair all surfaces and cracks where necessary with suitable patching materials and smooth off to match adjacent surfaces.
3. Sand Glossy surfaces to dull surface and remove residue.
4. Remove mildew from affected surfaces with a solution of Tri-Sodium Phosphate and bleach. Rinse with clean water and allow to dry completely.
5. Existing surfaces to be recoated shall be thoroughly cleaned and de-glossed by sanding or other means prior to priming and painting. Patched and bare areas shall be spot primed with the same primer as specified for new work.
6. Rusty metal: Scrape, sand or wire wheel, feathering edges to sound coating. Dust surfaces. Topcoat.
7. Remove soil and body oils completely from surfaces, including handrails, door edges and posts. Treat with Liquid Sandpaper or Dull-N-Bond.
8. Remove hardware, accessories, plates, fixtures and similar items not to be finished. Reinstall at completion.
9. Paint edges of sink cut-outs.

B. Galvanized Surfaces: Remove all oils and contamination from galvanized surfaces scheduled to be painted by washing with a compliant solvent wash.

C. Ferrous Metal: Remove grease, rust, scale, dirt and dust from ferrous metal surfaces. Primer coat shall be applied not less than 30 minutes, nor more than 3 hours after preparation of surface.

D. Primed Metal: Sand and scrape shop primed metal to remove loose primer and rust. Touch-up bare, abraded and damaged areas with metal primer. Feather edges to make touch-up patches inconspicuous.

E. Wood Surfaces:

1. Remove dust, grit and foreign matter from wood surfaces. Sand surfaces and dust clean. Spot prime knots, pitch streaks and sappy sections with a stain blocking primer where surfaces are to be painted. Fill nail holes, cracks and other defects after priming and spot prime repairs after patching material has fully cured.
2. Wood surfaces with peeling areas are to have edges of broken paint film sanded to a feather edge.
3. Back prime wood trim. Paint tops, bottoms, edges and cut-outs of doors.

F. Plaster Surfaces:

1. Plaster surfaces shall be dry and free from efflorescence, encrustations and foreign matter. Fill cracks, holes and imperfections, smoothing repairs to match adjacent texture. Allow repairs to fully cure before priming.
2. Prime plaster surfaces with specified primer. Caulk all cracks.

- G. Gypsum Board: Gypsum board shall be dusted clean and free from encrustations and other foreign matter.
- H. Preparation of other surfaces shall be performed following specific recommendations of the coating manufacturer.

3.3 APPLICATION

- A. Apply products in accordance with manufacturer's instructions.
- B. Where adjacent sealant is to be painted, do not apply finish coats until sealant is applied.
- C. Do not apply finishes to surfaces that are not dry. Allow applied coats to dry before next coat is applied.
- D. Apply each coat to uniform appearance. Apply each coat of paint slightly darker than preceding coat unless otherwise approved
- E. Sand wood surfaces lightly between coats to achieve required finish.
- F. Vacuum clean surfaces of loose particles. Use tack cloth to remove dust particles just prior to applying next coat.
- G. Stipple all edges and corners to conceal brush marks.
- H. Paint entire trim element with like color. Painting of faces only is unacceptable. Trim surfaces must be wrapped with the trim color and not "faced off" or "Hollywooded".
- I. Doors: Paint entire door unless otherwise noted, including door top and bottom edge surfaces.
- J. Tinting: Tint each primer a lighter shade to facilitate identification of each coat where multiple coats of the same material are applied. Tint primer to match the color of the finish coat, but provide sufficient differences in shade of primer to distinguish each separate coat.

3.4 PROTECTION

- A. Protect work of other trades and items not intended to receive paint. Install "wet paint" signs to protect newly painted surfaces.

3.5 CLEANING

- A. Protection - Carefully protect areas where work is in progress from damage.
1. Provide and spread clean drop cloths when and where required to provide the necessary protection.

2. Immediately clean-up all accidental spatter, spillage, misplaced paint and restore the affected surface to its original condition.

B. Clean-up:

1. Clean up debris daily per OSHA requirements.
2. At completion of work, remove all materials, supplies, debris and rubbish and leave each area in a clean, acceptable condition.
3. Collect waste material which may constitute a fire hazard, place in closed metal containers, and remove daily from site.

3.6 SURFACES TO BE FINISHED

- A. Paint all new work and areas affected by new work, unless noted otherwise.

- B. Do not paint or finish the following items:

1. Items fully factory-finished unless specifically noted.
2. Fire rating labels, equipment serial number and capacity labels.

- C. Mechanical and Electrical: Use paint systems defined for the substrates to be finished.

1. Paint all insulated and exposed pipes occurring in finished areas to match background surfaces, unless otherwise indicated.
2. Paint shop primed items occurring in finished areas.
3. Paint interior surfaces of air ducts and convector and baseboard heating cabinets that are visible through grilles and louvers with one coat of flat black paint.
4. Paint dampers exposed behind louvers, grilles and convector and baseboard cabinets to match face panels.

3.7 INTERIOR PAINT AND COATING SYSTEMS

- A. Concrete: Walls and Ceilings, Poured Concrete, Precast Concrete, Unglazed Brick, Cement Board, Tilt-Up, Cast-In-Place including Plaster Walls and Ceilings.

1. Latex Systems:

- a. Eg-Shel / Satin Finish:

- 1) 1st Coat: S-W Loxon Concrete and Masonry Primer Sealer, LX02W50 (8 mils wet, 3.2 mils dry).
- 2) 2nd Coat: S-W ProMar 200 HP Zero VOC Latex Eg-Shel, B20-1950 Series.
- 3) 3rd Coat: S-W ProMar 200 HP Zero VOC Latex Eg-Shel, B20-1950 Series (4 mils wet, 1.7 mils dry per coat).

- B. Metal: Structural Steel Columns, Joists, Trusses, Beams, Miscellaneous and Ornamental Iron, Structural Iron, and Ferrous Metal.

1. Alkyd Systems; Water Based:

- a. Semi-Gloss Finish:

- 1) 1st Coat: S-W Pro Industrial Pro-Cryl Universal Primer, B66-1310 Series (5.0 mils wet, 2.0 mils dry).
- 2) 2nd Coat: S-W Pro Industrial Water Based Alkyd Urethane Enamel Semi-Gloss, B53-1150 Series.
- 3) 3rd Coat: S-W Pro Industrial Water Based Alkyd Urethane Enamel Semi-Gloss, B53-1150 Series (4.0-5.0 mils wet, 1.4 - 1.7 mils dry per coat).

- C. Wood: Walls, Ceilings, Doors, and Trim.
 - 1. Alkyd Systems; Water Based:
 - a. Semi-Gloss Finish:
 - 1) 1st Coat: S-W Premium Wood and Wall Primer, B28W8111 (4 mils wet, 1.8 mils dry).
 - 2) 2nd Coat: S-W Pro Industrial Water Based Alkyd Urethane Enamel Semi-Gloss, B53-1150 Series.
 - 3) 3rd Coat: S-W Pro Industrial Water Based Alkyd Urethane Enamel Semi-Gloss, B53-1150 Series (4.0-5.0 mils wet, 1.4 - 1.7 mils dry per coat).
- D. Drywall: Walls, Ceilings, Gypsum Board and similar items.
 - 1. Latex Systems:
 - a. Eg-Shel / Satin Finish:
 - 1) 1st Coat: S-W ProMar 200 Zero VOC Interior Latex Primer, B28W2600 (4 mils wet, 1.5 mils dry).
 - 2) 2nd Coat: S-W ProMar 200 HP Zero VOC Latex Eg-Shel, B20-1950 Series.
 - 3) 3rd Coat: S-W ProMar 200 HP Zero VOC Latex Eg-Shel, B20-1950 Series (4 mils wet, 1.7 mils dry per coat).
 - b. Flat Finish:
 - 1) 1st Coat: S-W ProMar 200 Zero VOC Interior Latex Primer, B28W2600 (4 mils wet, 1.5 mils dry).
 - 2) 2nd Coat: S-W ProMar 200 Zero VOC Latex Flat, B30-12600 Series.
 - 3) 3rd Coat: S-W ProMar 200 Zero VOC Latex Flat, B30-12600 Series (4 mils wet, 1.6 mils dry per coat).

3.8 EXTERIOR PAINT AND COATING SYSTEMS

- A. Concrete: Cementitious Siding, Flexboard, Transite Board, Non-Roof Shingles, Common Brick, Stucco, Tilt-up, Precast, and Poured-in-place Cement.
 - 1. Latex Systems:
 - a. Satin Finish:
 - 1) 1st Coat: S-W Loxon Concrete and Masonry Primer Sealer, LX02W50 (5.3-8.0 mils wet, 2.1-3.2 dry).
 - 2) 2nd Coat: S-W A-100 Exterior Latex Satin, A82 Series.
 - 3) 3rd Coat: S-W A-100 Exterior Latex Satin, A82 Series (4.0 mils wet, 1.5 mils dry per coat).
 - b. Flat Finish:
 - 1) 1st Coat: S-W Loxon Concrete and Masonry Primer Sealer, LX02W50 (5.3-8.0 mils wet, 2.1-3.2 mils dry).
 - 2) 2nd Coat: S-W A-100 Exterior Latex Flat, A6 Series.
 - 3) 3rd Coat: S-W A-100 Exterior Latex Flat, A6 Series (4.0 mils wet, 1.2 mils dry per coat).
- B. Masonry: Concrete Masonry Units (CMU); Cinder or Concrete Block.
 - 1. Latex Systems:
 - a. Satin Finish:
 - 1) 1st Coat: S-W PrepRite Block Filler, B25W25 (75-125 sq ft/gal).
 - 2) 2nd Coat: S-W A-100 Exterior Latex Satin, A82 Series.
 - 3) 3rd Coat: S-W A-100 Exterior Latex Satin, A82 Series (4.0 mils wet, 1.5 mils dry per coat).

- b. Flat Finish:
 - 1) 1st Coat: S-W PrepRite Block Filler, B25W25 (75-125 sq ft/gal).
 - 2) 2nd Coat: S-W A-100 Exterior Latex Flat, A6 Series.
 - 3) 3rd Coat: S-W A-100 Exterior Latex Flat, A6 Series (4.0 mils wet, 1.2 mils dry per coat).

- C. Metal: Miscellaneous. Iron, Ornamental Iron, Structural Iron and Steel, Ferrous Metal.
 - 1. Alkyd Systems; Water Based:
 - a. Semi-Gloss Finish:
 - 1) 1st Coat: S-W Pro Industrial Pro-Cryl Universal Primer, B66-1310 Series (5.0 mils wet, 2.0 mils dry).
 - 2) 2nd Coat: S-W Pro Industrial Water Based Alkyd Urethane Enamel Semi-Gloss, B53-1150 Series.
 - 3) 3rd Coat: S-W Pro Industrial Water Based Alkyd Urethane Enamel Semi-Gloss, B53-1150 Series (4.0-5.0 mils wet, 1.4 - 1.7 mils dry per coat).

- D. Wood: Siding and Hardboard-Bare/Primed.
 - 1. Latex Systems:
 - a. Satin Finish:
 - 1) 1st Coat: S-W Exterior Latex Wood Primer, B42W8041 (4.0 mils wet, 1.4 mils dry).
 - 2) 2nd Coat: S-W A-100 Exterior Latex Satin, A82 Series.
 - 3) 3rd Coat: S-W A-100 Exterior Latex Satin, A82 Series (4.0 mils wet, 1.5 mils dry per coat).
 - b. Flat Finish:
 - 1) 1st Coat: S-W Exterior Latex Wood Primer, B42W8041 (4 mils wet, 1.4 mils dry).
 - 2) 2nd Coat: S-W A-100 Exterior Latex Flat, A6 Series.
 - 3) 3rd Coat: S-W A-100 Exterior Latex Flat, A6 Series (4.0 mils wet, 1.2 mils dry per coat).

- E. Wood: Doors, and Trim.
 - 1. Alkyd Systems; Water Based:
 - a. Semi-Gloss Finish:
 - 1) 1st Coat: S-W Premium Wood and Wall Primer, B28W8111 (4 mils wet, 1.8 mils dry).
 - 2) 2nd Coat: S-W Pro Industrial Water Based Alkyd Urethane Enamel Semi-Gloss, B53-1150 Series.
 - 3) 3rd Coat: S-W Pro Industrial Water Based Alkyd Urethane Enamel Semi-Gloss, B53-1150 Series (4.0-5.0 mils wet, 1.4 - 1.7 mils dry per coat).

3.9 COLORS

- A. To be selected by Architect from Architect's standard color palette.

END OF SECTION 099100

SECTION 101400 - SIGNAGE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Panel signs (room signs).
 - 2. Signage accessories.

1.3 SUBMITTALS

- A. Product Data: Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for each type of sign.
- B. Shop Drawings: Include plans, elevations, and large-scale sections of typical members and other components. Show mounting methods, grounds, mounting heights, layout, spacing, reinforcement, accessories, and installation details.
 - 1. Provide message list for each sign, including large-scale details of wording, lettering, artwork, and braille layout.
- C. Samples for Initial Selection: For each type of sign material indicated that involves color selection.
- D. Samples for Verification: For each type of sign, include the following Samples to verify color selected:
 - 1. Panel Signs: Full-size Samples of each type of sign required.
 - 2. Approved samples will not be returned for installation into Project.
- E. Qualification Data: For Installer.
- F. Maintenance Data: For signage cleaning and maintenance requirements to include in maintenance manuals.

1.4 QUALITY ASSURANCE

- A. Installer Qualifications: An authorized representative of signage manufacturer for installation and maintenance of units required for this Project.
- B. Source Limitations: Obtain each sign type through one source from a single manufacturer.

- C. Regulatory Requirements: Comply with the Americans with Disabilities Act (ADA) and with code provisions as adopted by authorities having jurisdiction.

1.5 PROJECT CONDITIONS

- A. Field Measurements: Where sizes of signs are determined by dimensions of surfaces on which they are installed, verify dimensions by field measurement before fabrication and indicate measurements on Shop Drawings.

1.6 COORDINATION

- A. For signs supported by or anchored to permanent construction, advise installers of anchorage devices about specific requirements for placement of anchorage devices and similar items to be used for attaching signs.
 - 1. For signs supported by or anchored to permanent construction, furnish templates for installation of anchorage devices.

1.7 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of signage fails in materials or workmanship within specified warranty period.
 - 1. Warranty Period: 1 year.
- B. Installer Warranty: 1 year.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Signs: Subject to compliance with requirements, provide either the named product or an equal product by one of the other manufacturers specified.
 - 1. Best Sign Systems Inc. (Basis of Design)
 - 2. ASI Sign Systems, Inc.
 - 3. Curcio Enterprises, Inc.
 - 4. Mohawk Sign Systems.
 - 5. Sign A Rama.
 - 6. Or equal.

2.2 PANEL SIGNS

- A. General: Provide panel signs that comply with requirements indicated for materials, thicknesses, finishes, colors, designs, shapes, sizes, and details of construction.
 - 1. Produce smooth panel sign surfaces constructed to remain flat under installed conditions within tolerance of plus or minus 1/16 inch measured diagonally.

- B. Product: HC300 ADA Sign System by Best Sign Systems.
 - 1. Unframed Panel Signs: Fabricate signs with edges mechanically and smoothly finished.
 - 2. Room, Occupancy, Wayfinding Signs: As selected from 4 standard copy size signs.
 - a. 4" x 2" with up to 4 characters each.
 - b. 6" x 2" with up to 8 characters each.
 - c. 8" x 2" with up to 12 characters each.
 - d. 10" x 2" with up to 14 characters each.
 - 3. Toilet Room Signs: As selected from manufacturer's standard.
 - 4. Symbols of Accessibility: Provide 6-inch- high symbol fabricated from opaque nonreflective vinyl film, 0.0035-inch nominal thickness, with pressure-sensitive adhesive backing suitable for both exterior and interior applications.
 - 5. Raised characters and pictorial symbol signs: Comply with 1117B.5.5.
 - 6. Material:
 - a. 1/4 inch thick (thicker than standard) "MP", acrylic sheet, ASTM D 4802, Category A-1 (cell-cast sheet), Type UVA (UV absorbing).
 - 7. Copy: 5/8 inch Helvetica Medium with contracted grade 2 Braille all capital letter on tactile sign.

2.3 ACCESSORIES

- A. Mounting Methods: Use concealed fasteners fabricated from materials that are not corrosive to sign material and mounting surface.
- B. Anchors and Inserts: Provide nonferrous-metal or hot-dip galvanized anchors and inserts for exterior installations and elsewhere as required for corrosion resistance. Use toothed steel or lead expansion-bolt devices for drilled-in-place anchors. Furnish inserts, as required, to be set into concrete or masonry work.

2.4 FINISHES, GENERAL

- A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
- B. Protect mechanical finishes on exposed surfaces from damage by applying strippable, temporary protective covering before shipping.
- C. Appearance of Finished Work: Variations in appearance of abutting or adjacent pieces are acceptable if they are within one-half of range of approved Samples. Noticeable variations in same piece are not acceptable. Variations in appearance of other components are acceptable if they are within range of approved Samples and are assembled or installed to minimize contrast.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of work.

- B. Verify that items, including anchor inserts, provided under other sections of Work are sized and located to accommodate signs.
- C. Examine supporting members to ensure that surfaces are at elevations indicated or required to comply with authorities having jurisdiction and are free from dirt and other deleterious matter.
- D. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. General: Locate signs and accessories where indicated, using mounting methods of types described and in compliance with manufacturer's written instructions.
 - 1. Install signs level, plumb, and at heights indicated, with sign surfaces free from distortion and other defects in appearance.
 - 2. Interior Wall Signs: Install signs on walls adjacent to latch side of door where applicable. Where not indicated or possible, such as double doors, install signs on nearest adjacent walls. Locate to allow approach within 3 inches of sign without encountering protruding objects or standing within swing of door.
- B. Wall-Mounted Panel Signs:
 - 1. Interior Signs on Smooth Substrates:
 - a. Silicone-Adhesive Mounting: Use liquid-silicone adhesive recommended in writing by sign manufacturer to attach signs to irregular, porous, or vinyl-covered surfaces. Use double-sided vinyl tape where recommended in writing by sign manufacturer to hold sign in place until adhesive has fully cured.
 - 2. Exterior and Interior Signs on Rough Substrates:
 - a. Mechanical Fasteners: Mechanical fasteners placed through predrilled holes. Attach signs with fasteners and anchors suitable for secure attachment to substrate as recommended in writing by sign manufacturer.
 - 1) Fastener: Stainless steel screws, tamper-resistant flat head countersink.
 - 2) Anchors: Suitable for secure attachment to substrate.

3.3 CLEANING AND PROTECTION

- A. After installation, clean soiled sign surfaces according to manufacturer's written instructions. Protect signs from damage until acceptance by Owner.

END OF SECTION 101400

SECTION 102800 - TOILET AND BATH ACCESSORIES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes:
 - 1. Toilet accessories.

1.3 SUBMITTALS

- A. Product Data: For each type of product indicated. Include the following:
 - 1. Construction details and dimensions.
 - 2. Anchoring and mounting requirements, including requirements for cutouts in other work and substrate preparation.
 - 3. Material and finish descriptions.
 - 4. Features that will be included for Project.
 - 5. Manufacturer's warranty.
- B. Product Schedule: Indicating types, quantities, sizes, and installation locations by room of each accessory required.
 - 1. Identify locations using room designations indicated on Drawings.
- C. Maintenance Data: For toilet and bath accessories to include in maintenance manuals.

1.4 QUALITY ASSURANCE

- A. Source Limitations: For products listed together in the same articles in Part 2, provide products of same manufacturer unless otherwise approved by Architect.
- B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

1.5 COORDINATION

- A. Coordinate accessory locations with other work to prevent interference with clearances required for access by people with disabilities, and for proper installation, adjustment, operation, cleaning, and servicing of accessories.

- B. Deliver inserts and anchoring devices set into concrete or masonry as required to prevent delaying the Work.

1.6 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to replace toilet and bath accessories that fails in materials or workmanship within specified warranty period.
 - 1. Warranty Period: 1 year.
- B. Installer's Warranty: 1 year.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Toilet and Bath Accessories: Subject to compliance with requirements, provide either the named product or an equal product by one of the other manufacturers specified.
 - 1. Bobrick Washroom Equipment, Inc.
 - 2. American Specialties, Inc.
 - 3. Bradley Corporation.
 - 4. Or equal.

2.2 MATERIALS

- A. Stainless Steel: ASTM A 666, Type 304, 0.0312-inch minimum nominal thickness, unless otherwise indicated.
- B. Steel Sheet: ASTM A 1008, Designation CS (cold rolled, commercial steel), 0.0359-inch minimum nominal thickness.
- C. Galvanized Steel Sheet: ASTM A 653, with G60 hot-dip zinc coating.
- D. Galvanized Steel Mounting Devices: ASTM A 153, hot-dip galvanized after fabrication.
- E. Fasteners: Screws, bolts, and other devices of same material as accessory unit and tamper-and-theft resistant where exposed, and of galvanized steel where concealed.
- F. Chrome Plating: ASTM B 456, Service Condition Number SC 2 (moderate service).
- G. Mirrors: ASTM C 1503, Mirror Glazing Quality, clear-glass mirrors, nominal 6.0 mm thick.
- H. ABS Plastic: Acrylonitrile-butadiene-styrene resin formulation.

2.3 TOILET ACCESSORIES

- A. As indicated on Drawings.

2.4 FABRICATION

- A. General: Fabricate units with tight seams and joints, and exposed edges rolled. Hang doors and access panels with full-length, continuous hinges. Equip units for concealed anchorage and with corrosion-resistant backing plates.
- B. Keys: Provide universal keys for internal access to accessories for servicing and resupplying. Provide minimum of six keys.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Install accessories according to manufacturers' written instructions, using fasteners appropriate to substrate indicated and recommended by unit manufacturer. Install units level, plumb, and firmly anchored in locations and at heights indicated.
- B. Grab Bars: Install to withstand a downward load of at least 250 lbf, when tested according to method in ASTM F 446.

3.2 ADJUSTING AND CLEANING

- A. Adjust accessories for unencumbered, smooth operation. Replace damaged or defective items.
- B. Remove temporary labels and protective coatings.
- C. Clean and polish exposed surfaces according to manufacturer's written recommendations.

END OF SECTION 102800

SECTION 102819 - TUB AND SHOWER ENCLOSURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes frameless shower doors.

1.3 SUBMITTALS

- A. Product Data: For each type of product.
 - 1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for shower doors and enclosures.
- B. Samples for Initial Selection: For each type of exposed finish.
- C. Samples for Verification: For tub and shower doors and enclosures.
 - 1. Each type of mounting and operating hardware; full size.
 - 2. Glass and glazing; 12 inches (305 mm) square.
 - 3. Trim; 12-inch (305-mm) lengths.

1.4 FIELD CONDITIONS

- A. Verify dimensions by field measurements before fabrication and indicate on Shop Drawings.

1.5 WARRANTY

- A. Special Warranty: Manufacturer agrees to repair or replace components of tub and shower doors and enclosures that fail in materials or workmanship within specified warranty period, without monetary limitation.
 - 1. Failures include, but are not limited to, the following:
 - a. Structural failures including excessive deflection.
 - b. Deterioration of metals, metal finishes, and other materials beyond normal use.
 - 2. Warranty Period: Two years from date of Substantial Completion.
- B. Installer's warranty: 1 year.

PART 2 - PRODUCTS

2.1 SHOWER ENCLOSURES

- A. Manufacturers:
1. Oasis Show Doors. (Basis of Design)
 2. CR Laurence.
 3. Or equal.

2.2 FRAMELESS ENCLOSURES

- A. Product: Frameless Shower Doors by Oasis or equal.
1. Type: Spray panel with clip system, no header with wall-mounted hinges.
 2. Glazing: Standard clear, 3/8" thick safety tempered glass with polished edges.
 3. Aluminum: Extrusions are anodized aluminum to resist corrosion. Mildew Resistant Silicone used to seal extrusion to tile.
 4. Hardware: Hinges and handles are solid brass.
 - a. Standard commercial hardware includes through-the-glass D-pull and towel bar combo.
 - b. Finish: Satin Chrome.
 5. Width and Height: As indicated on Drawings.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Prepare and install per manufacturer's written instructions unless more stringent requirements are contained in GANA's "Glazing Manual."
- B. Clean substrates, removing projections, filling voids, and sealing joints.
- C. Set units level, plumb, and true to line, without warp or rack of frames and panels, and anchor securely in place.
- D. Fasten components securely in place, with provisions for thermal movement. Install with concealed fasteners unless otherwise indicated.
- E. Install components to drain and return water to tub or shower.
- F. Install doors to produce smooth operation and tight fit at contact points.
- G. Repair, refinish, or replace components damaged during installation.

3.2 ADJUSTING AND CLEANING

- A. Adjust operating parts and hardware for smooth, quiet operation and watertight closure. Lubricate hardware and moving parts.

OCFA Fire Station #4
Construction Documents

- B. Remove nonpermanent labels, and clean surfaces immediately after installation.

END OF SECTION 102819

SECTION 104400 - FIRE-PROTECTION SPECIALTIES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Portable fire extinguishers.
 - 2. Fire-protection cabinets for the following:
 - a. Portable fire extinguishers.
 - 3. Mounting brackets for fire extinguishers.

1.3 SUBMITTALS

- A. Product Data: Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for fire-protection cabinets.
 - 1. Fire Extinguishers: Include rating and classification.
 - 2. Fire-Protection Cabinets: Include roughing-in dimensions, details showing mounting methods, relationships of box and trim to surrounding construction, door hardware, cabinet type, trim style, and panel style.
- B. Samples for Initial Selection: For fire-protection cabinets with factory-applied color finishes.
- C. Samples for Verification: For each type of exposed factory-applied color finish required for fire-protection cabinets, prepared on Samples of size indicated below.
 - 1. Size: 6 by 6 inches square.
- D. Maintenance Data: For fire extinguishers and fire-protection cabinets to include in maintenance manuals.

1.4 QUALITY ASSURANCE

- A. Source Limitations: Obtain fire extinguishers and fire-protection cabinets through one source from a single manufacturer.
- B. NFPA Compliance: Fabricate and label fire extinguishers to comply with NFPA 10, 2007 Edition, "Portable Fire Extinguishers."
- C. Fire Extinguishers: Listed and labeled for type, rating, and classification by an independent testing agency acceptable to authorities having jurisdiction.
 - 1. Provide fire extinguishers approved, listed, and labeled by FMG.

OCFA Fire Station #4
Construction Documents

- D. Fire-Rated Fire-Protection Cabinets: Listed and labeled to comply with requirements of ASTM E 814 for fire-resistance rating of walls where they are installed.

1.5 COORDINATION

- A. Coordinate size of fire-protection cabinets to ensure that type and capacity of fire extinguishers indicated are accommodated.

1.6 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of portable fire extinguishers that fail in materials or workmanship within specified warranty period.
 - 1. Failures include, but are not limited to, the following:
 - a. Failure of hydrostatic test according to NFPA 10.
 - b. Faulty operation of valves or release levers.
 - 2. Warranty Period: 6 years.
- B. Installer Warranty: 1 year.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Fire Extinguishers and Cabinets: Subject to compliance with requirements, provide either the named product or an equal product by one of the other manufacturers specified.
 - 1. JL Industries, Inc. (Basis of Design)
 - 2. Larsen's Manufacturing Company.
 - 3. Potter Roemer; Div. of Smith Industries, Inc.
 - 4. Ansul.
 - 5. Or equal.

2.2 MATERIALS

- A. Cold-Rolled Steel Sheet: ASTM A 1008, Commercial Steel (CS), Type B.
- B. Tempered Break Glass: ASTM C 1048, Kind FT, Condition A, Type I, Quality q3, 1.5 mm thick minimum.

2.3 PORTABLE FIRE EXTINGUISHERS

- A. General: Provide fire extinguishers of type, size, and capacity for each fire-protection cabinet and mounting bracket indicated.
 - 1. Valves: Manufacturer's standard.
 - 2. Handles and Levers: Manufacturer's standard.

3. Instruction Labels: Include pictorial marking system complying with NFPA 10, Appendix B.
 4. Certification Tag: Provide fire extinguisher with valid certification test tag where fire extinguishers are fully charged and ready to be used.
- B. Dry Chemical Type: Cast steel tank, with pressure gage.
1. Class 2A-10B:C.
 2. Nominal Capacity: Provide largest capacity fire extinguisher that will fit in the cabinet, but 5 lbs. minimum.
 3. Finish: Baked enamel, red color.
 4. Use: General purpose.

2.4 FIRE-PROTECTION CABINET

- A. Product: Embassy Series by J. L. Industries.
1. Cabinet Type: Suitable for fire extinguisher.
 2. Cabinet Style: Recessed, trimless.
 - a. Tub: Cold-rolled steel.
 3. Mounting: Recessed. Provide Semi-recessed where recessed can't be provided.
 4. Door Style: Vertical Duo Door with tempered safety glass.
 5. Door Hardware: Manufacturer's accessible door-operating hardware of proper type for cabinet type, trim style, and door material and style indicated.
 - a. Provide manufacturer's standard.
 - b. Provide continuous hinge, of same material and finish as trim, permitting door to open 180 degrees.
 6. Break-Glass Strike: Manufacturer's standard metal strike, complete with chain and mounting clip, secured to cabinet.
 7. Door Lock: Cylinder lock, keyed alike to other cabinets.
 8. Identification: Lettering complying with authorities having jurisdiction for letter style, size, spacing, and location.
 - a. Identify fire extinguisher in fire protection cabinet with the words "FIRE EXTINGUISHER."
 - 1) Location: Applied to cabinet door.
 - 2) Application Process: Silk-screened.
 - 3) Orientation: Vertical.

2.5 MOUNTING BRACKETS

- A. Mounting Brackets: Manufacturer's standard galvanized steel, designed to secure fire extinguisher to wall or structure, of sizes required for types and capacities of fire extinguishers indicated, with plated or baked-enamel finish.
1. Color: Red.
- B. Identification: Lettering complying with authorities having jurisdiction for letter style, size, spacing, and location. Locate as indicated by Architect.
1. Identify bracket-mounted fire extinguishers with the words "FIRE EXTINGUISHER" in red letter.
 - a. Orientation: Vertical.

2.6 FABRICATION

- A. Fire-Protection Cabinets: Provide manufacturer's standard box (tub), with trim, frame, door, and hardware to suit cabinet type, trim style, and door style indicated.
 - 1. Weld joints and grind smooth.
 - 2. Construct fire-rated cabinets with double walls fabricated from 0.0428-inch- thick, cold-rolled steel sheet lined with minimum 5/8-inch- thick, fire-barrier material.
 - a. Provide factory-drilled mounting holes.
- B. Cabinet Doors: Fabricate doors according to manufacturer's standards, from materials indicated and coordinated with cabinet types and trim styles selected.
 - 1. Fabricate door frames with tubular stiles and rails and hollow-metal design, minimum 1/2 inch thick.
 - 2. Miter and weld perimeter door frames.

2.7 FINISHES, GENERAL

- A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
- B. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.
- C. Finish fire-protection cabinets after assembly.
- D. Appearance of Finished Work: Variations in appearance of abutting or adjacent pieces are acceptable if they are within one-half of the range of approved Samples. Noticeable variations in the same piece are not acceptable. Variations in appearance of other components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

2.8 STEEL FINISHES

- A. Surface Preparation: Clean surfaces of dirt, oil, grease, mill scale, rust, and other contaminants that could impair paint bond using manufacturer's standard methods.
- B. Baked-Enamel Finish: Immediately after cleaning and pretreating, apply manufacturer's standard two-coat, baked-enamel finish consisting of prime coat and thermosetting topcoat. Comply with paint manufacturer's written instructions for applying and baking to achieve a minimum dry film thickness of 2 mils.
 - 1. Color: As selected by Architect from manufacturer's full range.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine walls and partitions for suitable framing depth and blocking where cabinets will be installed.
- B. Examine fire extinguishers for proper charging and tagging.
 - 1. Remove and replace damaged, defective, or undercharged units.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Prepare recesses for recessed and semi-recessed fire-protection cabinets as required by type and size of cabinet and trim style.

3.3 INSTALLATION

- A. General: Install fire-protection specialties in locations and at mounting heights indicated or, if not indicated, at heights indicated on Drawings.
- B. Fire-Protection Cabinets: Fasten fire-protection cabinets to structure, square and plumb.
 - 1. Unless otherwise indicated, provide recessed fire-protection cabinets. If wall thickness is not adequate for recessed cabinets, provide semirecessed fire-protection cabinets.
 - 2. Provide inside latch and lock for break-glass panels.
 - 3. Fasten mounting brackets to inside surface of fire-protection cabinets, square and plumb.
- C. Mounting Brackets: Fasten mounting brackets to surfaces, square and plumb, at locations indicated.

END OF SECTION 104400

SECTION 113034 – CEILING FANS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. The ceiling-mounted circulation fan is the model scheduled with the capacities indicated. The fan shall be furnished with mounting hardware, a remote control, and sending Technology.
 - 2. Installation of the fan, wireless network, miscellaneous or structural metal work (if required), field electrical wiring, cable, conduit, fuses and disconnect switches, other than those addressed in the installation scope of work, shall be provided by others.
 - 3. Consult the appropriate installation scope of work for information on the available installation options, overview of customer and installer responsibilities, and details on installation site requirements.
- B. Related Sections:
 - 1. Division 26 sections for power and control wiring.

1.3 SUBMITTALS

- A. Product Data: Specification sheets on the ceiling-mounted fan, specifying electrical and installation requirements, features and benefits, and controller information.
- B. Shop Drawings: Drawings detailing product dimensions, weight, and attachment methods.
- C. Installation and maintenance Manuals: The manufacturer shall furnish a copy of all installation, operation, and maintenance instructions for the fan.

1.4 QUALITY ASSURANCE

- A. Certifications
 - 1. Safety:
 - a. The fan assembly, as a system, shall be Intertek/ETL-certified and built pursuant to the following standards.
 - 1) UL 1004-1. Standard for Safety for Rotating Electrical Machines - Part 1 General Requirements.
 - 2) UL 1004-3. Standard for Safety for Thermally Protected Motors.
 - 3) UL 1004-7. Standard for Safety for Electronically Protected Motors.

2. Sustainability Certification:
 - a. ENERGY STAR® certification – ENERGY STAR Most Efficient 2015.

- B. Manufacturer Qualifications
 1. ISO 9001-certified.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver product in original, undamaged packaging with identification labels intact. The fan shall be new, free from defects, and factory tested.
- B. The fan and its components must be stored in a safe, dry location until installation.

1.6 WARRANTY

- A. The manufacturer shall replace any products or components defective in material or workmanship, free of charge to the customer (including transportation charges within the USA, F.O.B. Lexington, KY), pursuant to the complete terms and conditions of the Non-Prorated Warranty in accordance to the following schedule:
 1. Industrial and Commercial Installations:
 - a. Motor: 2 years.
 - b. All other components: 1 year.
 - c. Labor to repair the defect will be provided free of charge at the Haiku Home service center for defects arising during the Warranty Period.
- B. Installer's Warranty: 1 year.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Ceiling Fans:
 1. i6 ceiling fans by Big Ass Fans.
 2. Or equal.

2.2 CEILING FANS

- A. Product: i6 ceiling fans by Big Ass Fans or equal.
 1. Diameter: 60 inch, MK-161-05.
 2. Environment: Indoor.
 3. Mount: Flush.
 4. Finish: A728, black.
 5. Downrod: Blank, flush.
 6. LED Light: Blank, no LED light.
 7. Remote: Standard.

PART 3 - EXECUTION

3.1 REPARATION

- A. The fan location must have an appropriate ceiling-mounted outlet box marked, “Acceptable for Fan Support.” If there is not an appropriate outlet box already installed at the location, one must be installed on a ceiling joist or beam and be properly wired. Additional mounting options may be available. Consult the installation guide for additional details.
- B. The fan location must be free from obstacles such as lights, cables, or other building components.
- C. Check the fan location for proper electrical requirements. Consult the installation guide for appropriate circuit requirements.

3.2 INSTALLATION

- A. Install the fan according to the manufacturer’s installation guide, which includes acceptable mounting methods.
- B. Required Distances
 - 1. Airfoils must be at least 7 ft above the floor.
 - 2. The airfoils must have at least 2 ft clearance from all obstructions.
 - 3. The fan must be within a 30 ft radius of where the mobile digital device will be used for control. (Line-of-sight obstructions may create a smaller maximum range.)
 - 4. The fan shall not be located where it will be subjected to rain or continuous wind gusts, or in close proximity to the outputs of HVAC systems or radiant heaters. Consult the installation guide for additional details.

END OF SECTION 113034

SECTION 122413 - ROLLER WINDOW SHADES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes:
 - 1. Window shades.

1.3 SUBMITTALS

- A. Product Data: For each type of product indicated. Include styles, material descriptions, construction details, dimensions of individual components and profiles, features, finishes, and operating instructions.
- B. Shop Drawings: Show location and extent of roller shades. Include elevations, sections, details, and dimensions not shown in Product Data. Show installation details, mountings, attachments to other work, operational clearances, and relationship to adjoining work.
- C. Samples for Initial Selection: For each colored component of each type of shade indicated.
 - 1. Include similar Samples of accessories involving color selection.
- D. Samples for Verification:
 - 1. Complete, full-size operating unit not less than 16 inches wide for each type of roller shade indicated.
 - 2. For the following products:
 - a. Shade Material: Not less than 3 inches square, with specified treatments applied. Mark face of material.
 - b. Valance: Full-size unit, not less than 12 inches long.
- E. Window Treatment Schedule: For roller shades. Use same designations indicated on Drawings.
- F. Product Certificates: For each type of roller shade, signed by product manufacturer.
- G. Qualification Data: For Installer.
- H. Product Test Reports: For each type of roller shade.
- I. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, for each type of roller shade.
- J. Maintenance Data: For roller shades to include in maintenance manuals. Include the following:

OCFA Fire Station #4
Construction Documents

1. Methods for maintaining roller shades and finishes.
2. Precautions about cleaning materials and methods that could be detrimental to fabrics, finishes, and performance.
3. Operating hardware.

1.4 QUALITY ASSURANCE

- A. Installer Qualifications: Fabricator of products.
- B. Source Limitations: Obtain roller shades through one source from a single manufacturer.
- C. Fire-Test-Response Characteristics: Provide roller shade band materials with the fire-test-response characteristics indicated, as determined by testing identical products per test method indicated below by UL or another testing and listing approved by CSFM.
 1. Flame-Resistance Ratings: Passes NFPA 701.
- D. Product Standard: Provide roller shades complying with WCMA A 100.1.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver shades in factory packages, marked with manufacturer and product name, fire-test-response characteristics, and location of installation using same designations indicated on Drawings and in a window treatment schedule.

1.6 PROJECT CONDITIONS

- A. Environmental Limitations: Do not install roller shades until construction and wet and dirty finish work in spaces, including painting, is complete and ambient temperature and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use.
- B. Field Measurements: Where roller shades are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication and indicate measurements on Shop Drawings. Allow clearances for operable glazed units' operation hardware throughout the entire operating range. Notify Architect of discrepancies. Coordinate fabrication schedule with construction progress to avoid delaying the Work.

1.7 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of roller shades that fails in materials or workmanship within specified warranty period.
 1. Warranty Period: Lifetime.
- B. Installer's Warranty: 1 year.

1.8 EXTRA MATERIALS

- A. Furnish extra materials described below that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Rollers Shades: Before installation begins, for each size, color, texture, and pattern indicated, full-size units equal to 5 percent of amount installed, but not fewer than 2 units.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Roller Shades: Subject to compliance with requirements, provide either the named product or an equal product by one of the other manufacturers specified.
 - 1. MechoShade Systems, Inc. (Basis of Design)
 - 2. Draper Inc.
 - 3. Silent Gliss USA, Inc.
 - 4. Hunter Douglas.
 - 5. Or equal.

2.2 ROLLER SHADES

- A. Type: Manually operated shades:
- B. Blackout Shade cloths:
 - 1. ThermoVeil 0700 series, blackout material, washable and colorfast laminated and embossed vinyl coated fabric, 0.012 inches thick blackout material and weighing 0.81 lbs. per square yard, with a minimum of 62 threads per square inch.
 - 2. Content: 79% vinyl, 21% polyester core.
 - 3. Transparency: Opaque.
 - 4. Color: As selected by Architect from manufacturer's standard colors.

2.3 ACCESSORIES

- A. Fascia:
 - 1. Continuous removable extruded aluminum fascia that attaches to shade mounting brackets without the use of adhesives, magnetic strips, or exposed fasteners.
 - 2. Fascia shall be able to be installed across two or more shade bands in one piece.
 - 3. Fascia shall fully conceal brackets, shade roller and fabric on the tube.
 - 4. Provide bracket / fascia end caps where mounting conditions expose outside of roller shade brackets.
 - 5. Notching of Fascia for manual chain shall not be acceptable.
- B. Room Darkening Side and Sill Channels:
 - 1. Extruded aluminum with polybond edge seals and SnapLoc-mounting brackets and with concealed fastening. Exposed fastening is not acceptable. Channels shall accept one-piece exposed blackout hembar with vinyl seal to assure side light control and sill light control.

- a. MechoShade side channels, 1-15/16 inches wide by 1-3/16 inches deep, two-band center channels, 2-5/8 inches wide by 1-3/16 inches deep. The 2-5/8-inch double-center channels may be installed at center-support positions of multi-band-shade ElectroShades. MechoShade side channels 2-5/8 inch may be used as center supports for ElectroShades; shadebands up to 8 high. For shadebands over 8 feet, provide ElectroShade side channels.

2.4 SHADE BAND

- A. Shade Bands: Construction of shade band includes the fabric, the hem weight, hem-pocket, shade roller tube, and the attachment of the shade band to the roller tube. Sewn hems and open hem pockets are not acceptable.
 1. Hem Pockets and Hem Weights: Fabric hem pocket with RF-welded seams (including welded ends) and concealed hem weights. Hem weights shall be of appropriate size and weight for shade band. Hem weight shall be continuous inside a sealed hem pocket. Hem pocket construction and hem weights shall be similar, for all shades within one room.
 2. Shade Band and Shade Roller Attachment:
 - a. Use extruded aluminum shade roller tube of a diameter and wall thickness required to support shade fabric without excessive deflection. Roller tubes less than 1.55 inch in diameter for manual shades, and less than 2.55 inches for motorize shades are not acceptable.
 - b. Provide for positive mechanical engagement with drive / brake mechanism.
 - c. Provide for positive mechanical attachment of shade band to roller tube; shade band shall be made removable / replaceable with a "snap-on" snap-off" spline mounting, without having to remove shade roller from shade brackets.
 - d. Mounting spline shall not require use of adhesives, adhesive tapes, staples, and/or rivets.
 - e. Any method of attaching shade band to roller tube that requires the use of: adhesive, adhesive tapes, staples, and/or rivets are not acceptable.

2.5 SHADE FABRICATION

- A. Fabricate units to completely fill existing openings from head to sill and jamb-to-jamb, unless specifically indicated otherwise.
- B. Fabricate shadecloth to hang flat without buckling or distortion. Fabricate with heat-sealed trimmed edges to hang straight without curling or raveling. Fabricate unguided shadecloth to roll true and straight without shifting sideways more than 1/8 inch in either direction per 8 feet of shade height due to warp distortion or weave design. Fabricate hem as follows:
 1. Standard concealed hem bar.

2.6 COMPONENTS

- A. Access and Material Requirements:
 1. Provide shade hardware allowing for the removal of shade roller tube from brackets without removing hardware from opening and without requiring end or center supports to be removed.

2. Provide shade hardware that allows for removal and re-mounting of the shade bands without having to remove the shade tube, drive or operating support brackets.
 3. Use only Delrin engineered plastics by DuPont for all plastic components of shade hardware. Styrene based plastics, and /or polyester, or reinforced polyester will not be acceptable.
- B. Manual Operated Chain Drive Hardware and Brackets:
1. Provide for universal, regular and offset drive capacity, allowing drive chain to fall at front, rear or non-offset for all shade drive end brackets. Universal offset shall be adjustable for future change.
 2. Provide hardware capable for installation of a removable fascia, for both regular and/or reverse roll, which shall be installed without exposed fastening devices of any kind.
 3. Provide shade hardware system that allows for removable regular and/or reverse roll fascias to be mounted continuously across two or more shade bands without requiring exposed fasteners of any kind.
 4. Provide shade hardware system that allows for operation of multiple shade bands (multi-banded shades) by a single chain operator, subject to manufacturer's design criteria. Connectors shall be offset to assure alignment from the first to the last shade band.
 5. Provide shade hardware system that allows multi-banded manually operated shades to be capable of smooth operation when the axis is offset a maximum of 6 degrees on each side of the plane perpendicular to the radial line of the curve, for a 12 degrees total offset.
 6. Provide positive mechanical engagement of drive mechanism to shade roller tube. Friction fit connectors for drive mechanism connection to shade roller tube are not acceptable
 7. Provide shade hardware constructed of minimum 1/8-inch thick plated steel or heavier as required to support 150 percent of the full weight of each shade.
 8. Drive Bracket / Brake Assembly:
 - a. MechoShade Drive Bracket model shall be fully integrated with all MechoShade accessories, including, but not limited to: SnapLoc fascia, room darkening side / sill channels, center supports and connectors for multi-banded shades.
 - b. M5 drive sprocket and brake assembly shall rotate and be supported on a welded 3/8 inch steel pin.
 - c. The brake shall be an over-running clutch design which disengages to 90 percent during the raising and lowering of a shade. The brake shall withstand a pull force of 50 lbs. in the stopped position.
 - d. The braking mechanism shall be applied to an oil-impregnated hub on to which the brake system is mounted. The oil impregnated hub design includes an articulated brake assembly, which assures a smooth, non-jerky operation in raising and lowering the shades. The assembly shall be permanently lubricated. Products that require externally applied lubrication and or not permanently lubricated are not acceptable.
 - e. The entire M5 assembly shall be fully mounted on the steel support bracket, and fully independent of the shade tube assembly, which may be removed and reinstalled without effecting the roller shade limit adjustments.
 - f. Drive Chain: #10 qualified stainless steel chain rated to 90 lb. minimum breaking strength. Nickel plate chain shall not be accepted.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances, operational clearances, and other conditions affecting performance.
 - 1. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 ROLLER SHADE INSTALLATION

- A. Install roller shades level, plumb, and aligned with adjacent units according to manufacturer's written instructions, and located so shade band is not closer than 2 inches to interior face of glass. Allow clearances for window operation hardware.

3.3 ADJUSTING

- A. Adjust and balance roller shades to operate smoothly, easily, safely, and free from binding or malfunction throughout entire operational range.

3.4 CLEANING AND PROTECTION

- A. Clean roller shade surfaces after installation, according to manufacturer's written instructions.
- B. Provide final protection and maintain conditions, in a manner acceptable to manufacturer and Installer, that ensure that roller shades are without damage or deterioration at time of Substantial Completion.
- C. Replace damaged roller shades that cannot be repaired, in a manner approved by Architect, before time of Substantial Completion.

END OF SECTION 122413

APPENDIX



AMBIENT ENVIRONMENTAL, INC.

RECEIVED
OCT - 9 2007
OCFA/Property Management

**CONFIDENTIAL AND PRIVILEGED
ASBESTOS SURVEY**

**For the property located at:
Fire Station #4
2 California Avenue
Irvine, California**

Prepared for:

**Orange County Fire Authority
Support Services/Property Management
1 Fire Authority Road Service Center
Irvine, California 92602
Attn: Ms. Helen Vesperman**

Prepared by:

**Ambient Environmental Inc.
1464 Sixth Street
Norco, California 92860**

September 31, 2007

Ambient Environmental Inc. Project #07-1679

**John L. Payne
California Certified Asbestos
Consultant #93-1226**

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1.0 EXECUTIVE SUMMARY

Ambient Environmental Inc. was retained by the Orange County Fire Authority to conduct a comprehensive interior asbestos survey for the property located at: Fire Station #4 2 California Avenue in Irvine, California.

The survey was conducted on September 7th, 2007, by Mr. John L. Payne a California Certified Asbestos Consultant and a United States Environmental Protection Agency (USEPA) certified building inspector for Asbestos-Containing Building Materials (ACBM).

The purpose of the asbestos survey was to locate and identify accessible friable and non-friable suspect asbestos-containing materials within the fire station interior. Once a visual inspection was performed, representative bulk samples were obtained from each homogeneous material. The sample location, material type, friability and condition of material were documented.

Asbestos bulk sampling were obtained in accordance with the USEPA established guidelines document, "Guidance for Controlling Asbestos-Containing Materials in Buildings" (USEPA 560/5-85-024, 1985) and USEPA 40 CFR Part 763 "Asbestos-Containing Materials in Schools, Final Rule" (AHERA). Each bulk sample was analyzed for asbestos content by Polarized Light Microscopy (PLM). A total of 5 bulk samples were obtained for the subject property and submitted to Forensic Analytical for analysis.

The Orange County Fire Authority personnel provided keys and access to the property. All accessible areas of the building interior were visually inspected. ACBM, not identified in this report, may be present within hidden and/or concealed areas of the building. Laboratory analysis revealed detectable levels of asbestos in 1 type of materials:

1. Drywall and Joint Compound

Locations and conditions of the materials assessed and sampled can be found in the Material Inventory (Tables).

4.0 SURVEY PROCEDURES

Ambient Environmental Inc. conducted a comprehensive asbestos interior survey for the property located at: Fire Station #4 2 California Avenue in Irvine, California. All accessible areas of the building interior were surveyed for asbestos. Intrusive sampling of areas which would have required demolition and/or damage to building components finishes such as hard enclosures, laminates, floor coverings, ceiling tile, gasket material, etc. were not sampled. ACBM not identified in this report, may be present within hidden or concealed areas of the building.

ACBM identification was performed by entering each functional space and assessing all structural/mechanical components and architectural finishes. The physical conditions, friability, accessibility, activity and damage of suspect ACBM was also assessed and documented.

For reporting purposes, space designations were assigned each functional space within the facilities using the pre-existing designation on doors or as indicated by the on-site personnel. Where neither was available, the space was labeled by the inspector and so indicated in this report. The following procedures were performed:

- A visual assessment to identify the location, type and quantity of, friable and non-friable asbestos building materials.
- Obtain representative bulk samples from suspect ACBM.
- Samples were analyzed by an independent accredited laboratory for the presence of asbestos by PLM.
- Present all survey results in a written report including recommendation, locations and laboratory results.

All findings, recommendations, and analytical data presented in this report are based on the information (assessment and sampling data) obtained by our inspector during the survey.

3.0 BULK SAMPLING PROCEDURES

Each suspect ACBM identified during the visual survey, were sampled in accordance with sampling guidelines established by the USEPA. The following summarizes the sampling procedures utilized.

- Building materials were categorized into homogeneous materials. A homogeneous material is defined as being uniform in texture, color, and date of application.
- A sampling scheme was developed based upon the location and quantities of the various homogeneous materials.
- Bulk samples were collected by extracting a representative section of each selected building material, placing the selected building material into a sampling container and assigning a unique sample number to each sample. The samples were then placed into a sealed shipping container for delivery to an accredited laboratory for analysis by PLM.
- Personnel performed proper decontamination procedures to prevent the spread of secondary contamination.
- Each bulk sample was recorded on a bulk sample log and possession of the samples was tracked by a chain of custody record.

The reported laboratory results in this report are a visual estimate by area of asbestos concentration. Results for heterogeneous samples examined by component are reported as a composite. The lower limit of reliable detection for this method is 1%. Samples, which contain more than 1% asbestos are reported in 5% ranges. Samples, which contain asbestos in a concentration lower than the limit of reliable detection (<1%) are "Trace."

All bulk samples were analyzed by PLM in accordance with the "Interim Method for the Determination of Asbestos in Bulk Insulation Samples EPA – 600/M4-82-020" dated December 1982 and adopted by the National Voluntary Laboratory Accreditation Program (NVLAP) Title 15, part 7 of the Code of Federal Register as affiliated with the National Institute for Standards and Testing (NIST).

Five bulk samples were obtained from the subject property and analyzed for asbestos content by Forensic Analytical of Rancho Dominguez, California. Forensic Analytical is accredited by the American Industrial Hygiene Association (AIHA), National Voluntary Laboratory Accreditation Program (NVLAP), National Institute of Standards and Testing (NIST), and is a successful participant in the Proficiency Analytical Testing Program (Pat).

4.0 POSITIVE ASBESTOS SAMPLE RESULTS AND LOCATION

Material	Sample Number	Asbestos Content	Location of Material	Friable	Damage
Drywall and Joint Compound	03 04 05	Trace Chrysotile	Throughout Interior	No	No

5.0 NEGATIVE ASBESTOS SAMPLE RESULTS AND LOCATION

Material	Sample Number	Location of Material	Damage
Vinyl Sheet Flooring	01	Throughout Interior	No
Baseboard and Mastic	02	Throughout Interior	No

6.0 HAZARD ASSESSMENTS OF (ACM) MATERIALS

Material	Location of Material	Hazard
Drywall and Joint Compound	Throughout Interior	Good

Good - Material shows little or no damage and requires no remedial action.

Moderate - Material is somewhat damaged and is in need of minor repairs.

Significantly Damaged - Material is in need of immediate remedial action.

7.0 RECOMMENDATIONS

It is Ambient Environmental, Inc.'s professional opinion that all Asbestos Containing Building Materials (ACBM) can be managed in place. If the ACBM are to remain at the facility, then a Asbestos Management Program should be implemented. Notification requirements in accordance with AB3713 and AB1564 and posting requirements in accordance with Proposition 65 should also be implemented and maintained.

Maintenance, construction and repair personnel should be made aware of the presence of ACBM, and instructed them not to disturb and/or damage the ACBM. Current federal and state regulations require any repair, renovation and/or demolition of any ACBM shall be conducted only by workers and/or contractors who have been properly trained in the correct handling of asbestos. All asbestos work should proceed under the guidance or direction of an independent State Certified Asbestos Consultant with oversight performed by a State Certified Site Surveillance Technician.

The ACBM identified during this survey are in good condition, and are not likely to pose an environmental or public health risk so long as the material is maintained in it's present condition.

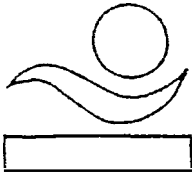
Ambient Environmental Inc. warrants that our services are performed, within the limits prescribed by our client, with the usual thoroughness and competence of the engineering profession.

The recommendations in this report are professional opinions based solely on visual observations and analytical analyses, as described in this report. Because the scope of services was limited to accessible ACBMs, intrusive investigative techniques were not contracted for, it is possible that unrecognized ACBMs may exist in the facilities.

Opinions and recommendations presented herein apply to site conditions existing at the time of our investigation and those reasonably foreseeable, they cannot necessarily apply to site changes of which this office is not aware of and/or has not had the opportunity to evaluate.

APPENDIX A

**CHAIN OF CUSTODY
AND BULK SAMPLE LOG**



AMBIENT ENVIRONMENTAL, INC.

Asbestos / Lead Field Services
Indoor Air Quality Services
Phase I Site Assessments
Lab Services

1464 6TH STREET
NORCO, CALIFORNIA 92860
* TEL: (951) 272-4730
* FAX: (951) 272-4731

ASBESTOS BULK SAMPLE LOG Page ___ of ___

Client Name: OCFA

Project Location: 2 CALIFORNIA AVE IRVINE STATION 4

Date: 9-7-07 Field Technician: J. Payne

Project Number: 07-1679 Priority: ASAP 24 HR 3-5 Days

SAMPLE NUMBER	SAMPLE LOCATION	MATERIAL DESCRIPTION	SQUARE FOOTAGE
01	KITCHEN	Sheet Flooring	
02	KITCHEN	BASEBOARD	
03	HALL	DRYWALL / JOINT compound	
04	BEDROOM AREA		
05	KITCHEN		

Chain of Custody Analytical Method: PLM: TEM: Other:

Sampled By		Date	Time
Relinquished By		Date	Time
Received By		Date	Time
Relinquished By		Date	Time
Received By		Date	Time

Date 9/10/07 Time 10:25 AM F/13

APPENDIX B

**LABORATORY
CERTIFICATES OF ANALYSIS**



Bulk Asbestos Analysis

(EPA Method 600/R-93-116, Visual Area Estimation)

Ambient Environmental Inc
J.Payne/J.Lumpkin
1464 6th Street

Norco, CA 92860

Client ID: 5697
Report Number: B103670
Date Received: 09/10/07
Date Analyzed: 09/10/07
Date Printed: 09/10/07
First Reported: 09/10/07

Job ID/Site: 07-1679, OCFA, 2 California Ave., Irvine - Station 4

FASI Job ID: 5697

Date(s) Collected: 09/07/2007

Total Samples Submitted: 5

Total Samples Analyzed: 5

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
01	50411039						
Layer: Grey Sheet Flooring							ND
Layer: Fibrous Backing							ND
Layer: Beige Mastic							ND
Layer: Grey Non-Fibrous Material							ND
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (20 %)	Fibrous Glass (5 %)	Synthetic (10 %)					
02	50411040						
Layer: Black Non-Fibrous Material							ND
Layer: Beige Mastic							ND
Layer: White Skimcoat/Joint Compound							ND
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace)							
03	50411041						
Layer: White Drywall							ND
Layer: Off-White Skimcoat/Joint Compound		Chrysotile	2 %				
Layer: Paint							ND
Total Composite Values of Fibrous Components:		Asbestos (Trace)					
Cellulose (20 %)							
04	50411042						
Layer: White Drywall							ND
Layer: Off-White Skimcoat/Joint Compound		Chrysotile	2 %				
Layer: Paint							ND
Total Composite Values of Fibrous Components:		Asbestos (Trace)					
Cellulose (20 %)							
05	50411043						
Layer: White Drywall							ND
Layer: Off-White Skimcoat/Joint Compound		Chrysotile	2 %				
Layer: Paint							ND
Total Composite Values of Fibrous Components:		Asbestos (Trace)					
Cellulose (20 %)							



Forensic Analytical

Report Number: B103670

Date Printed: 09/10/07

Client Name: Ambient Environmental Inc

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
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Steven Takahashi, Laboratory Supervisor, Rancho Dominguez Laboratory

Note: Limit of Quantification ('LOQ') = 1%. 'Trace' denotes the presence of asbestos below the LOQ. 'ND' = 'None Detected'.

Analytical results and reports are generated by Forensic Analytical at the request of and for the exclusive use of the person or entity (client) named on such report. Results, reports or copies of same will not be released by Forensic Analytical to any third party without prior written request from client. This report applies only to the sample(s) analyzed. Supporting laboratory documentation is available upon request. This report must not be reproduced except in full, unless approved by Forensic Analytical. The client is responsible for the use and interpretation of test results and reports requested from Forensic Analytical. This report must not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. Government. Forensic Analytical is not able to assess the degree of hazard resulting from materials analyzed. Forensic Analytical reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified. All samples were received in acceptable condition unless otherwise noted.

March 23, 1998
Project No. 984P253-4

Ms. Karen Peters
Orange County Fire Authority
180 South Water Street
Orange, California 92666-2175

SUBJECT: FIRE STATION NO. 4 PRE-RENOVATION ASBESTOS SURVEY

Dear Ms. Peters:

Woodward-Clyde International-Americas (Woodward-Clyde) conducted a pre-renovation asbestos survey (hereafter Survey) at Fire Station No. 4 located at 2 California Avenue in Irvine, California on February 5, 1998. The objective of the Survey was to locate and assess the condition of accessible asbestos-containing materials (ACM) in compliance with Cal-OSHA regulations and South Coast Air Quality Management District (SCAQMD) Rule 1403, "Asbestos Emissions from Renovation/Demolition Activities."

BUILDING DESCRIPTION

Fire Station No. 4 has a slab on grade foundation with a wood frame structure. The floor coverings consist of 12-inch by 12-inch floor tiles and carpeting. The interior walls are gypsum board and the exterior walls are stucco and decorative masonry blocks. The ceilings consist of glued-on acoustical material and drywall. There are four HVAC units with forced air and ducted return. The roof is built-up.

ASBESTOS SAMPLING

Woodward-Clyde reviewed the asbestos survey performed by Dynamac Corporation dated October 1990 and drawings of the proposed renovation work supplied by EQE International in order to determine what additional sampling was necessary to confirm the presence of ACM.

Suspect friable and non-friable building materials were surveyed and grouped into homogeneous areas on the basis of their appearance. A visual and tactile investigation of the suspect materials was performed to assess damage and friability and additional samples were collected for asbestos analysis when necessary. The number of samples needed to classify a material as non-ACM was based on the following EPA AHERA protocol (40 CFR 763.86):

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 Page 2

Type of Material	Amount of Material	Minimum Number of Samples
Surfacing Material is any material that is sprayed, troweled-on or otherwise applied to surfaces, such as acoustical plaster on ceilings and fireproofing materials on structural members, or other materials on surfaces .	≤ 1000 square feet	3
	>1000 and ≤ 5000 square feet	5
	> 5000 square feet	7
Thermal Systems Insulation (TSI) is any material that is applied to pipes, fittings, boilers, breaching, tanks, ducts, or other structural components to prevent heat loss or gain.	Any (in general)	3
	Patch less that 6 linear or square feet	1
	Elbows	Sufficient to Determine
Miscellaneous Material is any material that is not included in surfacing or TSI categories. This includes, but is not limited to wallboard, floor tile and sheeting, roofing and siding shingles, and construction mastics.	Any	Sufficient to Determine

Dynamac Corporation collected nine (9) bulk samples of suspect ACM for analysis in their October 1990 survey. Woodward-Clyde collected five (5) additional samples of suspect ACM for a total of fourteen (14) samples collected from Fire Station No. 4. After collection, the samples were placed into airtight sample bags and submitted to ITEK Enviro Services, Inc. (ITEK) for analysis. ITEK is accredited by the National Institute of Standards and Technologies (NIST) through participation in the National Voluntary Laboratory Accreditation Program (NAVLAP). The samples were analyzed for asbestos by polarized light microscopy (PLM) using the method described in the "Interim Method for Determination of Asbestos in Bulk Insulation Samples", 40 CFR, Part 763, Appendix E to Subpart E.

CONCLUSIONS AND RECOMMENDATIONS

Based on the previous survey and the laboratory data, the subject building contains ACM that must be removed before the proposed renovation work is started. Descriptions of the identified ACM are listed in the attached Table 1. Approximate ACM quantities may be obtained from the Seismic Structural Upgrade Diagrams for Fire Station No. 4 prepared by EQE International. All other accessible building materials tested negative for asbestos, the results of which are listed in the attached Table 2.

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Before the proposed renovation work commences on the subject building, Woodward-Clyde recommends that the following actions be taken:

- Distribute a notice to all employees, and contractors in accordance with Section 25915 et seq. of the California Health and Safety Code that discloses the presence of asbestos and lists general procedures and handling restrictions.
- Employ a licensed asbestos abatement contractor to perform asbestos abatement to perform the removal activities in accordance with the specifications that Woodward-Clyde has previously provided.
- Employ a State Certified Asbestos Consultant with no financial ties to the abatement contractor to ensure that the abatement is performed in accordance with State and local regulations.

If the proposed renovation work is postponed or shelved and the ACM is not going to be removed shortly, then Woodward-Clyde recommends that an operations and maintenance program be developed and implemented to control exposure to asbestos fibers.

Attached herein are the following items: 1) Table 1 - Asbestos Containing Materials, 2) Table 2 - Non-Asbestos Containing Materials, 3) Table 3 - Asbestos Bulk Sampling Data Sheets; 4) laboratory results with chain-of-custody records, and 5) copy of the October 1990 Dynamac Corporation asbestos survey.

If you have any questions regarding the field work or other project related items, please contact the undersigned at (714) 835-6886.

Very truly yours,

WOODWARD-CLYDE INTERNATIONAL-AMERICAS

Ronald Miller
California Certified Asbestos Consultant #92-0470

TABLE 1 ASBESTOS CONTAINING MATERIALS

FIRE STATION NO. 4

INTERIOR	DESCRIPTION
CEILING	12 in. x 12 in. Ceiling Tile Mastic
WALLS	Drywall <i>contradicts Dynamac</i>
FLOOR	12 in. x 12 in. White Floor Tile 12 in. x 12 in. Beige Floor Tile Floor Tile Mastic
OTHER	Pipe Fitting Insulation

EXTERIOR	DESCRIPTION
WALLS	
ROOF	Roofing Flashing/Roofing Materials
SOFFITS	
OTHER	

TABLE 2
NON-ASBESTOS CONTAINING MATERIALS
FIRE STATION NO. 4

INTERIOR	DESCRIPTION
CEILING	
WALLS	
FLOOR	
OTHER	HVAC Duct Tape

EXTERIOR	DESCRIPTION
WALLS	Stucco
ROOF	
SOFFITS	
OTHER	

TABLE 3 ASBESTOS BULK SAMPLING DATA SHEETS

Sheet 1 of 2

Date: February 3, 1998

Project: Orange County Fire Station
 Building: Station #4
 Address: #2 California

Industrial Hygienist and California Certified
 Asbestos Consultant and No: Ron Miller, Cert. # 207160470C
 Job No.: 984P253

Irvine, California

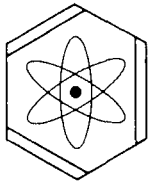
Floor	Sample Number	Material Sampled	Sample Location	Material			Photo	Quantity	Results
				Friable	Condition	Accessibility			
1st	FS-4-01	HVAC Duct Wrap	2 Units on North Side	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Good <input checked="" type="checkbox"/> Fair <input type="checkbox"/> Poor <input type="checkbox"/>	High <input type="checkbox"/> Med <input checked="" type="checkbox"/> Low <input type="checkbox"/>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		None Detected ✓
1st	FS-4-02	HVAC Duct Wrap		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Good <input checked="" type="checkbox"/> Fair <input type="checkbox"/> Poor <input type="checkbox"/>	High <input type="checkbox"/> Med <input checked="" type="checkbox"/> Low <input type="checkbox"/>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		None Detected ✓
1st	FS-4-03	HVAC Duct Wrap		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Good <input checked="" type="checkbox"/> Fair <input type="checkbox"/> Poor <input type="checkbox"/>	High <input type="checkbox"/> Med <input checked="" type="checkbox"/> Low <input type="checkbox"/>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		None Detected ✓

TABLE 3 ASBESTOS BULK SAMPLING DATA SHEETS

Project: Orange County Fire Station
Building: Station #4

Sheet 2 of 2
Date: February 3, 1998
Job No.: 984P253

Floor	Sample Number	Material Sampled	Sample Location	Material			Photo	Quantity	Results
				Friable	Condition	Accessibility			
1st	FS-4-04	Stucco	Northeast Corner	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Good <input checked="" type="checkbox"/> Fair <input type="checkbox"/> Poor <input type="checkbox"/>	High <input checked="" type="checkbox"/> Med <input type="checkbox"/> Low <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		None Detected ✓
1st	FS-4-05	Stucco	West Side, North End	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Good <input checked="" type="checkbox"/> Fair <input type="checkbox"/> Poor <input type="checkbox"/>	High <input checked="" type="checkbox"/> Med <input type="checkbox"/> Low <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		None Detected ✓
1st	FS-4-05	Stucco	South Side	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Good <input checked="" type="checkbox"/> Fair <input type="checkbox"/> Poor <input type="checkbox"/>	High <input checked="" type="checkbox"/> Med <input type="checkbox"/> Low <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		None Detected ✓



Itek Enviro Services, Inc.

Industrial Hygiene and Environmental Laboratory

-1-

02/09/98

WOODWARD-CLYDE CONSULTANTS
Attn: Mr. Ron Miller
2020 E. First St., Ste 400
Santa Ana, CA 92705

Client PO#:
Project #: 984P253
Survey #:

LABORATORY RESULTS

Date Sampled: 02/05/98
Analyzed: 02/08/98
Matrix: Bulk Material

Lab Job #: 98085
Date Received: 02/06/98
Reported: 02/09/98

METHOD: POLARIZED LIGHT MICROSCOPY(EPA/600/R-93/116)

LAB No.	SMPL No.	SMPL Description	ASBESTOS % Type	OTHER COMPONENTS % Type
085-01	FS-4-01	White fibrous material	ND	90 Cellulose 10 Paint
085-02	FS-4-02	White fibrous material	ND	90 Cellulose 10 Paint
085-03	FS-4-03	White fibrous material	ND	80 Cellulose 20 Paint
085-04	FS-4-04	Tan ground plaster	ND	55 Calcite 30 Quartz 10 Gypsum 5 Paint
085-05	FS-4-05	Gray ground plaster	ND	50 Calcite 40 Quartz 10 Gypsum
085-06	FS-4-06	Gray ground plaster	ND	45 Calcite 40 Quartz 10 Gypsum 5 Paint

98085

CHAIN OF CUSTODY RECORD

PROJECT NAME: O.C. FIRE STATION

DATE 2 15 98

PROJECT NO.: 984P253

Sample Number	Location <i>STATION</i>	Type of Sample		Type of Container	Type of Preservation		Analysis Required*
		Material	Method		Temp	Chemical	
FS-4-01	<u>7</u>	<u>Bulk</u>	<u>Grav</u>	<u>BAG</u>	<u>N/A</u>	<u>N/A</u>	<u>ASBESTOS</u>
FS-4-02							
FS-4-03							
FS-4-04							
FS-4-05							
FS-4-06							

Total Number of Samples Shipped: 10 Sampler's Signature: C. Harris

Relinquished By:
 Signature: C. Harris
 Printed Name: C. HARRIS
 Company: WCC
 Reason: ANALYSIS

Received By:
 Signature: M. Adali
 Printed Name: MADALI
 Company: ITEK

Date: 2/6/98
 Time: 1:05 PM

Relinquished By:
 Signature: Olivia A. Alejandro
 Printed Name: OLIVIA A. ALEJANDRO
 Company: ITEK LAB.
 Reason: Completed report

Received By:
 Signature: _____
 Printed Name: _____
 Company: _____

Date: / /
 Time: _____

Relinquished By:
 Signature: _____
 Printed Name: _____
 Company: _____
 Reason: _____

Received By:
 Signature: _____
 Printed Name: _____
 Company: _____

Date: / /
 Time: _____

Relinquished By:
 Signature: _____
 Printed Name: _____
 Company: _____
 Reason: _____

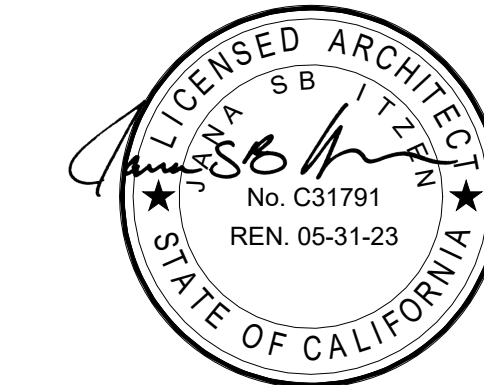
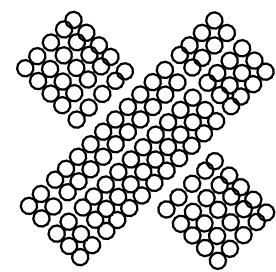
Received By:
 Signature: _____
 Printed Name: _____
 Company: _____

Date: / /
 Time: _____

Special Shipment / Handling / Storage Requirements:

* Note - This does not constitute authorization to proceed with analysis

5B: CITY OF IRVINE BUILDING PLANS



1 GENERAL CONDITIONS

1. PRIOR TO BEGINNING ANY WORK, THE GENERAL CONTRACTOR SHALL FURNISH A CONSTRUCTION SCHEDULE SHOWING THE CHRONOLOGICAL PHASES OF HIS WORK AND ALL RELATED WORK FOR THE PROJECT. THIS SCHEDULE SHALL INDICATE ALL ORDERING LEAD TIMES, LENGTH OF TIME FOR EACH PHASE (AS APPLICABLE), START AND COMPLETION, WITH A PROJECTED COMPLETION DATE.
2. ALL WORK PERFORMED BY THE CONTRACTOR/SUBCONTRACTORS SHALL CONFORM TO THE REQUIREMENTS OF MUNICIPAL, LOCAL, FEDERAL, AND STATE LAWS, AS WELL AS OTHER GOVERNING REQUIREMENTS, WHETHER OR NOT SPECIFIED ON THE DRAWINGS.
3. WHERE THE CONTRACT NOTES, OR DRAWINGS CALL FOR ANY WORK OF A MORE STRINGENT NATURE THAN THAT REQUIRED BY THE BUILDING CODE OR ANY OTHER DEPARTMENT HAVING JURISDICTION OVER THE WORK, THE WORK OF THE MORE STRINGENT NATURE CALLED FOR BY THE CONTRACT, CONSTRUCTION NOTES OR DRAWINGS SHALL BE FURNISHED IN ALL CASES.
4. THE CONTRACTOR SHALL BE FULLY AND SOLELY RESPONSIBLE FOR THE REMOVAL, REPLACEMENT AND RECTIFICATION OF ALL DAMAGED AND DEFECTIVE MATERIAL AND WORKMANSHIP IN CONNECTION WITH THE CONTRACT WORK. HE SHALL REPLACE OR REPAIR AS DIRECTED ALL SUCH DAMAGED OR DEFECTIVE MATERIALS WITHIN A PERIOD OF FIVE (5) BUSINESS DAYS FROM THE DATE OF SUBSTANTIAL COMPLETION, UNLESS OTHERWISE AGREED UPON IN WRITING BY THE OWNER.
5. THE CONTRACTOR/SUBCONTRACTORS SHALL OBTAIN AND PAY FOR ALL LEGALLY REQUIRED APPROVALS AND PERMITS NECESSARY FOR THE EXECUTION AND COMPLETION OF HIS WORK.
6. ALL DRAWINGS AND ALL CONSTRUCTION NOTES ARE COMPLEMENTARY, AND WHAT IS CALLED FOR BY EITHER WILL BE BINDING AS IF CALLED FOR BY ALL. ANY WORK SHOWN OR REFERRED TO ON ANY ONE SET OF DRAWINGS SHALL BE PROVIDED AS THOUGH SHOWN ON ALL RELATED DRAWINGS.
7. THE GENERAL CONTRACTOR IS WHOLLY RESPONSIBLE FOR THE COORDINATION AND SCHEDULING OF THE WORK EFFORT FOR ALL SUBCONTRACTORS, CRAFTSMEN AND TRADESMEN REQUIRED TO COMPLETE THE JOB.
8. THE GENERAL CONTRACTOR SHALL NOTIFY ARCHITECT IMMEDIATELY IF HE CANNOT COMPLY WITH ALL WORK CALLED FOR ON THESE DRAWINGS.
9. THE GENERAL CONTRACTOR SHALL NOTIFY ARCHITECT IMMEDIATELY OF DISCREPANCIES OR OMISSIONS BETWEEN THE DRAWINGS, THESE NOTES AND/OR FIELD CONDITIONS BEFORE COMMENCING ANY WORK. SUBMIT A REQUEST FOR CLARIFICATION.
10. BEFORE SUBMITTING A FINAL PRICING, ALL CONTRACTORS SHALL VISIT THE PREMISES, FAMILIARIZE THEMSELVES WITH EXISTING CONDITIONS AND SATISFY THEMSELVES AS TO THE NATURE AND SCOPE OF THE WORK AND THE DIFFICULTIES THAT ATTEND EXECUTION. THE SUBMISSION OF A PROPOSAL SHALL BE CONSTRUED AS EVIDENCE THAT SUCH AN EXAMINATION HAS BEEN MADE. LATER CLAIMS FOR LABOR, EQUIPMENT, OR MATERIAL REQUIRED FOR DIFFICULTIES ENCOUNTERED, WHICH COULD HAVE BEEN FORESEEN HAD SUCH AN EXAMINATION BEEN MADE, WILL NOT BE RECOGNIZED.
11. EACH CONTRACTOR AND SUBCONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND CONDITIONS AT JOB SITE AS IS RELATED TO THEIR WORK AND NOTIFY THE ARCHITECT/OWNER IF THERE ARE OBSTRUCTIONS AND CANNOT BE ACCOMPLISHED AS REFLECTED IN THE CONTRACT DOCUMENTS.
12. THE GENERAL CONTRACTOR AND THE SUBCONTRACTORS INVOLVED IN THIS PROJECT SHALL TAKE NOTE THAT ANY COST CAUSED BY DEFECTIVE OR ILL-TIMED WORK AS A RESULT OF, BUT NOT LIMITED TO INFERIOR WORKMANSHIP OR MATERIALS, IMPROPER SCHEDULING OR DELINQUENT ORDERING SHALL BE BORNE BY THE PARTY RESPONSIBLE.
13. WITH SUBMISSION OF FINAL PRICING, THE GENERAL CONTRACTOR SHALL ALSO SUBMIT A LIST OF LONG LEAD TIME ITEMS THAT PREVENT COMPLETION OF THE PROJECT BY PROJECTED MOVE-IN DATE. WHERE SPECIAL ITEMS REQUIRE EXTENDED LEAD TIME PREVENTING INSTALLATION BY PROJECTED MOVE-IN DATE, CONTRACTOR IS TO PROPOSE AN AVAILABLE ALTERNATE FOR APPROVAL BY OWNER AND TENANT, AS WELL AS TO PREPARE PRICING FOR POSSIBLE TEMPORARY ASSEMBLIES.
14. THE USE OF THE WORDS 'PROVIDE' OR 'PROVIDED' IN CONNECTION WITH ANY ITEM SPECIFIED IS INTENDED TO MEAN, UNLESS OTHERWISE NOTED THAT WHICH SHALL BE FURNISHED AND INSTALLED AND CONNECTED WHERE SO REQUIRED.
15. WHERE THE TERMS 'APPROVED EQUAL', 'EQUAL TO', 'ACCEPTABLE' OR THE OTHER GENERAL QUALIFYING TERMS ARE USED IN THESE NOTES, IT SHALL BE UNDERSTOOD THAT REFERENCE IS MADE TO THE RULING AND JUDGEMENT OF THE ARCHITECT.
16. THE GENERAL CONTRACTOR SHALL HAVE FIVE (5) WORKING DAYS FROM AWARD OF THE CONTRACT TO SUBMIT ANY 'OR EQUAL' SUBSTITUTIONS FOR SPECIFIED PRODUCTS OR WORK FOR REVIEW BY ARCHITECT. HE SHALL INCLUDE CUT SHEETS WITH SPECIFICATIONS AND REASONS FOR SUBSTITUTIONS. ARCHITECT SHALL RESPOND IN FIVE (5) WORKING DAYS TO SUBMITTAL. NO SUBSTITUTIONS SHALL BE ACCEPTED AFTER THE INITIAL TEN (10) DAY TIME LIMIT HAS PASSED.
17. ALL WOODWORK, BLOCKING, ETC., TO BE FIRE RETARDANT TREATED AS REQUIRED BY CODE.
18. THE GENERAL CONTRACTOR SHALL EXERCISE STRICT DUST CONTAINMENT CONTROL OVER JOB TO PREVENT DIRT OR DUST FROM LEAVING THE JOB SITE.
19. THE GENERAL CONTRACTOR SHALL INCLUDE IN HIS ESTIMATE ALL COSTS (INCLUDING OVERTIME WORK) FOR REMOVAL, NEW INSTALLATION AND REINSTALLATION WORK FOR ALL REQUIRED WORK WITHIN THE CEILING PLENUM.
20. ALL EXISTING FIXTURES NOT BEING REMOVED SHALL BE REFURBISHED WHERE REQUIRED, ALL LOOSE ITEMS TIGHTENED, LIGHT FIXTURES, EXIT SIGNS, ETC.) AND ALL MISSING PARTS REPLACED BY THE GENERAL CONTRACTOR TO ACHIEVE A FINISHED INSTALLATION AND APPEARANCE.
21. THE CONSTRUCTION NOTES AND/OR DRAWINGS ARE SUPPLIED TO ILLUSTRATE THE DESIGN INTENT AND THE GENERAL TYPE OF CONSTRUCTION DESIRED, AND ARE INTENDED TO APPLY TO THE FINEST QUALITY OF CONSTRUCTION, MATERIAL AND WORKMANSHIP THROUGHOUT.
22. THE GENERAL CONTRACTOR SHALL MAINTAIN A COMPLETE AND CURRENT SET OF CONSTRUCTION DRAWINGS ON SITE DURING ALL PHASES OF CONSTRUCTION FOR USE OF ALL TRADES.
23. THE GENERAL CONTRACTOR UPON AWARD OF THE CONTRACT FOR CONSTRUCTION, ASSUMED FULL RESPONSIBILITY FOR THE CONSTRUCTION, MATERIALS, AND WORKMANSHIP OF THE WORK DESCRIBED IN THESE NOTES AND DRAWINGS.
24. ALL REQUIRED EXITS, WAYS OF APPROACH THERETO, AND WAYS OF TRAVEL FROM THE EXIT INTO THE STREET SHALL CONTINUOUSLY BE MAINTAINED FREE FROM ALL OBSTRUCTIONS AND IMPEDIMENTS FROM UNOBSTRUCTED EGRESS IN THE CASE OF FIRE OR OTHER EMERGENCY.
25. DURING THE ENTIRE PERIOD OF DEMOLITION AND CONSTRUCTION, ALL EXISTING EXITS, EXIT LIGHTING, FIRE PROTECTIVE DEVICES AND ALARMS SHALL BE CONTINUOUSLY MAINTAINED.
26. THE GENERAL CONTRACTOR SHALL PROVIDE AND INSTALL FIRE EXTINGUISHERS AS REQUIRED BY FEDERAL OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA) AND THE FIRE AUTHORITY REGULATIONS.
27. THE GENERAL CONTRACTOR SHALL REPLACE ANY BROKEN OR CRACKED WINDOW GLAZING.

1 GENERAL CONDITIONS CONT.

28. THE GENERAL CONTRACTOR SHALL VERIFY SIZE, ELECTRICAL REQUIREMENTS, LOCATIONS AND CHARACTERISTICS OF ALL WORK AND/OR EQUIPMENT SUPPLIED BY THE OWNER OR TENANT, WITH THE MANUFACTURER OR SUPPLIER PRIOR TO THE START OF RELATED WORK.
29. CONTRACTOR SHALL PROTECT AREA AND NEW OR EXISTING MATERIALS AND FINISHES FROM DAMAGE WHICH MAY OCCUR FROM CONSTRUCTION, DEMOLITION, DUST, WATER, ETC., AND SHALL PROVIDE AND MAINTAIN TEMPORARY BARRICADES, CLOSURE WALLS, ETC. AS REQUIRED TO PROTECT THE PUBLIC DURING THE PERIOD OF CONSTRUCTION. DAMAGE TO NEW AND EXISTING MATERIALS, FINISHES, STRUCTURES AND EQUIPMENT SHALL BE REPAIRED OR REPLACED AT THE EXPENSE OF THE GENERAL CONTRACTOR.
30. DIMENSIONS: ALL DIMENSIONS SHALL BE VERIFIED IN THE FIELD AND DISCREPANCIES REPORTED TO THE ARCHITECT PRIOR TO CONSTRUCTION. DIMENSIONS AND ELEVATIONS ARE TO TOP OF CONCRETE OR PLYWOOD FLOORING, NOT TOP OF FLOOR COVERING. DO NOT SCALE DRAWINGS. IF NEEDED, THE ARCHITECT SHALL BE CONTACTED FOR VERIFICATION OR CLARIFICATION.
31. THE GENERAL CONTRACTOR SHALL SUBMIT ALL APPLICATIONS FOR PAYMENT TO THE OWNER FOR REVIEW AND APPROVAL.
32. THE GENERAL CONTRACTOR SHALL SEE THAT ALL SUBCONTRACTORS RECEIVE COMPLETE SETS OF WORKING DRAWINGS AND ASSUME FULL RESPONSIBILITY FOR COORDINATION OF WORK.
33. CONTRACT CLOSE-OUT SHALL OCCUR ONLY AFTER THE ARCHITECT HAS ISSUED THE PUNCH-LIST AND PUNCH-LIST ITEMS HAVE BEEN CORRECTED BY THE CONTRACTOR.

2 DEMOLITION

1. THE GENERAL CONTRACTOR SHALL FURNISH ALL LABOR AND MATERIALS AS REQUIRED TO COMPLETE DEMOLITION AND REMOVAL OF ALL ITEMS INDICATED IN DRAWINGS OR AS OTHERWISE DIRECTED BY ARCHITECT.
2. THE GENERAL CONTRACTOR SHALL FURNISH OWNER WITH A COMPLETE INVENTORY LIST OF ALL ITEMS THAT CAN BE REUSED AND/OR STORED IN BUILDING STOCK. OBTAIN DIRECTIVE REGARDING THEIR DISPOSITION.
3. THE GENERAL CONTRACTOR SHALL EXECUTE ALL WORK WITHIN THE REGULATION OF PROPERTY MANAGEMENT FOR DEMOLITION AND REMOVAL OF DEBRIS, INCLUDING AFTER HOURS WORK, AS MAY BE REQUIRED.
4. ALL WORK DEMOLISHED SHALL BE REMOVED FROM THE PREMISES, EXCEPT ITEMS TO BE REUSED OR RETURNED TO OWNER OR AS OTHERWISE NOTED.
5. THE GENERAL CONTRACTOR SHALL REMOVE ALL RUBBISH AND WASTE MATERIALS, BOTH FROM HIS OWN AND OTHER SUBCONTRACTORS EMPLOYEES, AND PROVIDE FOR ITS REMOVAL FROM THE SITE.
6. THE GENERAL CONTRACTOR SHALL REMOVE FROM PREMISES ALL CONDUITS, BOXES, PLATES, BRIDGED OR ANY OTHER TELEPHONE AND/OR ELECTRICAL WIRING AND EQUIPMENT LEFT AFTER WALL DEMOLITION.
7. THE GENERAL CONTRACTOR SHALL PROVIDE A VISQUEEN SEAL FROM FLOOR TO CEILING AT ALL INTERFACES TO PROTECT ADJACENT BUILDINGS PROPERTY WHILE DEMOLITION AND CONSTRUCTION ARE IN PROGRESS. THIS SEAL IS TO BE KEPT CLOSED AT ALL TIMES.
8. THE GENERAL CONTRACTOR SHALL CAP AND FLUSH OFF BEHIND FINISHED SURFACES ALL PROJECTING PLUMBING, FLOOR ELECTRICAL/TELEPHONE OUTLETS, AND ALL OTHER PROJECTING ITEMS WHICH ARE BEING ABANDONED.
9. UPON COMPLETION OF THE DEMOLITION WORK, THE GENERAL CONTRACTOR SHALL ENSURE THAT ALL AREAS ARE LEFT BROOM CLEAN.

3 PATCHING AND CUTTING

1. THE GENERAL CONTRACTOR SHALL DO ALL CUTTING, FITTING AND PATCHING WORK THAT MAY BE REQUIRED TO MAKE ALL PARTS COME TOGETHER PROPERLY, AND FIT TO RECEIVE OR BE RECEIVED BY WORK OF OTHER CONTRACTORS WHERE SHOWN, OR REASONABLY IMPLIED BY THE DRAWINGS AND NOTES.
2. THE GENERAL CONTRACTOR SHALL PROVIDE ALL FLOOR CUT-OUTS AND PATCHING REQUIRED FOR THE INSTALLATION OF ALL WORK.
3. THE GENERAL CONTRACTOR SHALL SURVEY ALL EXISTING FINISHED SURFACES TO REMAIN FOR CHIPS, CRACKS, HOLES, AND OTHER DAMAGE. THESE DEFECTIVE SURFACES SHALL BE REPAIRED OR IF BEYOND REPAIRING, THEN THE GENERAL CONTRACTOR SHALL REMOVE ALL EXISTING AND REPLACE WITH NEW TO MATCH EXISTING TO THE SATISFACTION OF OWNER AND TENANT.
4. THE GENERAL CONTRACTOR SHALL INSPECT ALL EXISTING SURFACES TO REMAIN, AFTER DEMOLITION OF EXISTING FINISHES, (I.E. WALL COVERING, WALL BASE, ETC.) IF SURFACE IS NOT SMOOTH AND FLUSH TO RECEIVE NEW FINISH, SUBCONTRACTOR SHALL SKIM COAT AND SAND SMOOTH.
5. IN ALL AREAS WHERE DEMOLITION CAUSES AN UNEVENNESS IN SLAB OR LIGHTWEIGHT CONCRETE, THE CONTRACTOR SHALL PATCH TO LEVEL AS REQUIRED TO RECEIVE NEW FLOORING FINISH.
6. ALL EXISTING OR NEW CONSTRUCTION WORK SHOWN ON DRAWINGS THAT IS DAMAGED AS A RESULT OF WORK FOR THIS PROJECT SHALL BE PATCHED AS REQUIRED TO MATCH IMMEDIATE EXISTING ADJACENT AREAS IN MATERIALS, FIRE RATING, FINISH AND COLOR, UNLESS OTHERWISE NOTED.
7. CONTRACTOR TO DOWEL/FILL/PATCH SLAB AFTER SAWCUTTING TO ENSURE SLAB STRUCTURAL INTEGRITY.
8. THE GENERAL CONTRACTOR SHALL PATCH ALL CRACKS, HOLES OR OTHER IMPERFECTIONS (PROJECTIONS SHALL BE REMOVED AND PATCHED) TO PROVIDE A CONTINUOUS SMOOTH FLOOR SURFACE.
9. THE GENERAL CONTRACTOR SHALL NOTIFY ARCHITECT AFTER FLOOR PATCHING IS DONE AND RECEIVE THEIR REVIEW PRIOR TO INSTALLATION OF FINISHED FLOORING.

14 CLEANING

1. THE 'EXISTING TO REMAIN', 'EXISTING TO BE RELOCATED' OR 'NEW' ITEMS INSTALLED BY THE GENERAL CONTRACTOR, IN ADDITION TO BEING AMPLY PROTECTED THROUGHOUT THE PERIOD OF CONSTRUCTION SHALL BE THOROUGHLY CLEANED TO THE SATISFACTION OF OWNER AND TENANT PRIOR TO BEING TURNED OVER TO THE TENANT.

OCFA FIRE STATION #4

2 CALIFORNIA AVE
IRVINE, CA 92612

ORANGE COUNTY FIRE AUTHORITY

**FOR PLAN
REVIEW ONLY**

REV	DESCRIPTION	DATE

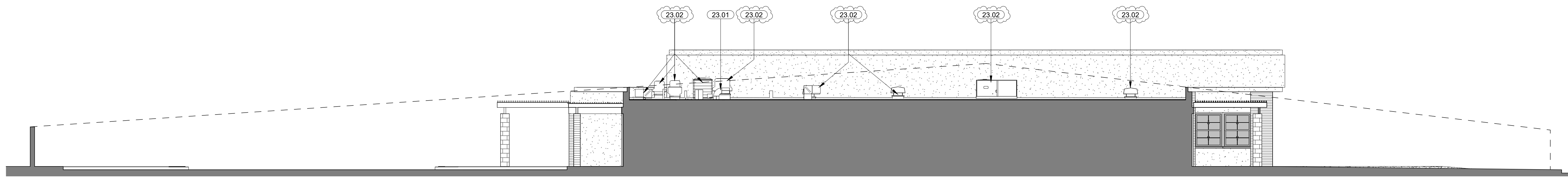
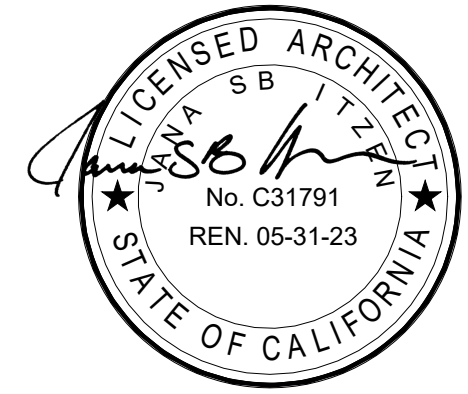
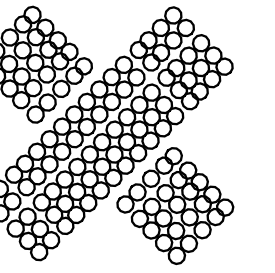
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Date **04/03/23**
Drawn/Checked by **AL**
Scale **1/2" = 1'-0"**

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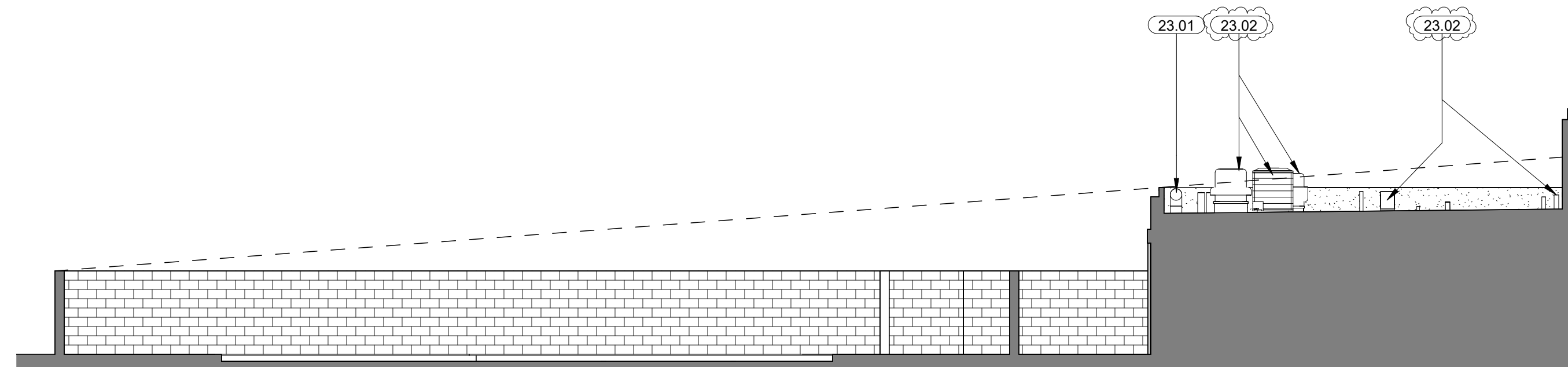
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GENERAL NOTES

GO.1



LINE OF SIGHT DIAGRAM | **08**
1/8" = 1'-0"



LINE OF SIGHT DIAGRAM | **07**
1/8" = 1'-0"

OCCUPANT LOAD					
#	ROOM NAME	OCCUPANCY	AREA	OCCUPANT LOAD FACTOR	Occ Text
102	(E) MECH ROOM	S-2	40 SF	300	1
104	FITNESS AREA	R-3	398 SF	50	8
105	LAUNDRY	R-3	45 SF	300	1
107	(E) SHOP	S-2	60 SF	300	1
108	SHOWER CIRCULATION	R-3	126 SF	200	1
108A	RR	R-3	40 SF	0	-
108B	RR	R-3	51 SF	0	-
108C	ADA RR	R-3	76 SF	0	-
108D	RR	R-3	42 SF	0	-
109	(E) VESTIBULE	S-2	22 SF	0	-
110	(E) DORMITORY	R-3	1491 SF	200	8
111	(E) STUDY	R-3	160 SF	200	1
112	(E) VESTIBULE	S-2	21 SF	0	-
113	(E) APPARATUS ROOM	S-2	2812 SF	300	10
116	(E) RECREATION ROOM	R-3	653 SF	15	44
117	(E) DINING ROOM	R-3	200 SF	200	1
118	(E) KITCHEN	R-3	172 SF	200	1
119	(E) HOSE STORAGE	S-2	112 SF	300	1
120	(E) CAPTAINS OFFICE	B	140 SF	150	1
121	(E) BTN. CHIEFS OFFICE	B	182 SF	150	2
122	(E) CORRIDOR	B	355 SF	0	-
123	(E) CONFERENCE	B	319 SF	150	3
123A	(E) CLOSET	B	13 SF	0	-
124	(E) ELECT. EQUIPMENT ROOM	S-2	87 SF	300	1
125	(E) MECHANICAL ROOM	S-2	108 SF	300	1
126	(E) CAPTAIN ROOM	R-3	164 SF	200	1
126A	(E) CLOSET	R-3	18 SF	0	-
127	(E) BTN. CHIEF ROOM	R-3	164 SF	200	1
127A	(E) CLOSET	R-3	18 SF	0	-
128	(E) VESTIBULE	R-3	46 SF	0	-
129	ADA RESTROOM	R-3	77 SF	0	-
132	(E) VESTIBULE	S-2	11 SF	0	-
134	(E) ADA RESTROOM	B	74 SF	0	-
136	(E) TOILET	B	23 SF	0	-
137	(E) BATH	R-3	34 SF	0	-
138	(E) STORAGE	S-2	16 SF	300	1
139	(E) WATCH DORMITORY	R-3	111 SF	200	1
140	(E) RECEPTION SEC. OFFICE	B	196 SF	150	2
141	(E) FIRE PREVENTION	B	176 SF	150	2
141A	(E) CLOSET	B	7 SF	0	-
142	(E) LOBBY	B	340 SF	150	3
142A	(E) CLOSET	B	7 SF	0	-
143	(E) FLOOR WATCH	B	166 SF	150	2
144A	(E) WATER HEATER	S-2	6 SF	300	1
153	(E) STORAGE	S-2	20 SF	300	1
Grand total			9401 SF		



CODE ANALYSIS | **05**
1/8" = 1'-0"

LEGEND

[Pattern]	B OCCUPANCY: 1999 SF
[Pattern]	R-3 OCCUPANCY: 4043 SF
[Pattern]	S-2 OCCUPANCY: 3370 SF
[Pattern]	(E) 1HR WALL, NOT IN SCOPE
[Pattern]	(N) 1HR WALL
[Pattern]	(E) WALL
[Pattern]	(N) WALL

PROJECT DATA / INFORMATION

CONSTRUCTION TYPE
TYPE V-B NON-SPRINKLERED

OCCUPANCY CLASSIFICATION AND USE
B BUSINESS GROUP CBC 304
R-3 RESIDENTIAL GROUP CBC 310.4
S-2 STORAGE GROUP CBC 311.2

GENERAL BUILDING HEIGHTS AND AREAS

TABLE 504.3 ALLOWABLE BUILDING HEIGHT IN FEET ABOVE GRADE PLANE

B / S-2	40' MAX
R-3	40' MAX

EXISTING BUILDING HEIGHT: 17'-8"

TABLE 504.4 ALLOWABLE NUMBER OF STORIES ABOVE GRADE PLANE

B	2
R-3	3
S-2	2

EXISTING STORIES: 1

TABLE 506.2 ALLOWABLE AREA FACTOR IN SQUARE FEET

B	9,000
R-3	UL
S-2	13,500

PROJECT SQUARE FOOTAGE:
B 1999 SF
R-3 4043 SF
S-2 3370 SF

TYPES OF CONSTRUCTION

TABLE 601 FIRE-RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS

BUILDING ELEMENT	TYPE V-B
PRIMARY STRUCTURAL FRAME	0
BEARING WALLS	0
EXTERIOR	0
INTERIOR	0
NONBEARING WALLS AND PARTITIONS	0
EXTERIOR	0
INTERIOR	0
FLOOR CONSTRUCTION	0
ROOF CONSTRUCTION	0

MEANS OF EGRESS

TABLE 1006.2.1 SPACES WITH ONE EXIT OR EXIT ACCESS DOORWAY

OCCUPANCY	MAX OCC. LOAD	MAX TRAVEL DISTANCE	
		OL<30	OL>30
B	49	100	75
R-3	20	NP	NP
S-2	29	100	75

PLUMBING FIXTURE COUNT

MINIMUM NUMBER OF REQUIRED FIXTURES (CPC 422.0)

TABLE A OCCUPANT LOAD FACTOR

GROUP B	200
GROUP R-3	200
GROUP S-2	5000

*GROUP R-3 OCCUPANT LOAD BASED ON NUMBER OF BEDS PROVIDED

TABLE 422.1 MIN. PLUMBING FACILITIES WC U L S

GROUP B		WC	U	L	S
1518 SF / 200 = 7.59 OCCUPANTS					
3,795 MALE		1	1	1	-
3,795 FEMALE		1	-	1	-
GROUP R-3					
3682 SF / 200 = 18.31 OCCUPANTS					
9,155 MALE		1	-	1	2
9,155 FEMALE		2	-	1	2
GROUP S-2					
3316 SF / 5000 = 0.6632					
0.3316 MALE		1	-	1	-
0.3316 FEMALE		1	-	1	-
REQUIRED MINIMUM TOTALS		7	1	6	4
TOTALS PROVIDED (SINGLE USER)		7	0	7	5

KEYNOTES

- 23.01 NEW EXHAUST
- 23.02 (E) MECHANICAL EQUIPMENT TO REMAIN, PROTECT IN PLACE
- (E) ACCESSIBLE PATH OF TRAVEL

REV	DESCRIPTION	DATE
1	AGENCY RESUBMITAL #1	11/18/22
2	AGENCY RESUBMITAL #2	04/03/23

Job No.	22004
Date	04/03/23
Drawn/Checked by	AL
Scale	As Indicated

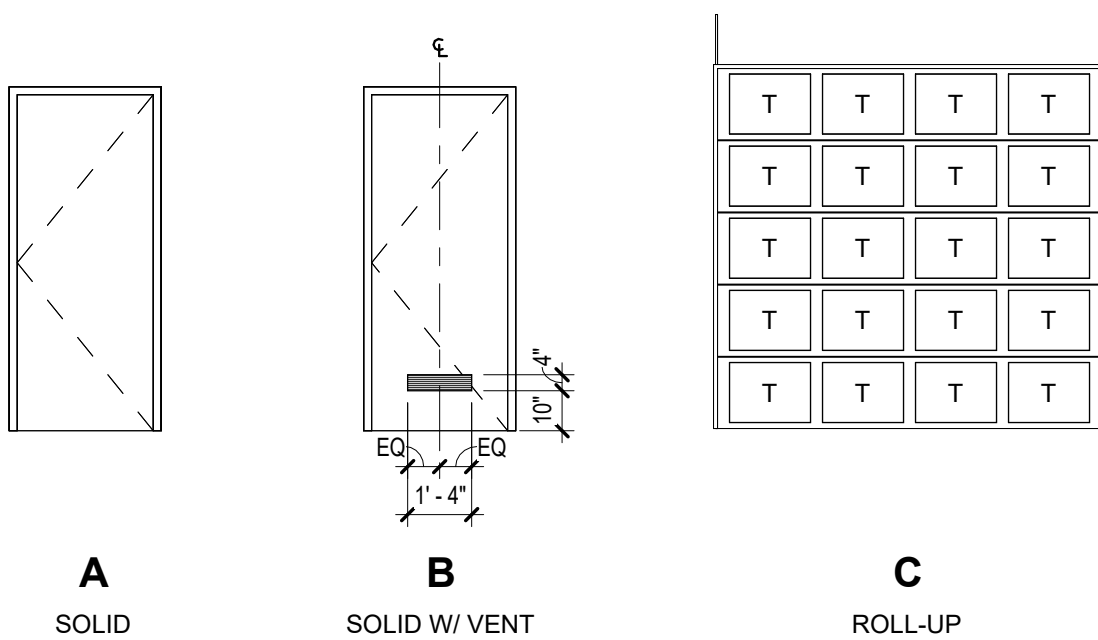
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FINISHES					
TAG	DESCRIPTION	MANUFACTURER	STYLE/MODEL	COMMENTS	
B-1	6" VINYL BASE	JOHNSONITE	TRADITIONAL VINYL 4" 1/8 TG4,	-	
B-2	6" VINYL BASE	JOHNSONITE	COLOR 20 CHARCOAL	-	
P-1	PAINT	SHERWIN WILLIAMS	EXTRA WHITE SW7006	-	
RF-1	3/8" THICK RUBBER FLOORING	RUBBER FLOORING INC	BLACK WITH 10% GRAY 4" WIDE ROLLS	-	
SC-1	SEALED CONCRETE	PROSOCO	CONSOLIDECK LS	-	
T-1	2"X2" CERAMIC TILE	ARIZONA TILE	ARDESIA - ASH - R11 ANTI-SLIP FINISH	INSTALLATION METHOD (STACKED), GROUT - #335 WINTER GRAY	
T-2	12"X24" CERAMIC TILE	ARIZONA TILE	ARDESIA - ASH - R11 ANTI-SLIP FINISH	INSTALLATION METHOD (STACKED), GROUT - #335 WINTER GRAY	
T-3	12"X24" CERAMIC TILE	ARIZONA TILE	ARDESIA - ASH - MATTE FINISH	INSTALLATION METHOD (STACKED), GROUT - #335 WINTER GRAY	

PLUMBING FIXTURE SCHEDULE					
TYPE	DESCRIPTION	COUNT	MANUFACTURER	MODEL	COMMENTS
FD-1	FLOOR DRAIN	11	MIFAB	F1000-C-S	5"X5" SQAURE
S-1	UNDERCOUNTER LAVATORY	9	TOTO	LT221	
SH-1	SHOWER HEAD	6	BRADLEY	LX1	LUXURY SHOWER HEAD
SH-2	ADA COMPLIANT HAND HELD SHOWER HEAD	2	BRADLEY	A36	36" GRAB BAR WITH HAND SHOWER
SH-3	SHOWER CONTROL VALVE	6	BRADLEY	S59-1001	
WC-1	WATER CLOSET	8	TOTO	CT705ELN(G)	ADA COMPLIANT FLOOR-MOUNTED TOILET

EQUIPMENT SCHEDULE					
TYPE	DESCRIPTION	COUNT	MANUFACTURER	MODEL	COMMENTS
CF-1	CEILING FAN	1	BIG ASS FANS	MK-161-05	60" INDOOR FLUSH MOUNT
CH-1	TOWEL HOOK - SINGLE	6	BRADLEY CORPORATION	9134-000000	
CH-2	TOWEL HOOK - TRIPLE	2	BRADLEY CORPORATION	9943 BRADEX	
E-1	ANTI-FOG POWERED MIRROR	3	ELECTRIC MIRROR	INS-11,75X23,75-120V4W	INSTALL CENTERED IN SHOWER NICHE
GB-1	TOILET GRAB BAR	3	BOBRICK	B-5806	
GB-2	SHOWER GRAB BAR	2	BOBRICK	B-5806	REFER TO PLANS FOR LENGTHS
SB-1	FOLDABLE SHOWER SEAT	2	BRADLEY CORPORATION	9562	
SD-1	AUTOMATIC SOAP DISPENSER	14	KLEENLINE	NRG NO-TOUCH	
TD-1	TOILET TISSUE DISPENSER	8	BRADLEY CORPORATION	5084	
WD-1	WASTE DISPOSAL WITH PAPER TOWEL DISPENSER	6	GP PRO GEORGIA-PACIFIC LLC	59471 / 59466A	

DOOR TYPES



DOOR GENERAL NOTES

- CBC SECTION 1008.1.8, EXIT DOORS SHALL BE OPENABLE FROM THE INSIDE WITHOUT THE USE OF A KEY OR ANY SPECIAL KNOWLEDGE OR EFFORT.
- CBC SECTION 1338.2.5.1, HAND-ACTIVATED DOOR OPENING HARDWARE SHALL BE CENTERED BETWEEN 30"-44" ABOVE FLOOR. LATCHING AND LOCKING DOORS THAT ARE HAND ACTIVATED AND WHICH ARE IN A PATH OF TRAVEL SHALL BR OPERABLE WITH A SINGLE EFFORT BY LEVER-TYPE HARDWARE, BY PANIC BARS, PUSH-PULL ACTIVATING BARS, OR OTHER HARDWARE DESIGNED TO PROVIDE PASSAGE WITHOUT REQUIRING THE ABILITY TO GRASP THE OPENING HARDWARE. LOCKED EXIT DOORS SHALL OPERATE AS ABOVE IN EGRESS DIRECTION.
- CBC SECTION 1338.2.5, MAXIMUM EFFORT TO OPERATE DOORS SHALL NOT EXCEED 5 POUNDS FOR EXTERIOR DOORS AND INTERIOR DOORS, SUCH PULL OR PUSH EFFORT BEING APPLIED AT RIGHT ANGLES TO HINGED DOORS AND AT THE CENTER PLACE OF SLIDING OR FOLDING DOORS. COMPENSATING DEVICES OR AUTOMATIC DOOR OPERATORS MAY BE UTILIZED TO MEET ABOVE STANDARDS, WHEN FIRE DOORS ARE REQUIRED. THE MAXIMUM EFFORT TO OPERATE THE DOOR MAY BE INCREASED TO THE MINIMUM ALLOWABLE BY THE APPROPRIATE ADMINISTRATIVE AUTHORITY, NOT TO EXCEED 15 POUNDS.

DOOR ABBREVIATIONS

WD WOOD
SC SOLID CORE
HM HOLLOW METAL
FF FACTORY FINISH
GL GLASS
PT PAINT
AL ALUMINUM
T TEMPERED GLASS

*SEE FINISH SCHEDULE FOR ADDITIONAL FINISHES

DOOR HARDWARE TYPE

FRAME: PER SCHEDULE

FINISH: CLEAR ANODIZED ALUMINUM(FACTORY FINISH)

SCHLAGE, L-SERIES MORTISE LATCHSET, SAME FINISH BOTH SIDES, 626-SATIN CHROMIUM, MOUNTING HEIGHT TO MATCH BUILDING STANDARD.

4-1/2" x 4-1/2" HAGER BB-1279 BUTT HINGES, 3, FINISH TO MATCH LEVER.

TRIMCO # 1211 FLOOR STOP, FINISH TO MATCH LEVER

LEVER: SCHLAGE, L-SERIES MORTISE LATCHSET, SAME FINISH BOTH SIDES, 626-SATIN CHROMIUM, MOUNTING HEIGHT TO MATCH BUILDING STANDARD, (OR EQUAL, SARGENT LEVER)

DOOR STOP: TRIMCO #1211 FLOOR STOP, FINISH TO MATCH LEVER, SCHLAGE, L-SERIES MORTISE LATCHSET, SAME FINISH BOTH SIDES, 626-SATIN CHROMIUM, MOUNTING HEIGHT TO MATCH BUILDING STANDARD.

HARDWARE: PER SCHEDULE

1: SCHLAGE L-SERIES MORTISE LOCK KEVED TO MASTER KEY, LCN 4040XP SURFACE MOUNTED CLOSER, FINISH TO MATCH EXISTING

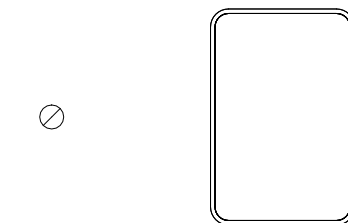
2: CANE BOLT WITH LOCK

3: SCHLAGE L9040, LV9040 FINISH TO MATCH LEVER, ADA TURN 08-900ML903-363, INSIDE LEVER FREE FOR IMMEDIATE EGRESS AND UNLOCKS OUTSIDE LEVER.

4: LCN 4040XP SURFACE MOUNTED CLOSER, FINISH TO MATCH LEVER, NO LOCKING HARDWARE

DOOR SCHEDULE															
NUMBER	DOOR TYPE	DETAILS			OPENING		DOOR PANEL			DOOR FRAME		HARDWARE GROUP	REMARKS		
		HEAD	JAMB	THRESHOLD	WIDTH	HEIGHT	THICKNESS	CORE	MATERIAL	FINISH	MATERIAL			FINISH	
															LABEL (MIN.)
EXISTING															
34	A	-	-	14/A9.3	2'-4"	7'-0"		-	-	-	-	-	3	UPDATE LOCKS ON (E) DOOR, PROVIDE UNISEX RESTROOM SIGN	
35	B	-	-	14/A9.3	3'-0"	7'-0"		-	-	-	-	-	3	UPDATE LOCKS ON (E) DOOR, CUT IN 4"X16" VENT - PROVIDE 0.55F NET FREE AREA, PROVIDE UNISEX RESTROOM SIGNAGE, REFER TO 16/A9.2	
NEW															
103	A	04/A9.3	04/A9.3	03/A9.3	3'-0"	7'-0"		-	-	-	-	-	4	FLIP SWING OF EXISTING DOOR	
104A	C	06/A8.1	07/A8.1	05/A8.1	6'-0"	7'-6"	0'-1 3/4"	AL	AL	FF	WD	PT	2	ROLL UP DOOR, INTERIOR LATCH AND LOCK	
104B	A	04/A9.3	04/A9.3	03/A9.3	3'-0"	7'-0"	0'-1 3/4"	-	-	-	PT	HM	PT	45	1 FLIP SWING OF EXISTING DOOR
106A	A	04/A9.3	04/A9.3	14/A9.3	2'-6"	7'-0"	0'-1 3/4"	SC	WD	PT	HM	PT	3	PROVIDE UNISEX RESTROOM SIGNAGE, REFER TO 16/A9.2	
108B	A	04/A9.3	04/A9.3	14/A9.3	2'-6"	7'-0"	0'-1 3/4"	SC	WD	PT	HM	PT	3	PROVIDE UNISEX RESTROOM SIGNAGE, REFER TO 16/A9.2	
108C	A	04/A9.3	04/A9.3	14/A9.3	3'-0"	7'-0"	0'-1 3/4"	SC	WD	PT	HM	PT	3	PROVIDE ACCESSIBLE UNISEX RESTROOM SIGNAGE, REFER TO 16/A9.2	
108D	A	04/A9.3	04/A9.3	14/A9.3	2'-6"	7'-0"	0'-1 3/4"	SC	WD	PT	HM	PT	3	PROVIDE UNISEX RESTROOM SIGNAGE, REFER TO 16/A9.2	
129	B	04/A9.3	04/A9.3	14/A9.3	3'-0"	7'-0"	0'-1 3/4"	SC	WD	PT	HM	PT	3	CUT IN 4"X16" VENT - PROVIDE 0.55F NET FREE AREA, PROVIDE ACCESSIBLE UNISEX RESTROOM SIGNAGE, REFER TO 20/A9.2	
144	A	04/A9.3	04/A9.3	03/A9.3	2'-6"	7'-0"	0'-1 3/4"	HM	HM	PT	HM	PT	45	1	

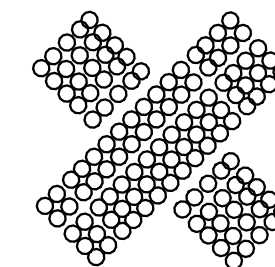
LIGHT FIXTURE TYPES



L1 L2

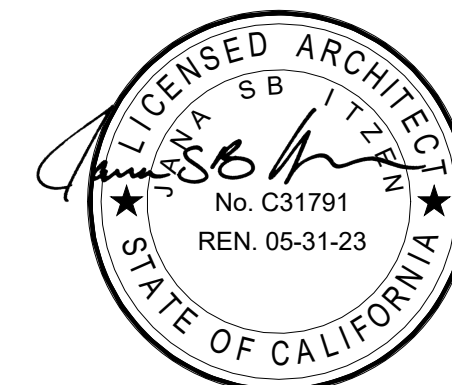
LIGHT FIXTURE SCHEDULE						
TYPE	DESCRIPTION	COUNT	MANUFACTURER	MODEL	TEMP	TYPE COMMENTS
L1	RECESSED LED - 4" DIA.	31	GREEN CREATIVE	INNOFIT GEN 2 SERIES	3500K	WIDE BEAM
L2	LIGHTED MIRROR	9	ELECTRIC MIRROR	P3PDF-09L2-35KH-F-W-HIC-120V	<varies>	PERIMETER AND BACKLIT MIRROR

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1	AGENCY RESUBMITTAL #1	11/18/22

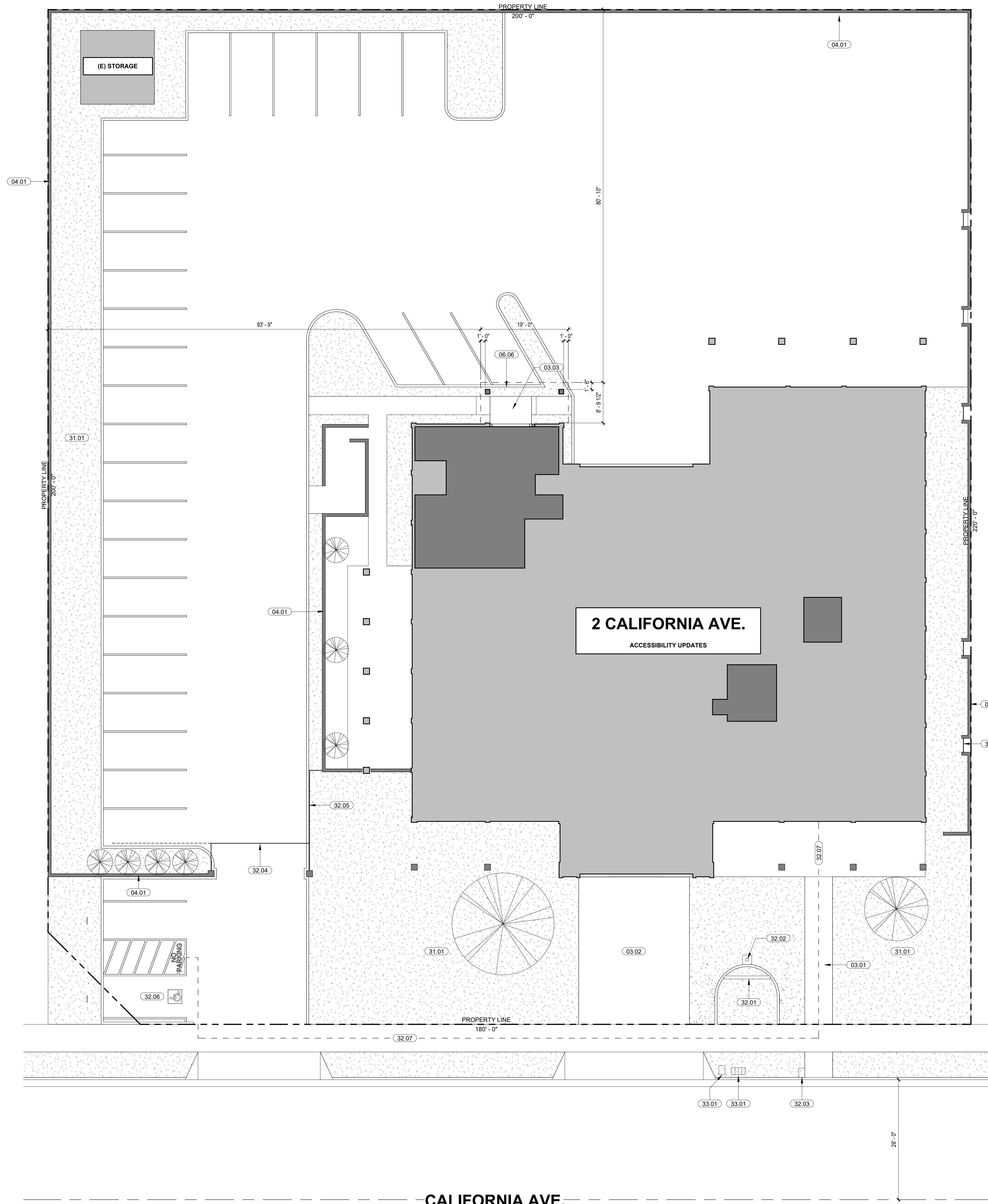
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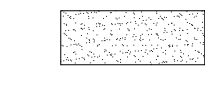
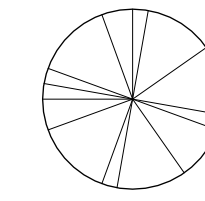
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SCHEDULES

A0.1



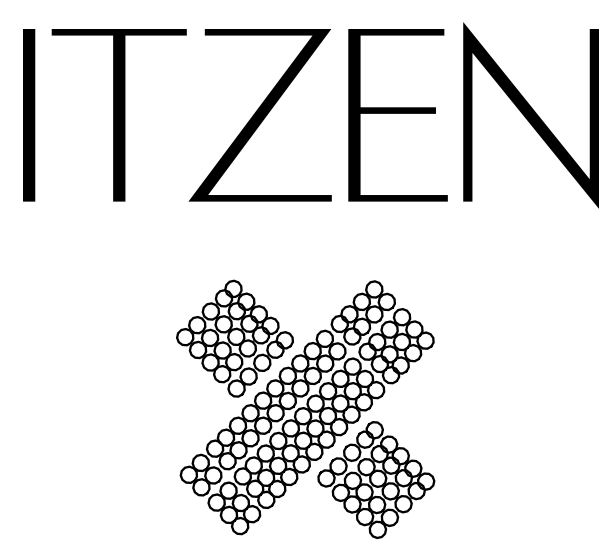
LEGEND

-  (E) BUILDING
-  AREAS OF WORK
-  (E) PLANTING
-  (E) TREE

GENERAL NOTES

SCHEDULES

KEYNOTES		
03.01	(E) WALKWAY	
03.02	(E) DRIVEWAY	
03.03	LEVEL CONCRETE LANDING, SET -1/2" BELOW FINISH FLOOR	
04.01	(E) CMU WALL	
06.06	OPEN LATTICE SHADE STRUCTURE TO MATCH EXISTING	
31.01	(E) PLANTING AREA	
32.01	(E) BUILDING LANDMARK SIGN	
32.02	(E) FLAG POLE	
32.03	(E) MAIL BOX	
32.04	(E) MOTORIZED FENCE	
32.05	(E) FENCING	
32.06	(E) ACCESSIBLE PARKING	
32.07	(E) ACCESSIBLE PATH OF TRAVEL	
33.01	(E) UTILITIES	



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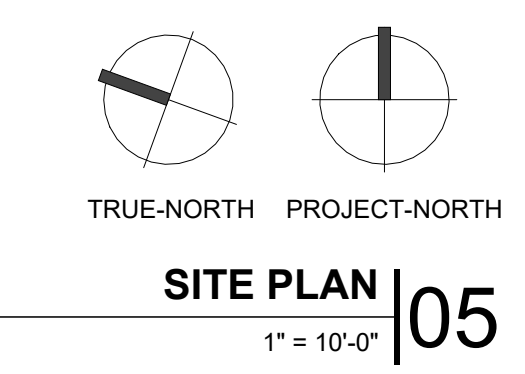
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LEGEND

- (E) WALLS TO REMAIN
- (E) NON-STRUCTURAL WALL TO BE DEMOLISHED

GENERAL NOTES

1. PROTECT ALL STRUCTURE INCLUDING BUT NOT LIMITED TO COLUMNS, BEAMS, WALLS, ETC.
2. TIE ALL ELECTRICAL BACK TO PANELS AT REMOVED LIGHTING AND DEVICES.
3. REMOVE ALL CEILING MOUNTED ELECTRICAL RECEPTACLES / J-BOXES.
4. (E) ROOF EQUIPMENT TO REMAIN, PROTECT IN PLACE

The intent of this drawing is to describe in general the demolition areas affected by the project construction. It is not intended as a detailed description of existing items or elements to be removed. The Contractor should visit the site and review any available Record Documents to become familiar with the existing conditions and include the removal of all items necessary for the proper execution and completion of the work. The Contract Documents are complementary and what is required by one shall be binding as if required by all to the extent that it is reasonably inferable from them as being necessary to produce the intended results.

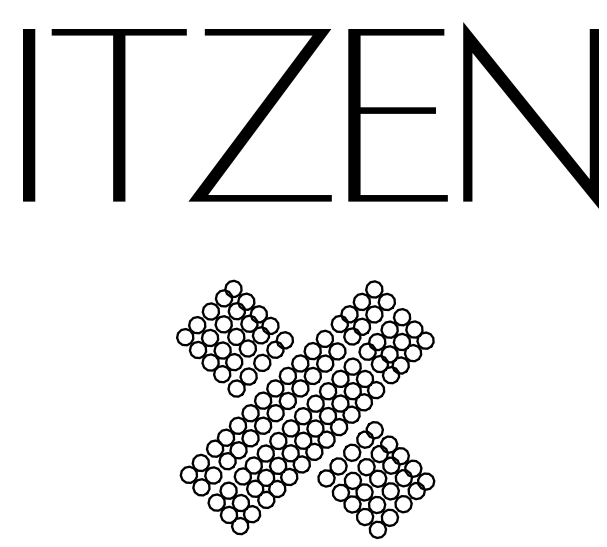
Protect in place existing adjacent buildings and utilities in place and/or as indicated. Cap all utilities at appropriate points. All existing electrical / telephone / catv utilities shall be removed as indicated or back to the point where the specific utility system enters the work area. Coordinate demolition of all utilities with the Client. All utilities connected to the existing buildings to remain shall continue to be operational during business hours of the demolition process.

SCHEDULES

SEE SHEET A0.1 FOR FINISH SCHEDULE

KEYNOTES

KEYNOTE	DESCRIPTION
02.01	DEMO (E) WALL
02.02	DEMO (E) PLUMBING FIXTURE
02.03	DEMO (E) FINISHES, SHEATHING TO REMAIN
02.05	DEMO (E) DOOR
02.07	DEMO (E) WINDOWS, INFILL AND PREP FOR NEW GARAGE DOOR OPENING, REFER TO PLAN AND DOOR SCHEDULE FOR SIZING
02.08	DEMO (E) DOOR, INFILL OPENING
02.09	DEMO (E) DOOR, WIDEN OPENING. REFER TO PLAN AND DOOR SCHEDULE FOR SIZING
02.11	DEMO (E) DOOR, INFILL OPENING AND PREP FOR NEW DOOR, REFER TO PLAN AND DOOR SCHEDULE FOR SIZING
02.12	DEMO (E) DOOR, PREP FOR FINISHED OPENING PER DETAIL 06/A9.3
02.13	DEMO (E) PLANTING AREA
02.14	REMOVE (E) CASEWORK AND RELOCATE PER CLIENT DIRECTION
02.15	FLIP SWING OF (E) DOOR PANEL, REFER TO PLAN
02.18	DEMO (E) PORTION OF WALKWAY
02.19	DEMO (E) PORTION OF WALKWAY AND PREP FOR SLOPED WALKWAY. PROVIDE SMOOTH TRANSITION BETWEEN NEW FLAT LANDING AND EXISTING WALKWAY. SLOPE NOT TO EXCEED 1:12 VERIFY LENGTH IN FIELD



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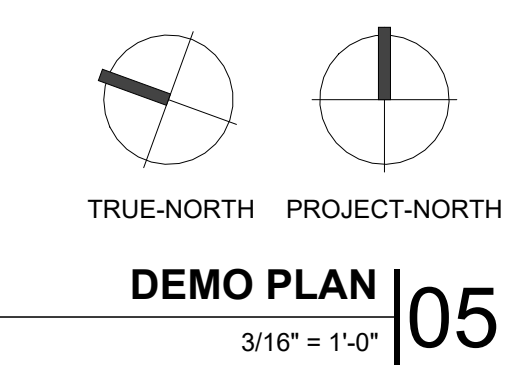
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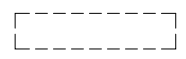
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DEMO PLAN
A1.2



LEGEND

-  (E) WALLS TO REMAIN
-  (E) NON-STRUCTURAL WALL TO BE DEMOLISHED

GENERAL NOTES

1. PROTECT ALL STRUCTURE INCLUDING BUT NOT LIMITED TO COLUMNS, BEAMS, WALLS, ETC.
2. TIE ALL ELECTRICAL BACK TO PANELS AT REMOVED LIGHTING AND DEVICES.
3. REMOVE ALL CEILING MOUNTED ELECTRICAL RECEPTACLES / J-BOXES.
4. (E) ROOF EQUIPMENT TO REMAIN. PROTECT IN PLACE

The intent of this drawing is to describe in general the demolition areas affected by the project construction. It is not intended as a detailed description of existing items or elements to be removed. The Contractor should visit the site and review any available Record Documents to become familiar with the existing conditions and include the removal of all items necessary for the proper execution and completion of the work. The Contract Documents are complementary and what is required by one shall be binding as if required by all to the extent that it is reasonably inferable from them as being necessary to produce the intended results.

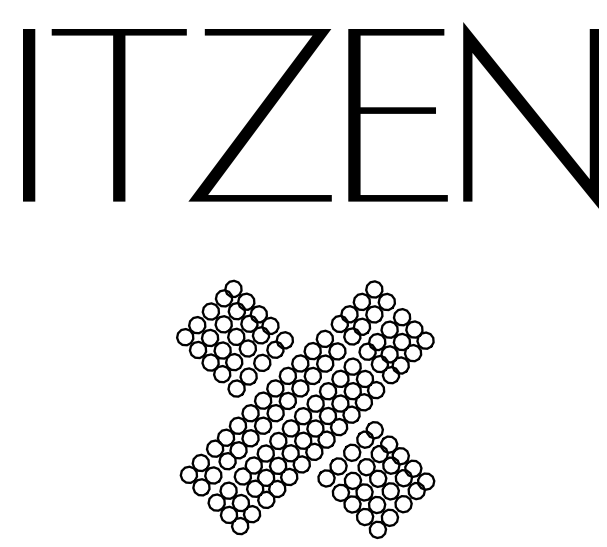
Protect in place existing adjacent buildings and utilities in place and/or as indicated. Cap all utilities at appropriate points. All existing electrical / telephone / catv utilities shall be removed as indicated or back to the point where the specific utility system enters the work area. Coordinate demolition of all utilities with the Client. All utilities connected to the existing buildings to remain shall continue to be operational during business hours of the demolition process.

SCHEDULES

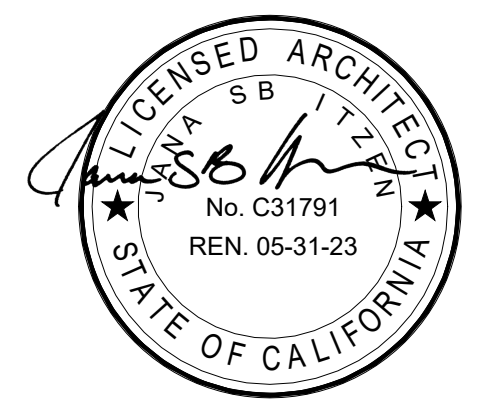
SEE SHEET A0.1 FOR FINISH SCHEDULE

KEYNOTES

02.04	DEMO (E) CEILING AND/OR SOFFIT
02.10	DEMO ALL (E) LIGHT FIXTURES AND MECHANICAL REGISTERS, CEILING TO REMAIN



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ORANGE COUNTY FIRE AUTHORITY

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REV	DESCRIPTION	DATE

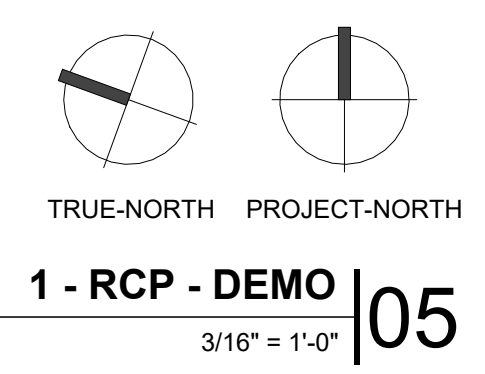
Job No. 22004
Date 04/03/23
Drawn/Checked by AL
Scale As Indicated

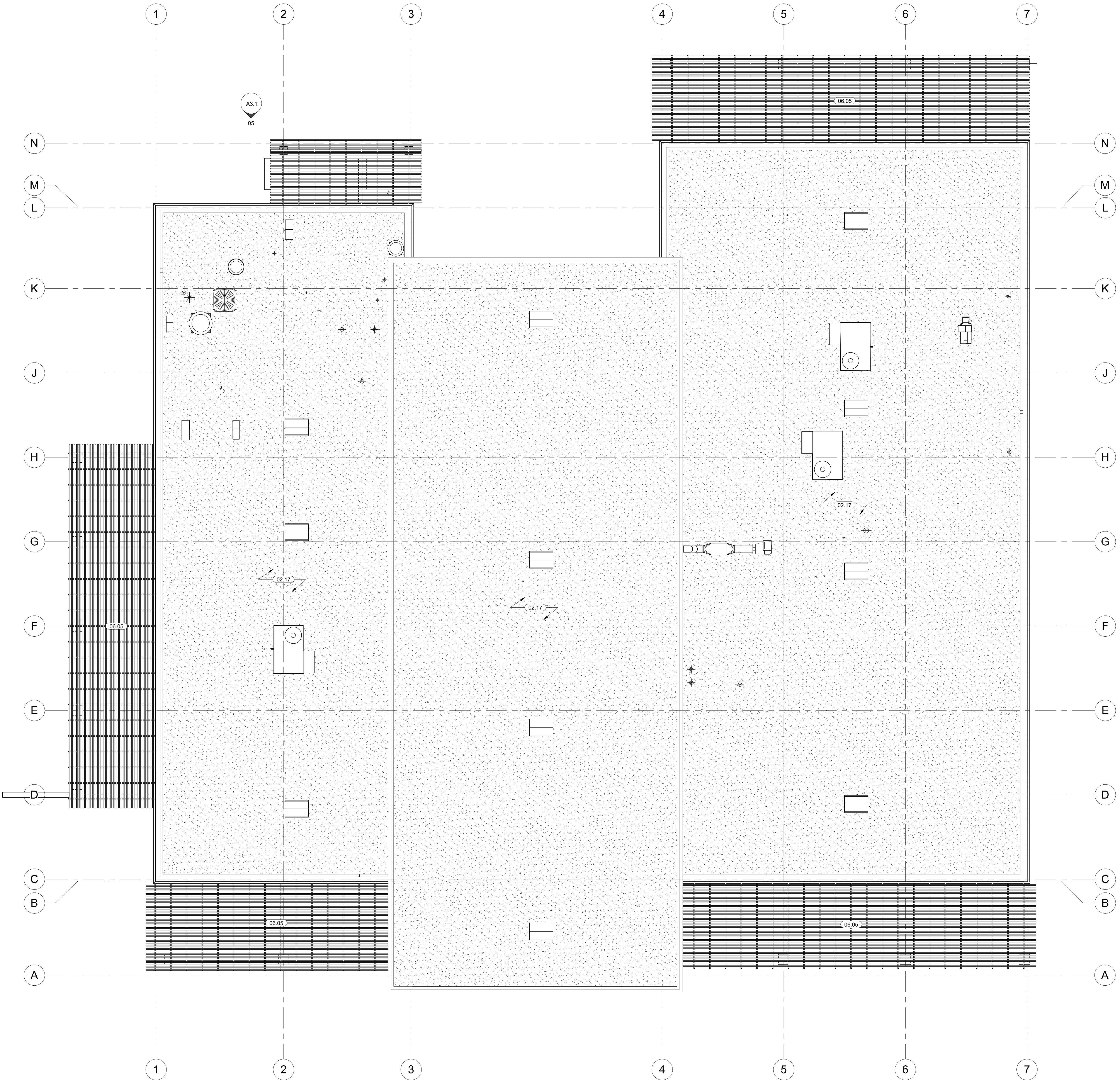
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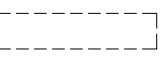
DEMO REFLECTED CEILING PLAN

A1.3





LEGEND

-  (E) WALLS TO REMAIN
-  (E) NON-STRUCTURAL WALL TO BE DEMOLISHED

GENERAL NOTES

1. PROTECT ALL STRUCTURE INCLUDING BUT NOT LIMITED TO COLUMNS, BEAMS, WALLS, ETC.
2. TIE ALL ELECTRICAL BACK TO PANELS AT REMOVED LIGHTING AND DEVICES.
3. (E) ROOF EQUIPMENT TO REMAIN, PROTECT IN PLACE

The intent of this drawing is to describe in general the demolition areas affected by the project construction. **It is not intended as a detailed description of existing items or elements to be removed.** The Contractor should visit the site and review any available Record Documents to become familiar with the existing conditions and include the removal of all items necessary for the proper execution and completion of the work. **The Contract Documents are complementary** and what is required by one shall be binding as if required by all to the extent that it is reasonably inferable from them as being necessary to produce the intended results.

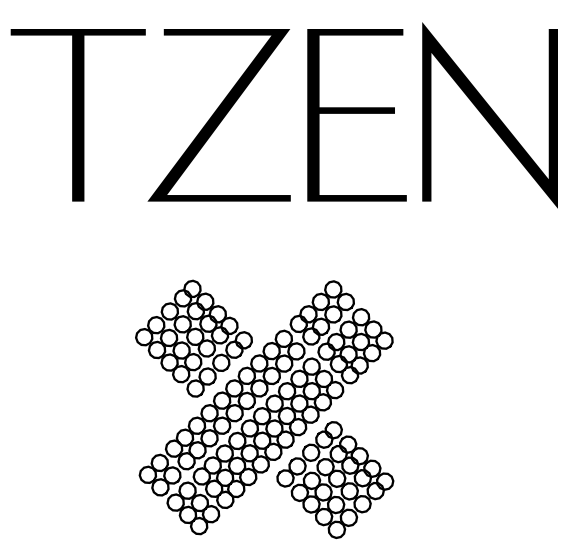
Protect in place existing adjacent buildings and utilities in place and/or as indicated. Cap all utilities at appropriate points. All existing electrical / telephone / cavi utilities shall be removed as indicated or back to the point where the specific utility system enters the work area. Coordinate demolition of all utilities with the Client. All utilities connected to the existing buildings to remain shall continue to be operational during business hours of the demolition process.

SCHEDULES

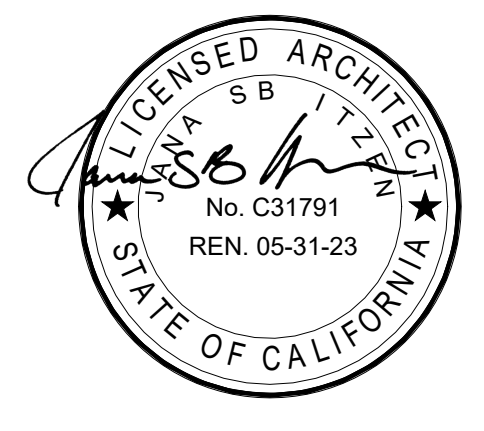
SEE SHEET A0.1 FOR FINISH SCHEDULE

KEYNOTES

02.17	DEMO (E) ROOFING SYSTEM TO ROOF SHEATHING. PROTECT ROOF SHEATHING IN PLACE
06.05	(E) SHADE STRUCTURE



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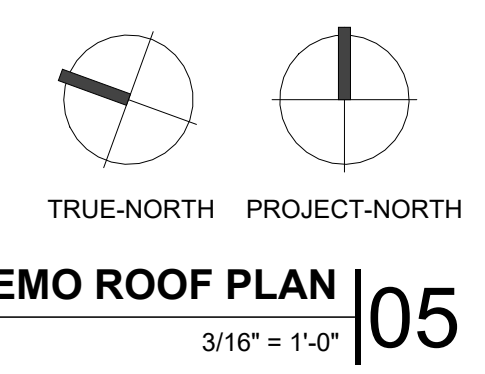
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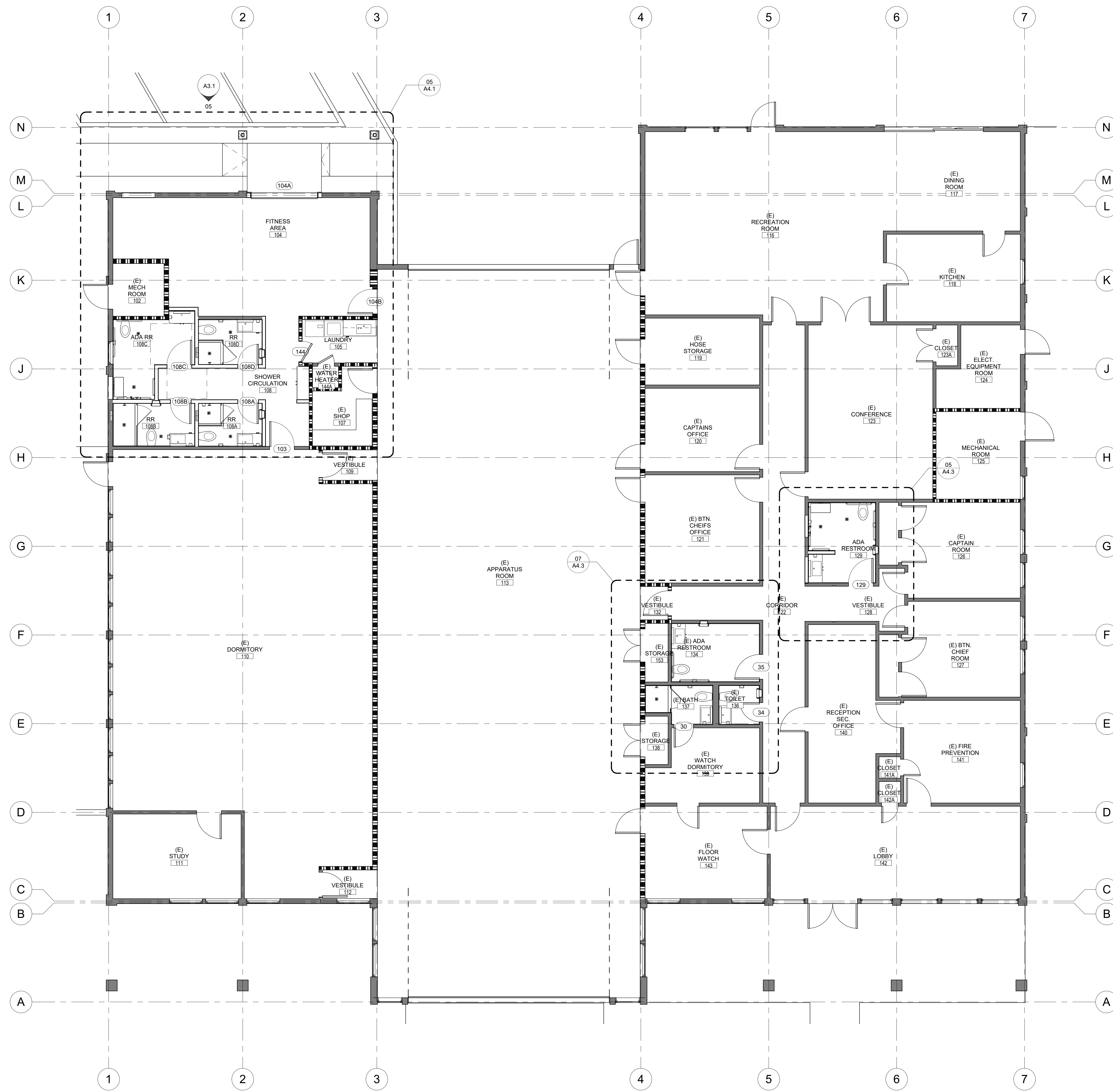
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DEMO ROOF PLAN

A1.4



DEMO ROOF PLAN | 05
3/16" = 1'-0"



LEGEND

- (E) WALLS TO REMAIN
 - (E) RATED WALL
 - WALL TYPE - SEE LEGEND BELOW FOR DETAILS
 - TYPICAL PARTITION: 02 A9.1
 - 1HR PARTITION: 03 A9.1
 - FURRING PARTITION: 04 A9.1
- STUD SIZES:**
- | # | DESCRIPTION |
|---|-------------------|
| 2 | 1 1/2" WOOD STUD |
| 4 | 3 1/2" METAL STUD |
| 6 | 5 1/2" METAL STUD |

GENERAL NOTES

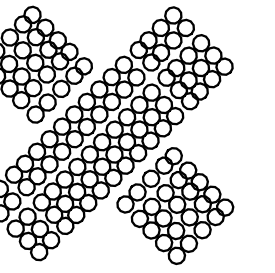
- DIMENSIONS ARE TO FACE OF FINISH, U.N.O.
- ALL COMBUSTIBLE MATERIALS IN CEILING TO BE WRAPPED WITH TYPE "X" GYPSUM BOARD, AND/OR BE FIRE RATED PER APPLICABLE CODES.
- ALL ACCESS PANELS IN GYPSUM BOARD CEILINGS TO BE FLUSH PAINTED METAL ACCESS DOORS. CONFIRM LAYOUT/LOCATION WITH ARCHITECT PRIOR TO INSTALLATION.
- ALL CEILING FIXTURE CENTERLINES TO ALIGN WHERE APPLICABLE.
- REFER TO ELECTRICAL DRAWING FOR ALL LIGHT FIXTURES CIRCUITING AND ADDITIONAL INFORMATION.

SCHEDULES

SEE SHEET A0.1 FOR FINISH SCHEDULE

KEYNOTES

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1	AGENCY RESUBMITTAL #1	11/18/22

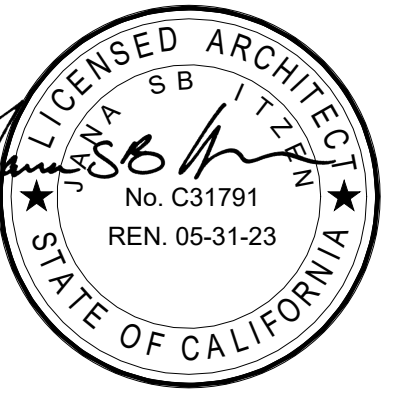
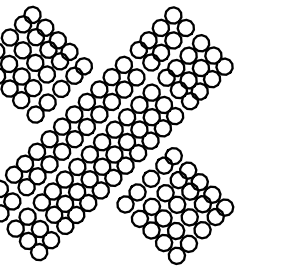
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FIRST FLOOR PLAN

A2.1



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REFLECTED CEILING PLAN LEGEND

XX'-XX" DENOTES CEILING TYPE
XXX'-X DENOTES CEILING HEIGHT

GYP
PAINTED GYP. BD. CEILING
PAINTED P-1 U.N.O. SEE
DETAILS:

OPEN
PAINT ALL EXPOSED MECHANICAL, STRUCTURAL,
ELECTRICAL BLACK

SUPPLY AIR GRILLE - PER MECHANICAL

RETURN AIR GRILLE - PER MECHANICAL

EXHAUST AIR GRILLE - PER MECHANICAL

EXIT SIGN - POLE MOUNT LED EDGE LIT CLEAR
ACRYLIC WITH GREEN LETTERS, BATTERY
BACKUP

DATA 18" AFF. U.N.O.

QUADPLEX OUTLET 18" AFF. U.N.O.

DUPLEX OUTLET 18" AFF. U.N.O.

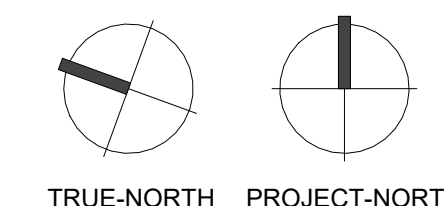
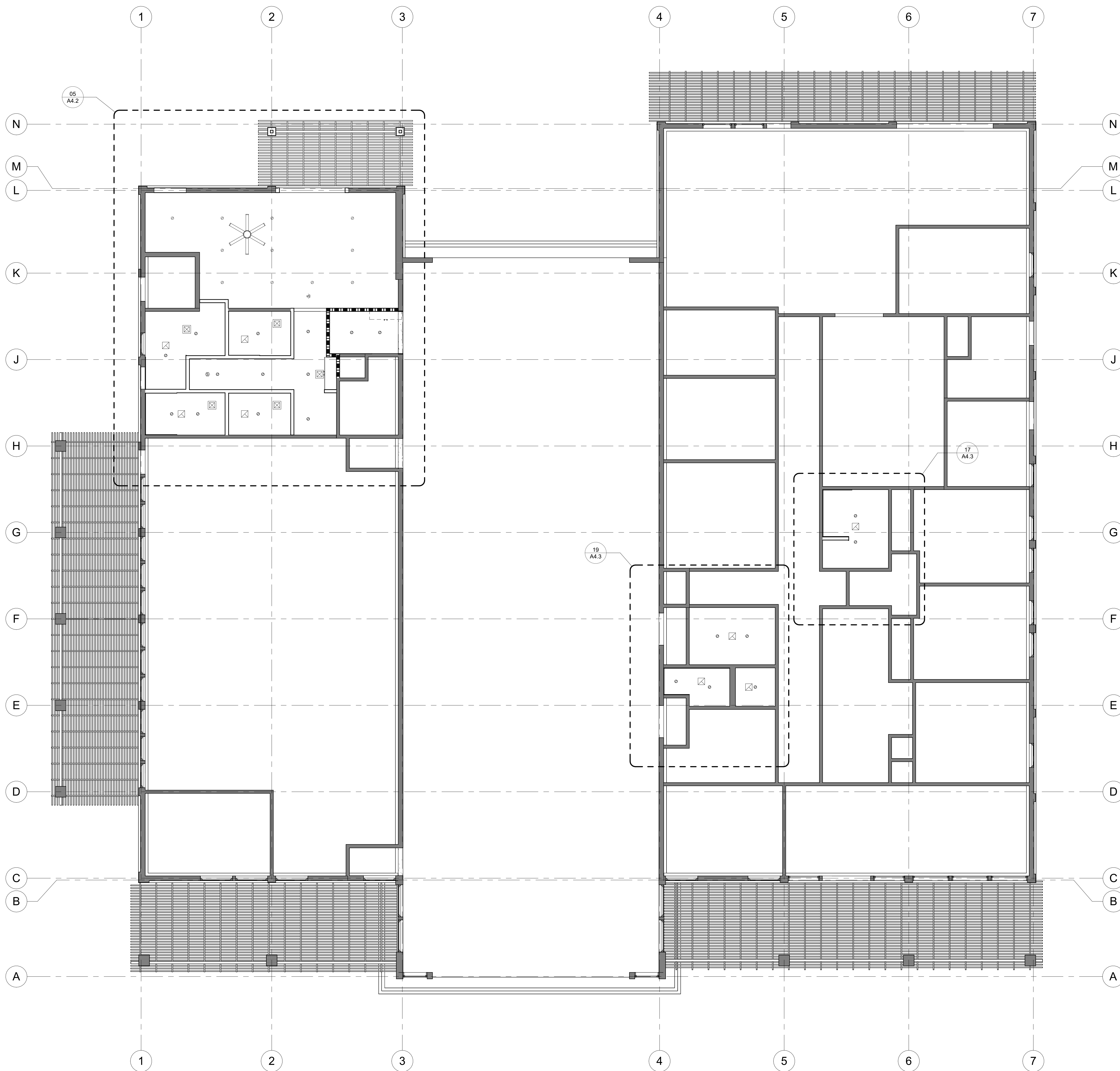
J-BOX FOR BASE ELECTRICAL FEED AT WALL. 4
CIRCUITS, 8 WIRE CONFIGURATION ASSUMED,
MAX 8 STATIONS PER J-BOX. 18" AFF. U.N.O.

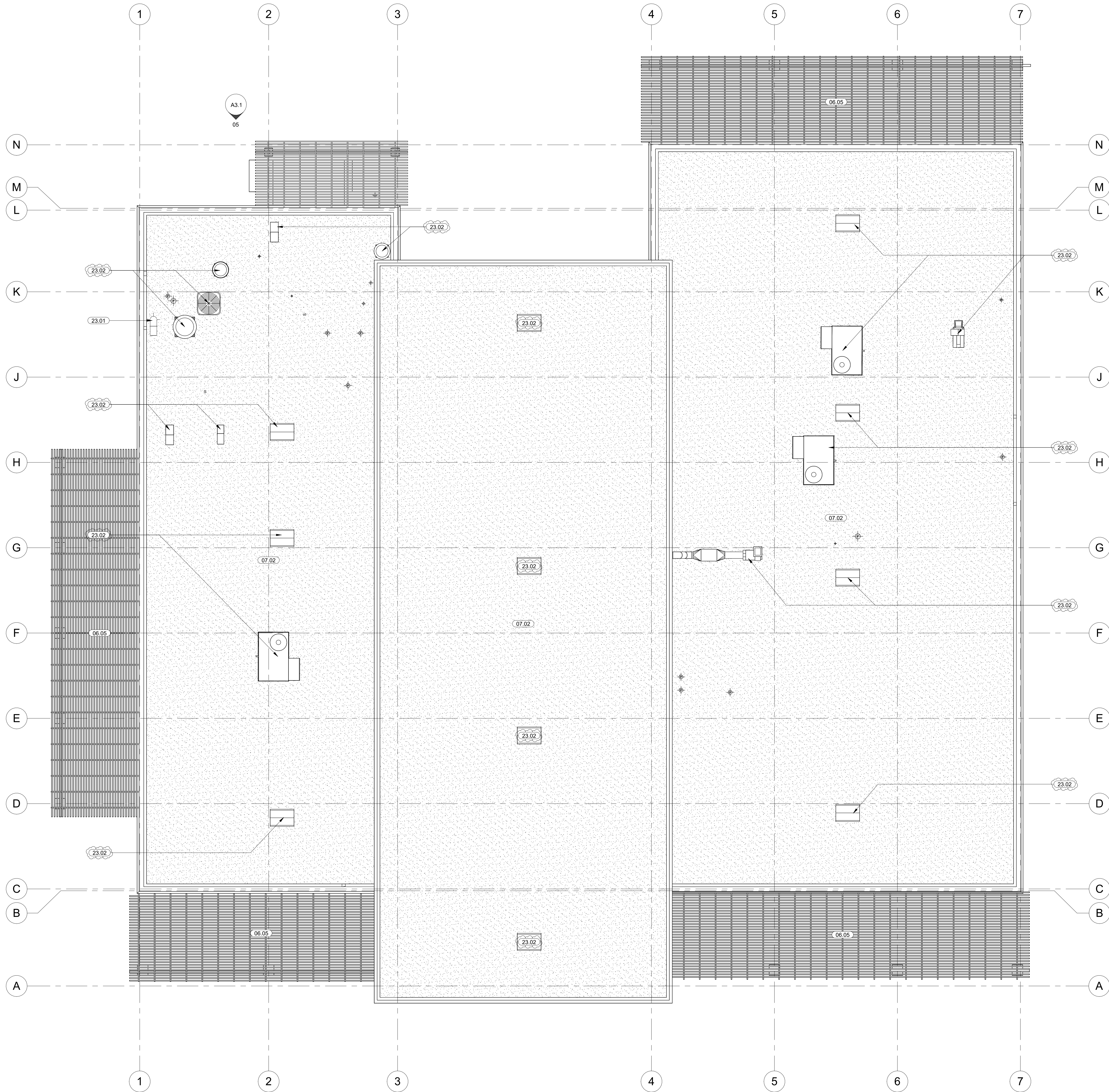
GENERAL NOTES

1. PROVIDE NEW BUILDING STANDARD DUCTWORK AND DIFFUSERS THROUGHOUT AS REQUIRED.
2. AT ALL LOCATIONS WHERE DUCTWORK CONFLICTS WITH NEW WORK, GENERAL CONTRACTOR TO REMOVE, RELOCATE AND/OR REPLACE EXISTING DUCTWORK AS REQUIRED.
3. FLANGELESS LINEAR DIFFUSERS AND SUPPLY VENTS IN ALL GYP. BD. LOCATIONS
4. PROVIDE NEW AS REQUIRED BY REMODEL.
5. SPRINKLER HEADS SHALL ALIGN WITH LIGHT FIXTURES AND SUPPLY GRILLES, U.N.O. SPRINKLER HEADS TO BE CENTERED IN CEILING TILES, TYP.
6. ALL GYP BOARD CEILINGS TO HAVE FULLY RECESSED SPRINKLER HEADS WITH CAPS TO MATCH BUILDING STANDARD COLOR. PAINTED TO MATCH ADJACENT FINISH COLOR.
7. ALL ACT CEILING SPRINKLER HEADS TO MATCH BUILDING STANDARD. COLOR: WHITE

SCHEDULES

SEE SHEET A0.1 FOR FINISH SCHEDULE





LEGEND

 SINGLE PLY ROOFING, REFER TO A8.1

GENERAL NOTES

- (E) ROOF EQUIPMENT TO REMAIN, PROTECT IN PLACE
- PER SECTION 3-10-1.B OF THE ZONING ORDINANCE, SCREENING SHALL BE PROVIDED SO THAT MATERIALS STORED IN ANY OUTDOOR STORAGE AREA AND/OR EQUIPMENT AT GRADE OR ON THE ROOF AREA SCREEN FROM ADJACENT STREETS, NO MATTER THE STREET GRADE, AND ALL PROPERTIES AT THE SAME GRADE

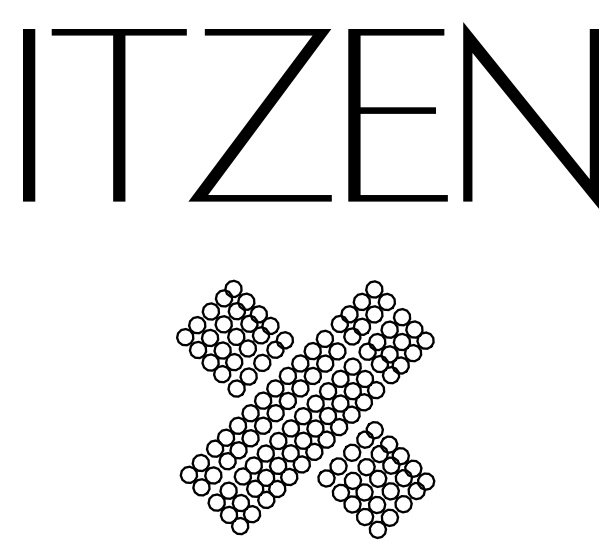
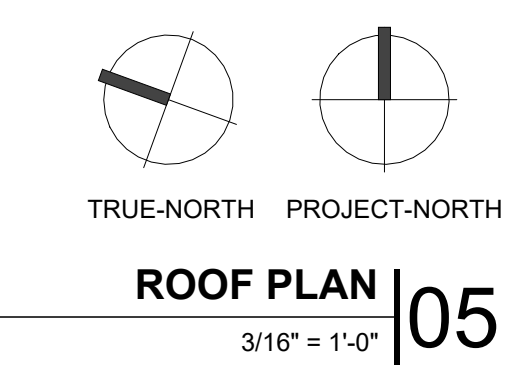
SCHEDULES

SEE SHEET A0.1 FOR FINISH SCHEDULE

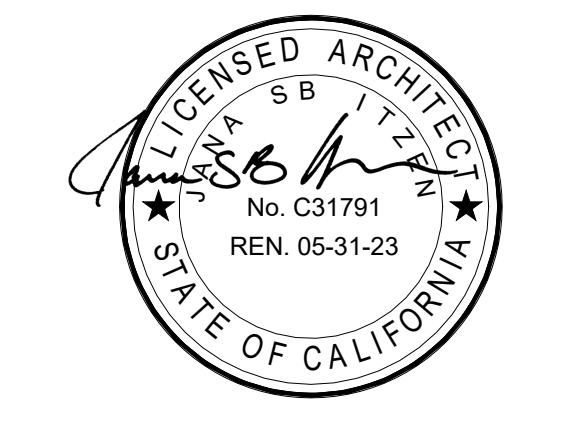
KEYNOTES

06.05	(E) SHADE STRUCTURE
07.02	SINGLE PLY ROOFING MEMBRANE OVER EXISTING SHEATHING, REFER TO DETAIL 08/A8.1 FOR PERIMETER FINISH
23.01	NEW EXHAUST
23.02	(E) MECHANICAL EQUIPMENT TO REMAIN, PROTECT IN PLACE

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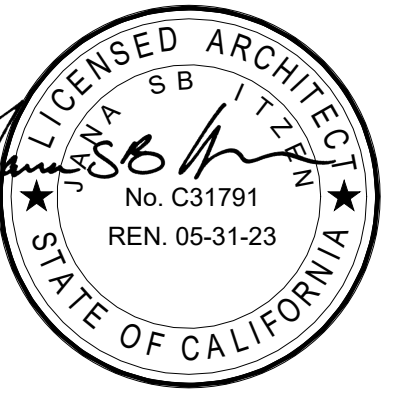
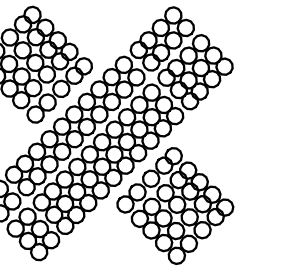
REV	DESCRIPTION	DATE
2	AGENCY RESUBMITTAL #2	04/03/23

Job No. 22004
Date 04/03/23
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ROOF PLAN
A2.3



REV	DESCRIPTION	DATE
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LEGEND

- (E) WALLS TO REMAIN
- (E) RATED WALL
- WALL TYPE - SEE LEGEND BELOW FOR DETAILS
- TYPICAL PARTITION: 02 A9.1
- 1HR PARTITION: 03 A9.1
- FURRING PARTITION: 04 A9.1
- STUD SIZES:

#	DESCRIPTION
2	1 1/2" WOOD STUD
4	3 1/2" METAL STUD
6	5 1/2" METAL STUD
- EXTERIOR PLASTER, REFER TO 01/A8.1
PAINT AND FINISH TO MATCH EXISTING

GENERAL NOTES

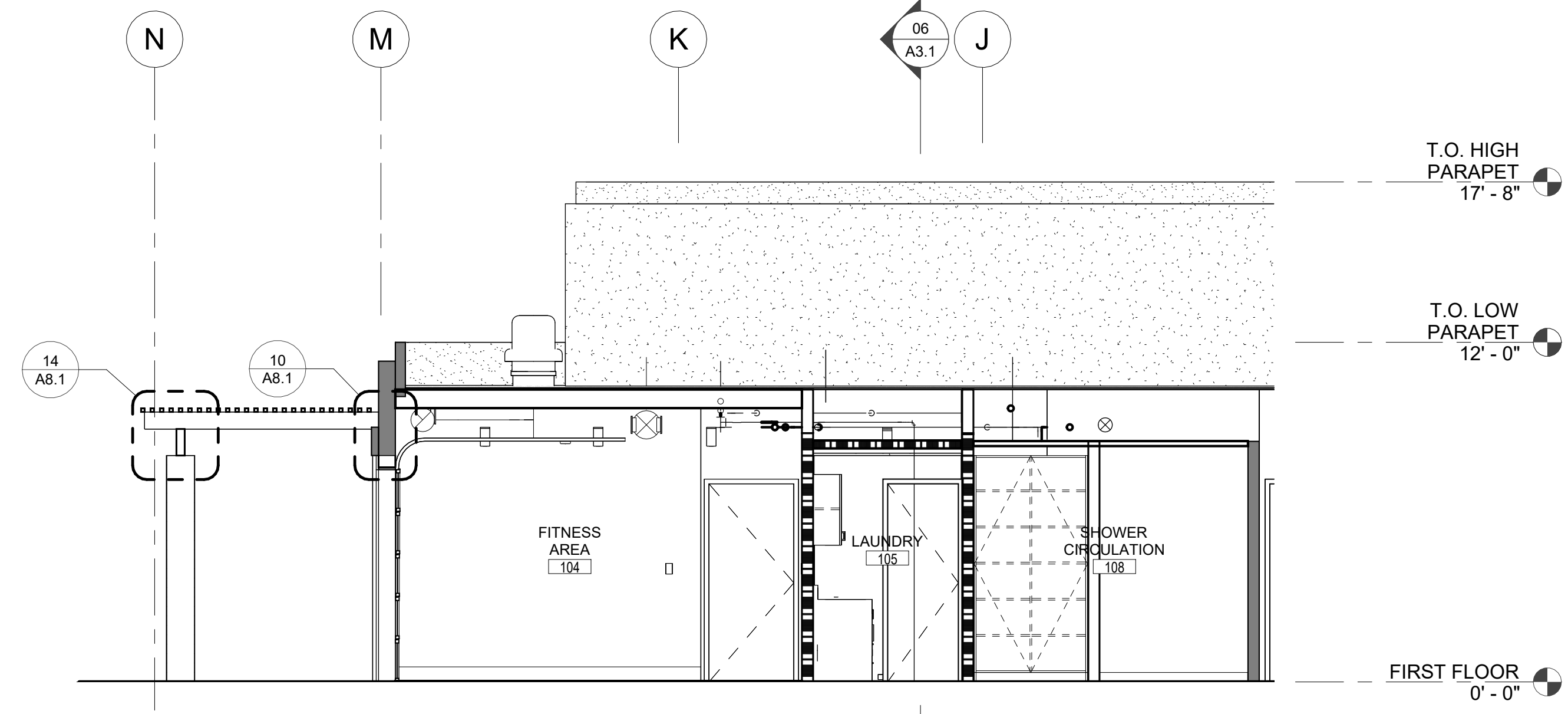
- PROTECT ALL (E) FACADE U.N.O.
- PATCH AND REPAIR PLASTER FINISH, PAINT TO MATCH EXISTING

SCHEDULES

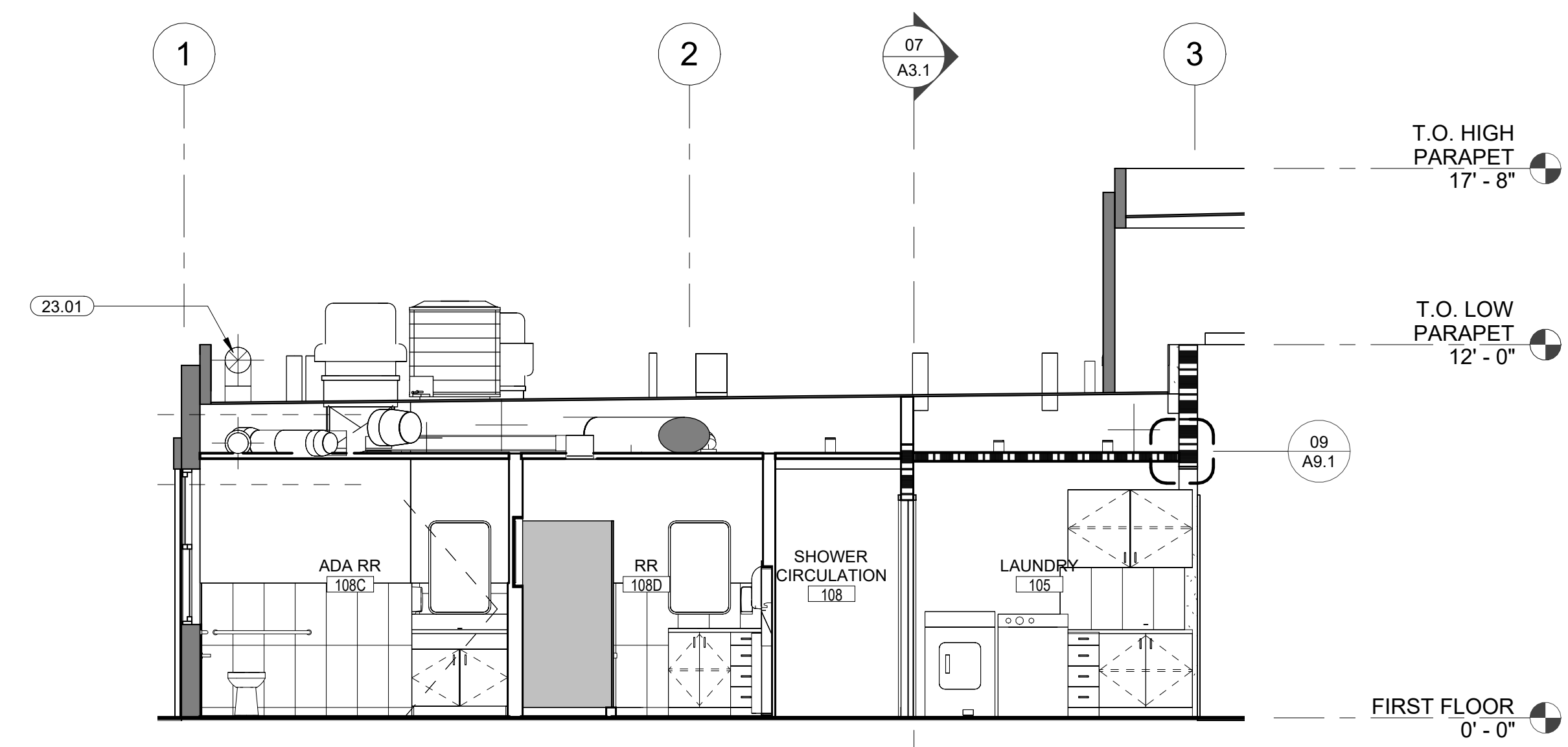
SEE SHEET A0.1 FOR FINISH SCHEDULE

KEYNOTES

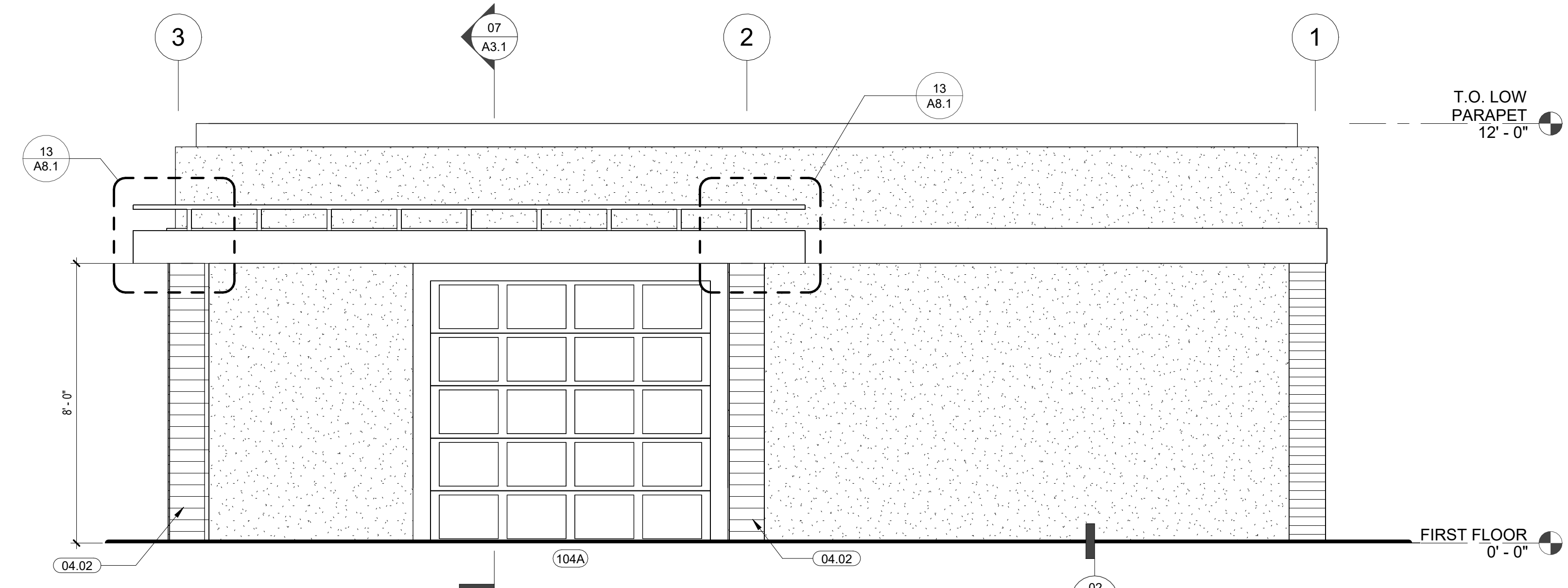
04.02	MASONRY COLUMN TO MATCH EXISTING
23.01	NEW EXHAUST



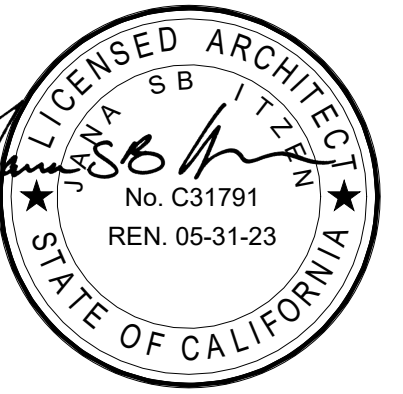
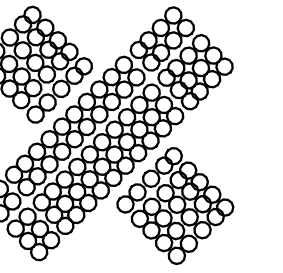
PARTIAL BUILDING SECTION - NORTH SOUTH
1/4" = 1'-0" 07



PARTIAL BUILDING SECTION - EAST WEST
1/4" = 1'-0" 06



GARAGE DOOR ELEVATION
3/8" = 1'-0" 05



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LEGEND

- (E) WALLS TO REMAIN
- (E) RATED WALL
- WALL TYPE - SEE LEGEND BELOW FOR DETAILS
- ◇ A TYPICAL PARTITION: 02 A9.1
- ◇ A 1HR PARTITION: 03 A9.1
- ◇ B FURRING PARTITION: 04 A9.1
- STUD SIZES: # DESCRIPTION
 - 2 1 1/2" WOOD STUD
 - 4 3 1/2" WOOD STUD
 - 6 5 1/2" WOOD STUD
- XX-XX' DENOTES CEILING TYPE
- XXX-X' DENOTES CEILING HEIGHT
- GYM PAINTED GYP. BD. CEILING PAINTED P-1 U.N.O. SEE DETAILS:
- SUPPLY AIR GRILLE - PER MECHANICAL
- RETURN AIR GRILLE - PER MECHANICAL
- EXHAUST AIR GRILLE - PER MECHANICAL
- ⊙ SMOKE DETECTOR
- ⊞ DATA 18" AFF. U.N.O.
- ⊞ QUADPLEX OUTLET 18" AFF. U.N.O.

GENERAL NOTES

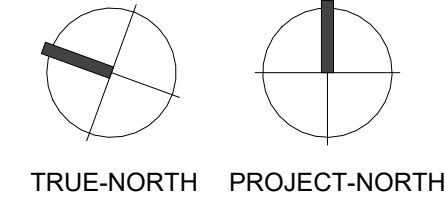
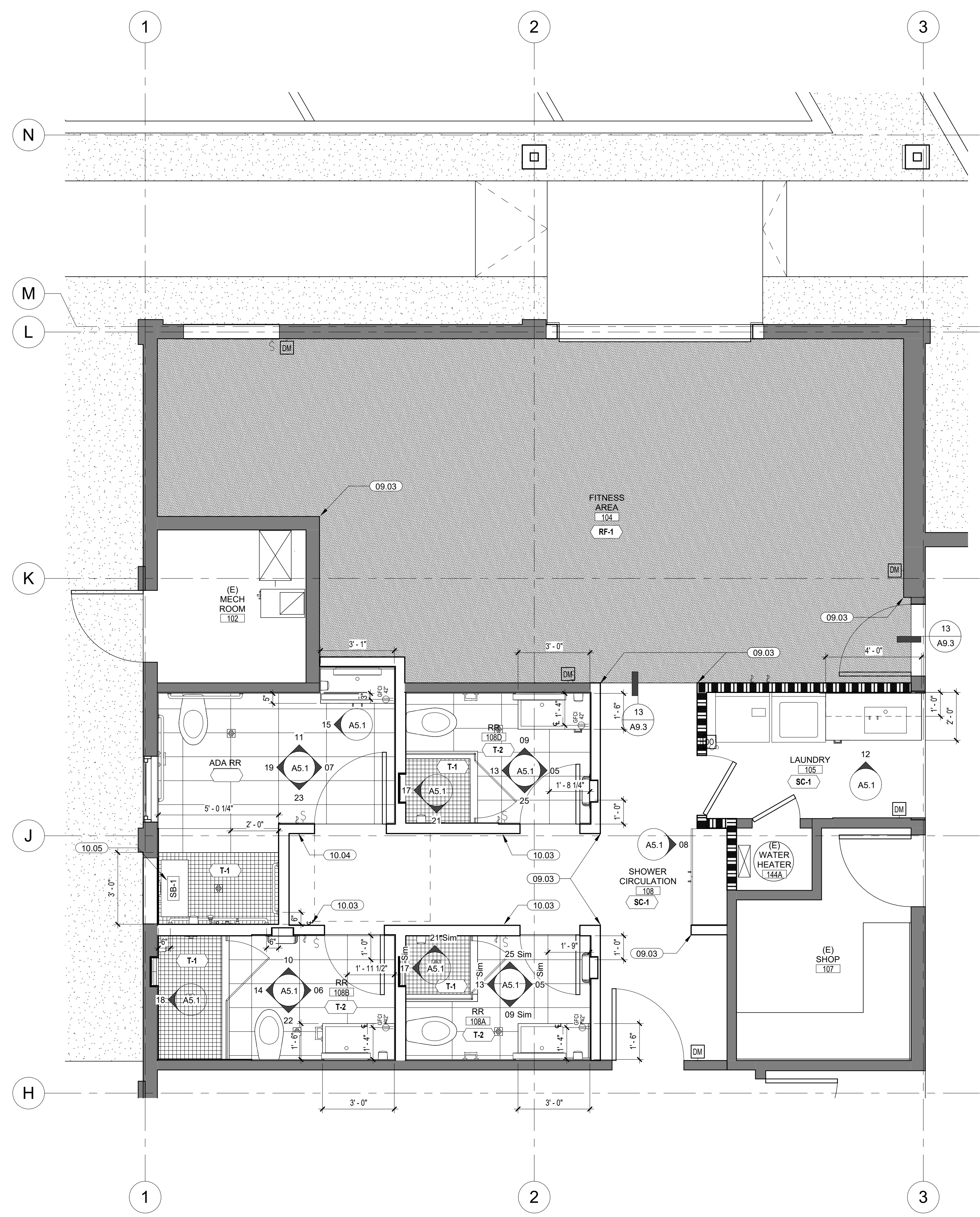
1. DIMENSIONS ARE TO FACE OF FINISH, U.N.O.
2. ALL COMBUSTIBLE MATERIALS IN CEILING TO BE WRAPPED WITH TYPE "X" GYPSUM BOARD, AND/OR BE FIRE RATED PER APPLICABLE CODES.
3. ALL ACCESS PANELS IN GYPSUM BOARD CEILINGS TO BE FLUSH PAINTED METAL ACCESS DOORS. CONFIRM LAYOUT/LOCATION WITH ARCHITECT PRIOR TO INSTALLATION.
4. ALL CEILING FIXTURE CENTERLINES TO ALIGN WHERE APPLICABLE.
5. REFER TO ELECTRICAL DRAWING FOR ALL LIGHT FIXTURES CIRCUITING AND ADDITIONAL INFORMATION.
6. SLOPE TILE TO FLOOR DRAIN IN SHOWERS, NOT TO EXCEED 2% SLOPE IN ANY DIRECTION
7. TYPICAL CEILING FRAMING: 12/A9.3
8. SLOPED CEILING FRAMING: 08/A9.3

SCHEDULES

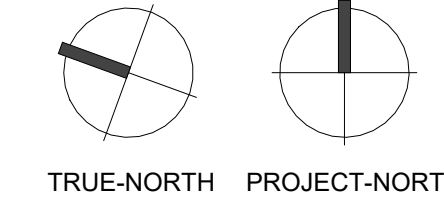
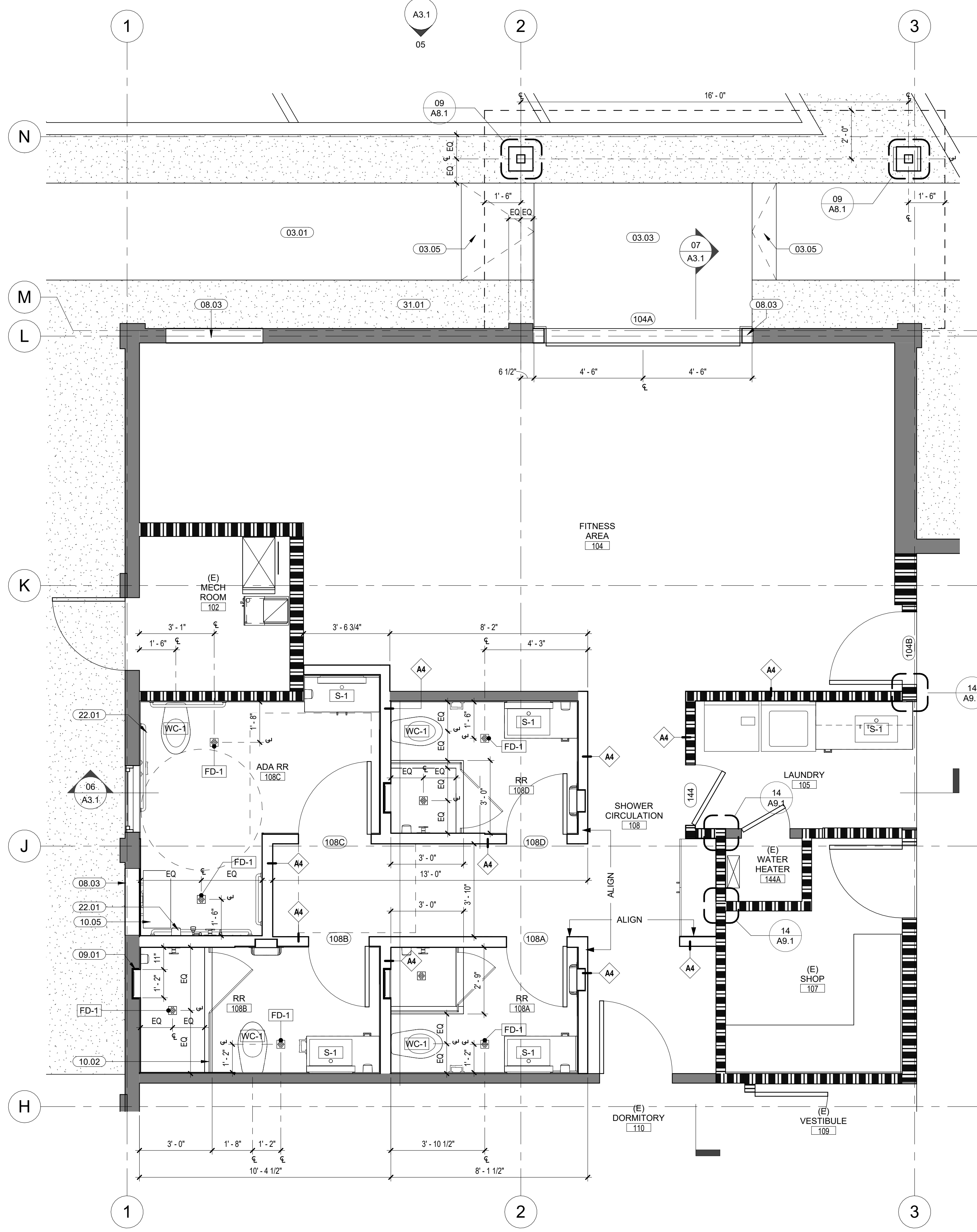
SEE SHEET A0.1 FOR ADDITIONAL SCHEDULE

KEYNOTES

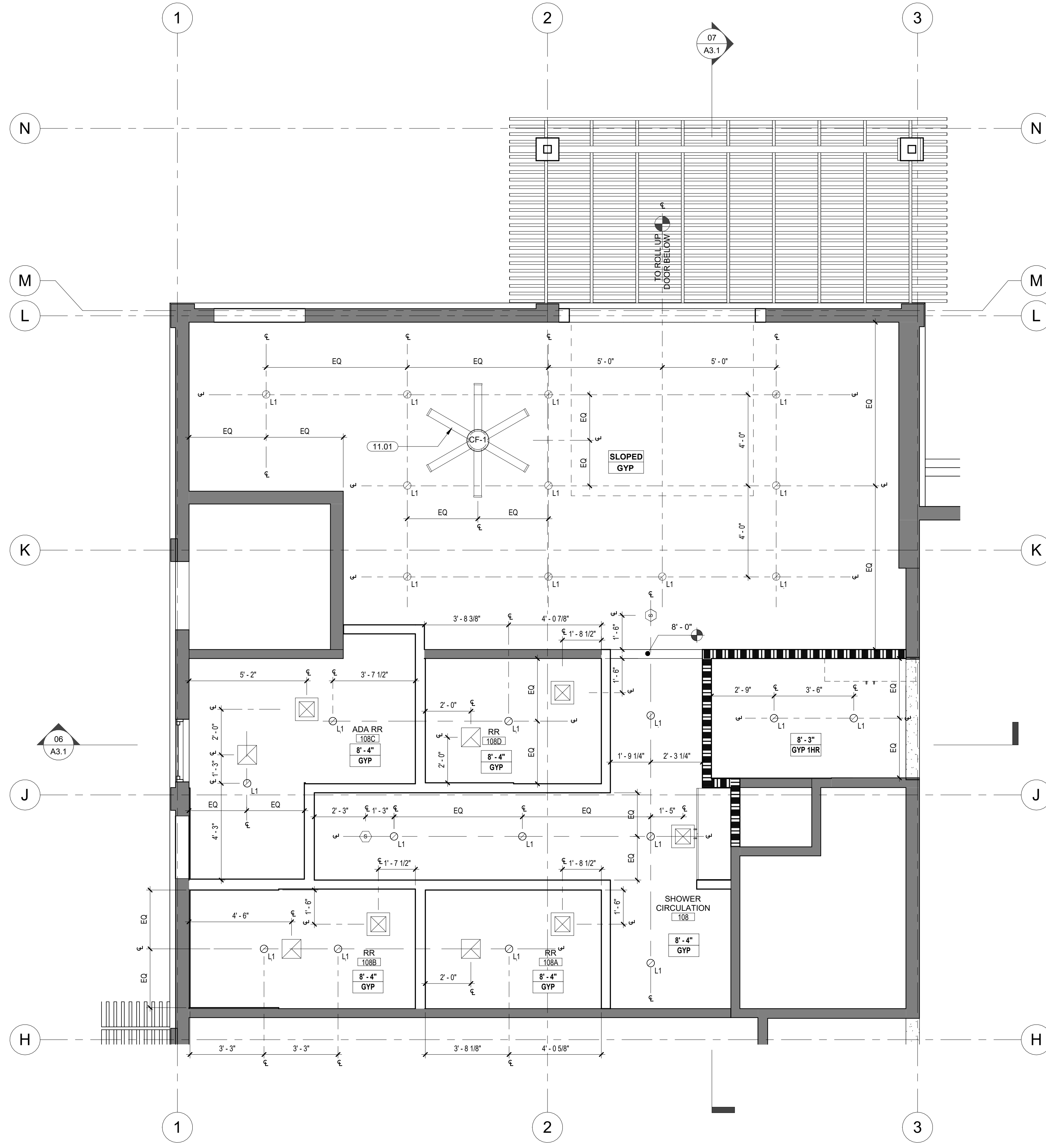
- 03.01 (E) WALKWAY
- 03.03 LEVEL CONCRETE LANDING, SET -1/2" BELOW FINISH FLOOR
- 03.05 SLOPE AREA FROM (E)WALKWAY TO NEW LANDING, SLOPE NOT TO EXCEED 1:12
- 08.03 INFILL FRAMING, FINISH TO MATCH EXISTING
- 09.01 TILE NICHE WITH AQUA FOG-FREE ELECTRIC MIRROR, PROVIDE 12V POWER. REFER TO DETAIL 05/A9.3
- 09.03 APPLY CORNER GUARD IN THIS LOCATION, REFER TO DETAIL 11/A9.3
- 10.02 GLASS SHOWER ENCLOSURE
- 10.03 UNISEX RESTROOM SIGNAGE, REFER TO DETAILS 16 AND 20 ON A9.2
- 10.04 ACCESSIBLE UNISEX RESTROOM SIGNAGE, REFER TO DETAILS 16 AND 20 ON A9.2
- 10.05 SHOWER COMPARTMENT SEAT IN ACCORDANCE WITH 11B-610.3. REFER TO DETAIL 14/19.2
- 22.01 (E) PLUMBING FIXTURE TO REMAIN
- 31.01 (E) PLANTING AREA



SHOWER AND FITNESS - FINISH PLAN
3/8" = 1'-0" 13



SHOWER AND FITNESS - FLOOR PLAN
3/8" = 1'-0" 05



LEGEND

- (E) WALLS TO REMAIN
- (E) RATED WALL
- WALL TYPE - SEE LEGEND BELOW FOR DETAILS
- TYPICAL PARTITION: 02 A9.1
- 1HR PARTITION: 03 A9.1
- FURRING PARTITION: 04 A9.1

STUD SIZES:

#	DESCRIPTION
2	1 1/2" WOOD STUD
4	3 1/2" WOOD STUD
6	5 1/2" WOOD STUD

- DENOTES CEILING TYPE
- DENOTES CEILING HEIGHT
- GYP
PAINTED GYP, BD. CEILING
PAINTED P-1 U.N.O. SEE
DETAILS.
- SUPPLY AIR GRILLE - PER MECHANICAL
- RETURN AIR GRILLE - PER MECHANICAL
- EXHAUST AIR GRILLE - PER MECHANICAL
- SMOKE DETECTOR
- DATA 18" AFF. U.N.O.
- QUADPLEX OUTLET 18" AFF. U.N.O.

GENERAL NOTES

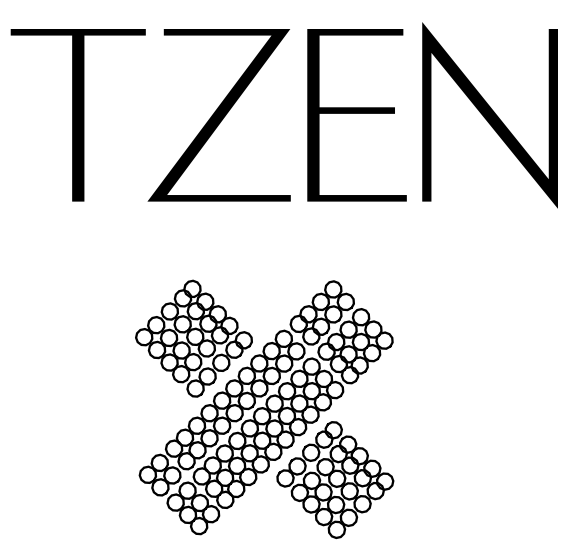
- DIMENSIONS ARE TO FACE OF FINISH, U.N.O.
- ALL COMBUSTIBLE MATERIALS IN CEILING TO BE WRAPPED WITH TYPE "X" GYPSUM BOARD, AND/OR BE FIRE RATED PER APPLICABLE CODES.
- ALL ACCESS PANELS IN GYPSUM BOARD CEILINGS TO BE FLUSH PAINTED METAL ACCESS DOORS. CONFIRM LAYOUT/LOCATION WITH ARCHITECT PRIOR TO INSTALLATION.
- ALL CEILING FIXTURE CENTERLINES TO ALIGN WHERE APPLICABLE.
- REFER TO ELECTRICAL DRAWING FOR ALL LIGHT FIXTURES CIRCUITING AND ADDITIONAL INFORMATION.
- SLOPE TILE TO FLOOR DRAIN IN SHOWERS, NOT TO EXCEED 2% SLOPE IN ANY DIRECTION
- TYPICAL CEILING FRAMING: 12/A9.3
- SLOPED CEILING FRAMING: 08/A9.3

SCHEDULES

SEE SHEET A0.1 FOR ADDITIONAL SCHEDULE

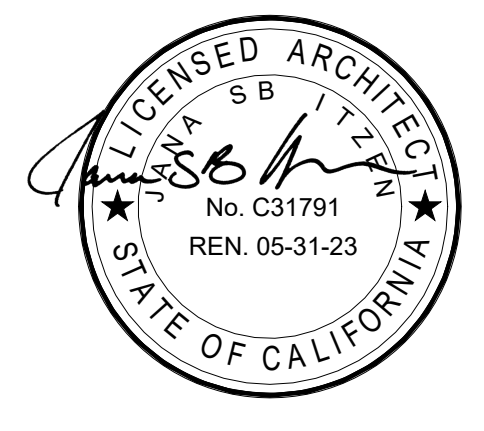
KEYNOTES

11.01	CEILING FAN
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714-716-5042
sayhello@ITZEN.com

mailing:
1800 N. Bristol Street #C-418
Santa Ana CA 92706 www.ITZEN.com



OCFA FIRE STATION #4

2 CALIFORNIA AVE
IRVINE, CA 92612

ORANGE COUNTY FIRE AUTHORITY

FOR PLAN REVIEW ONLY

REV	DESCRIPTION	DATE

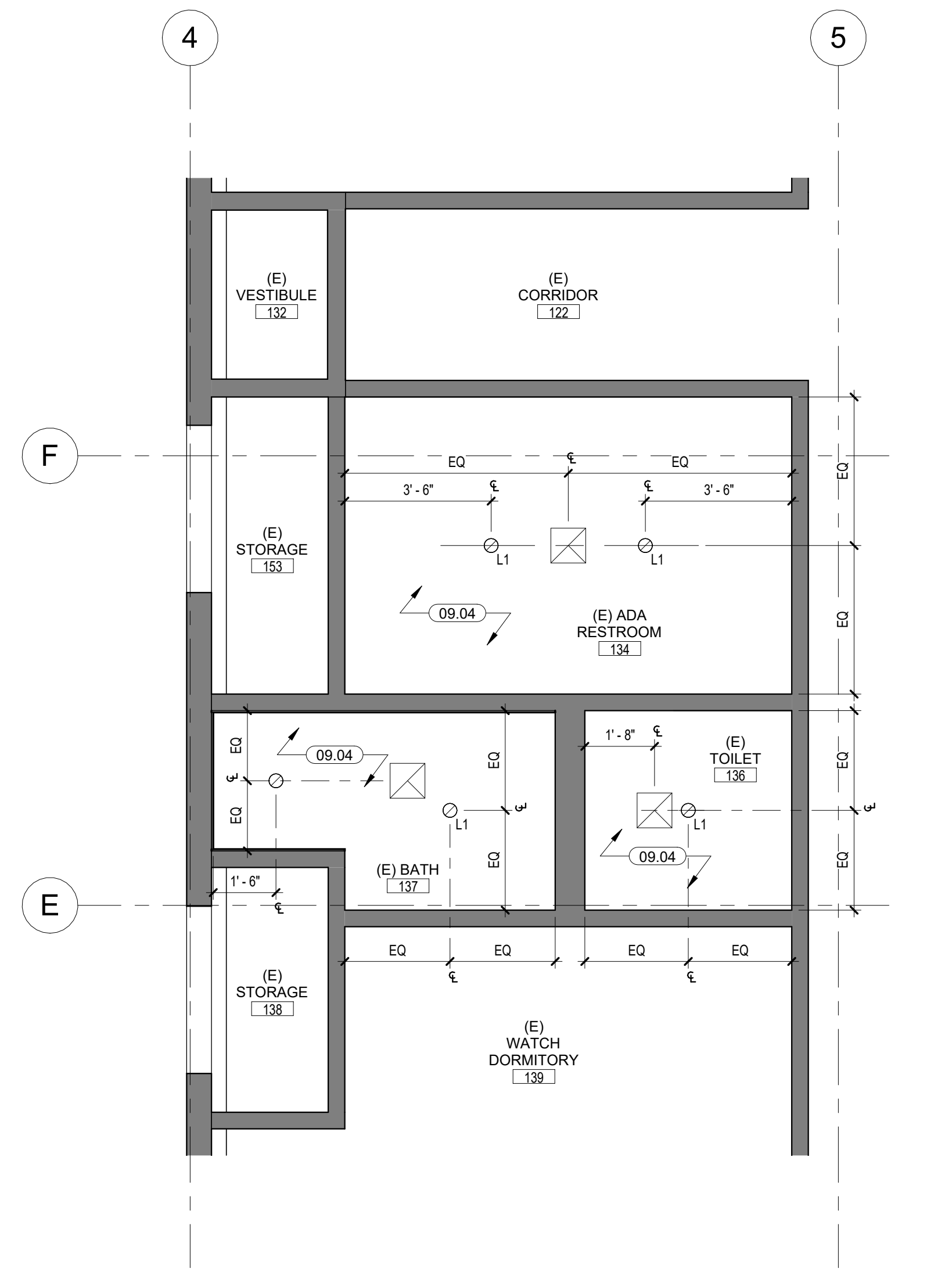
Job No. **22004**
Date **04/03/23**
Drawn/Checked by **AL**
Scale **As Indicated**

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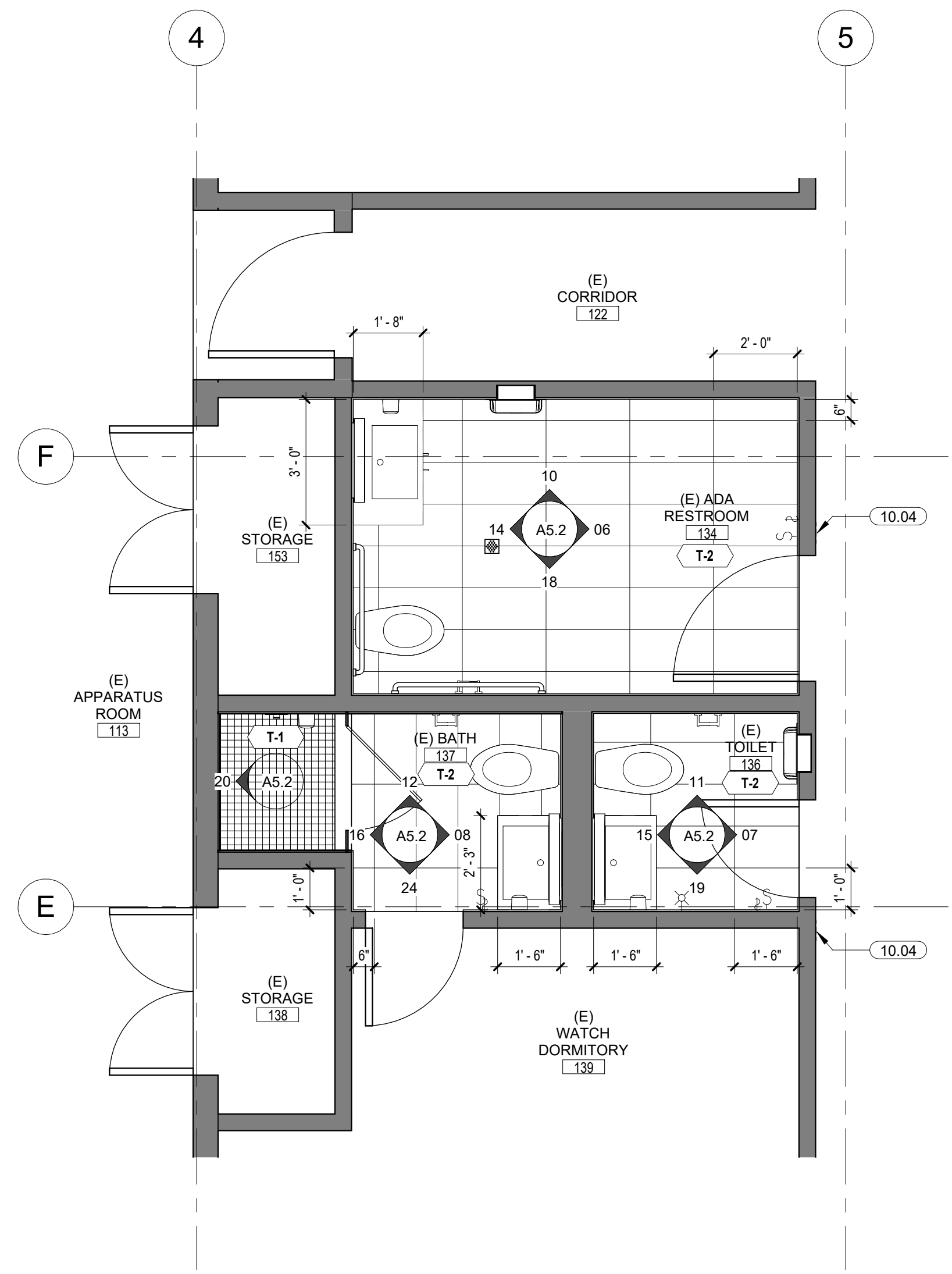
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ENLARGED SHOWER AND FITNESS RCP

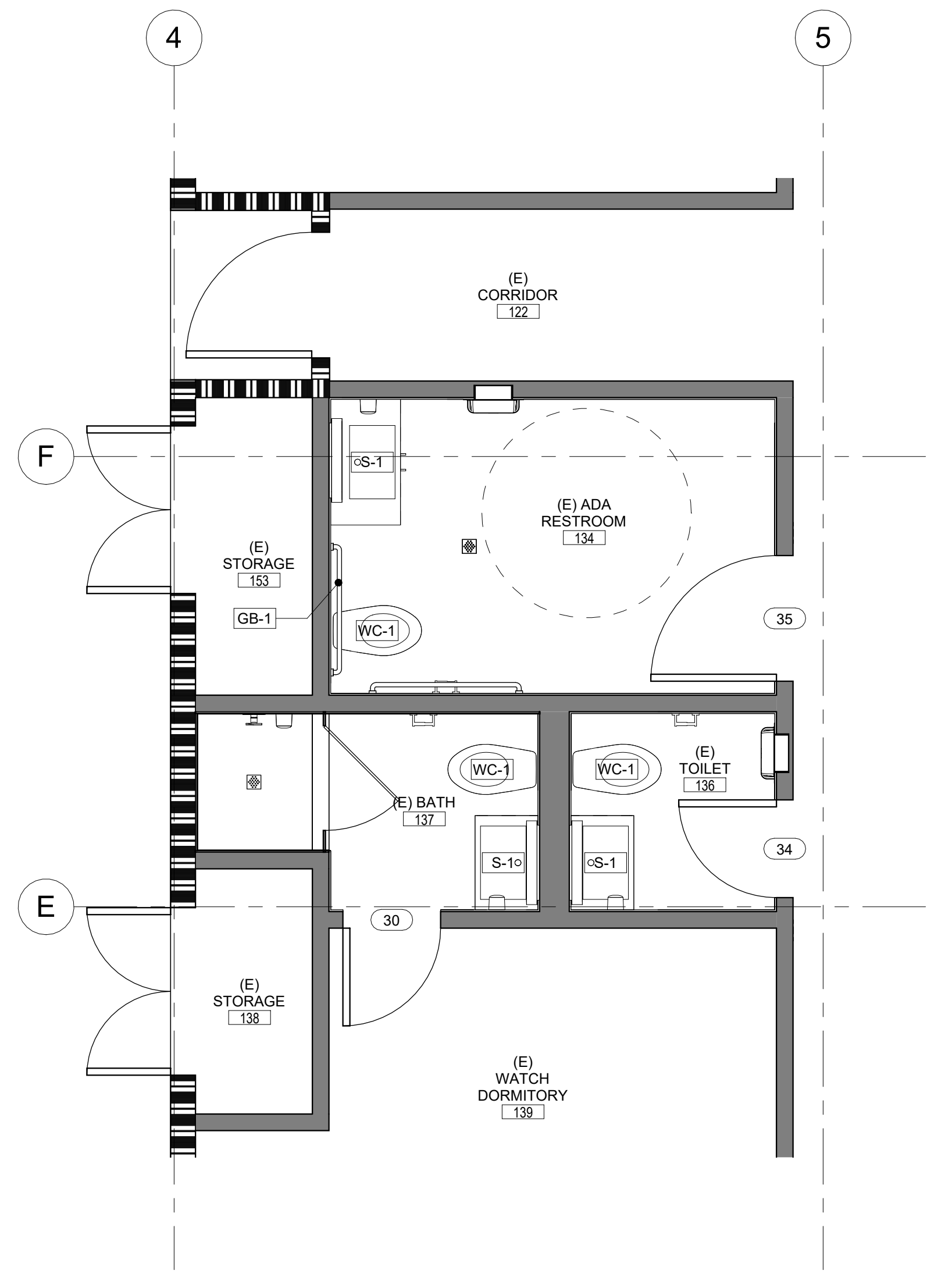
A4.2



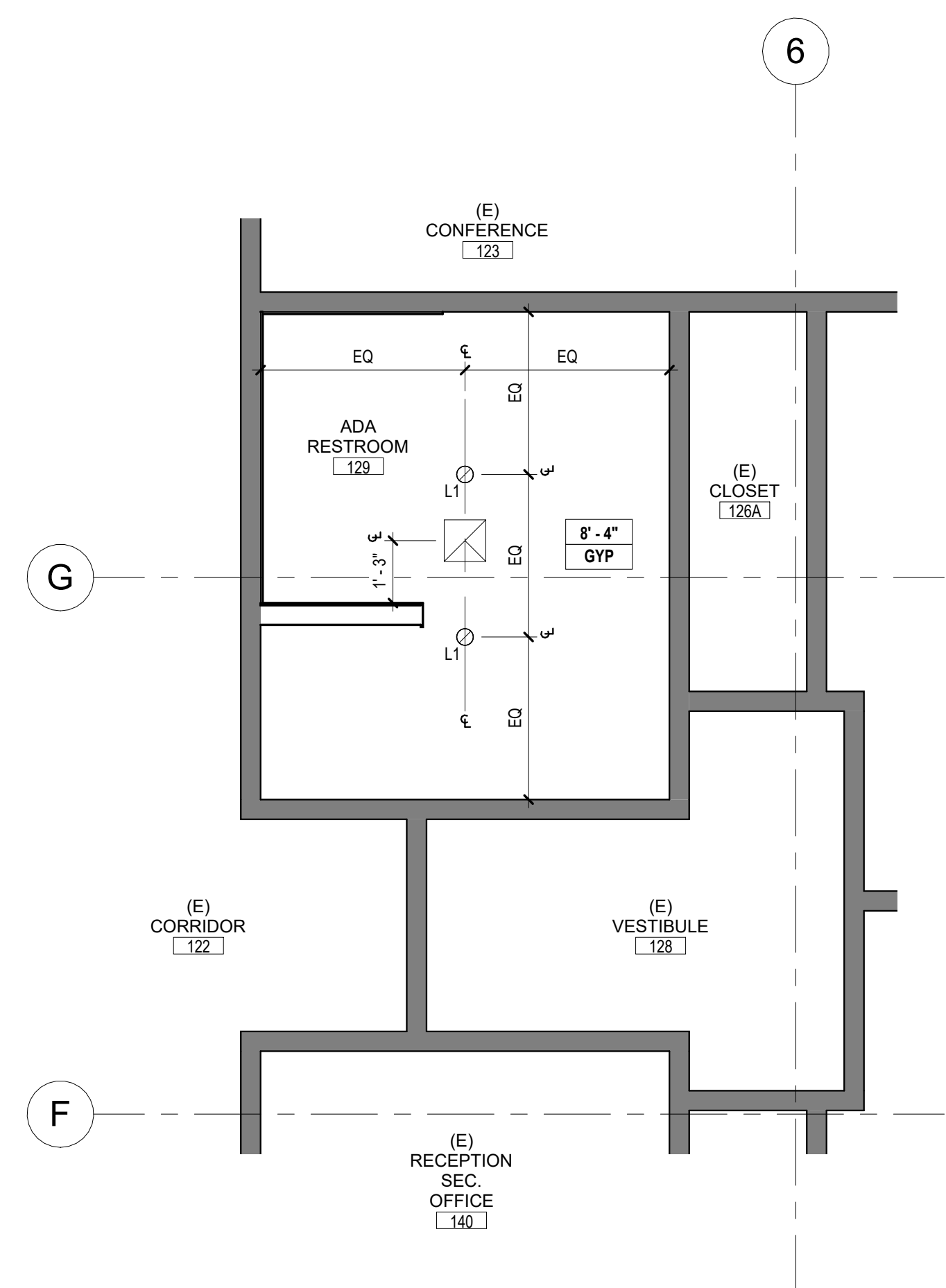
(E) RESTROOMS REFLECTED CEILING PLAN 19
3/8" = 1'-0"



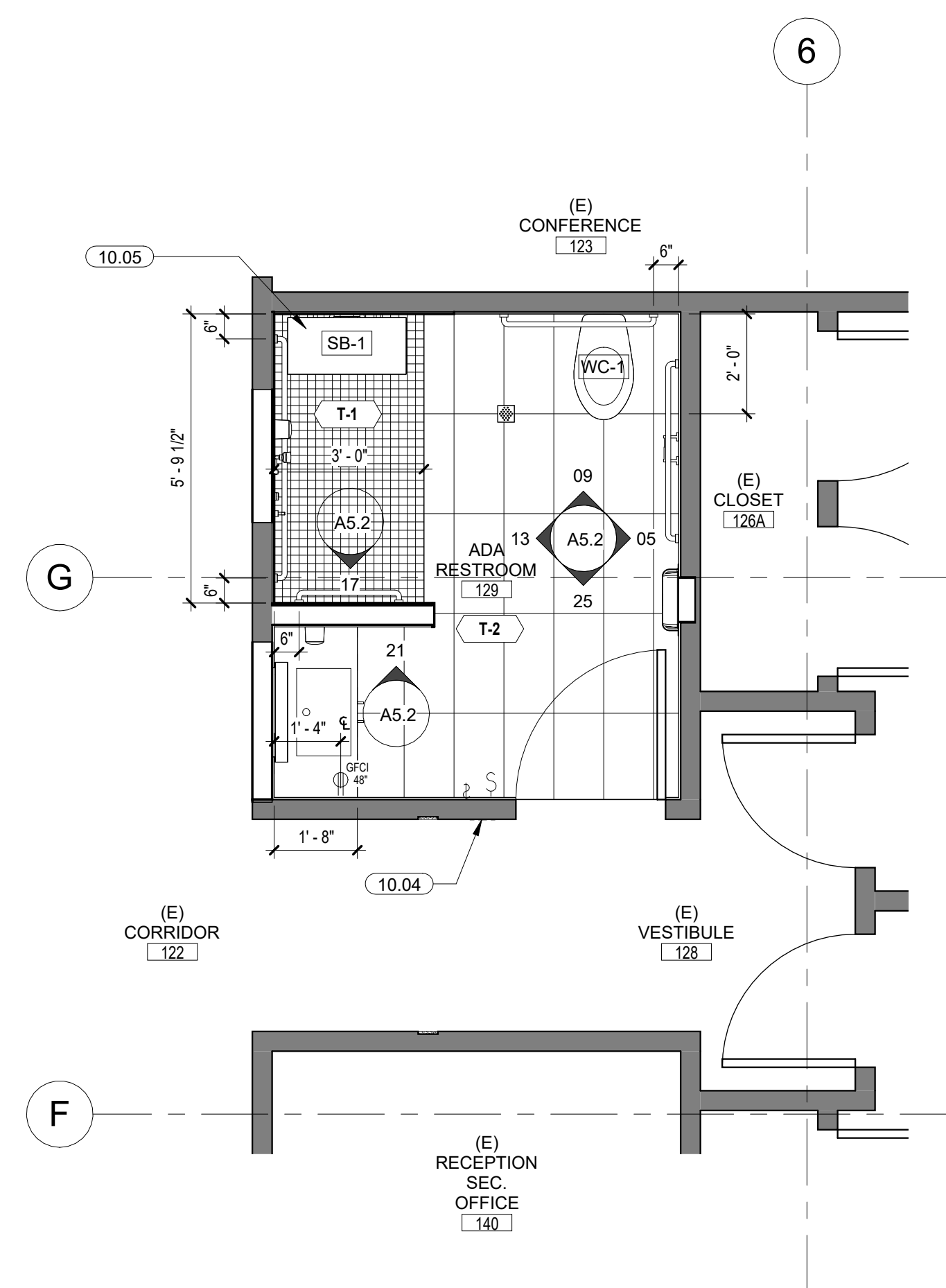
(E) RESTROOMS - FINISH PLAN 11
3/8" = 1'-0"



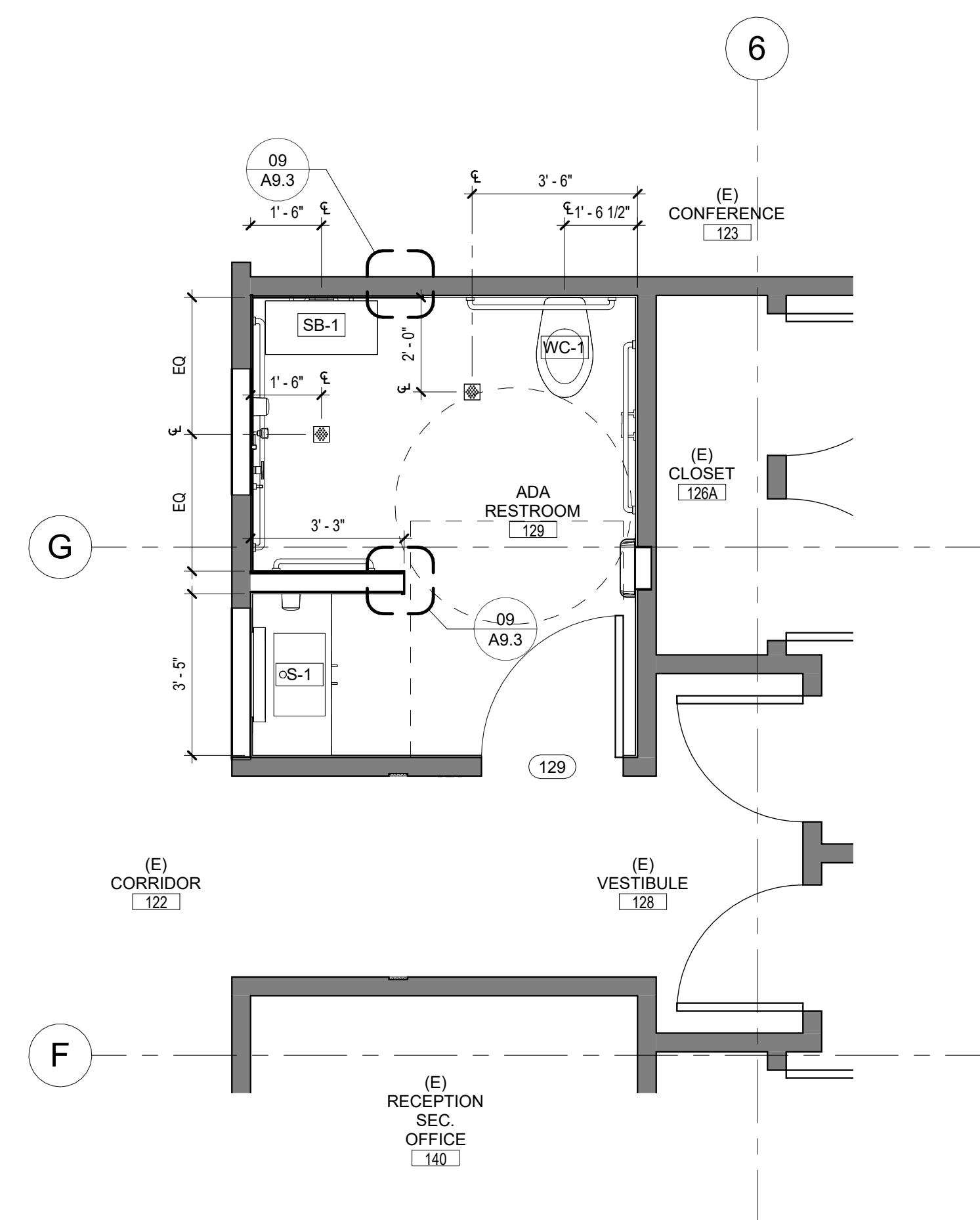
(E) RESTROOMS - FLOOR PLAN 07
3/8" = 1'-0"



ADA RESTROOM - REFLECTED CEILING PLAN 17
3/8" = 1'-0"



ADA RESTROOM - FINISH PLAN 09
3/8" = 1'-0"



ADA RESTROOM - FLOOR PLAN 05
3/8" = 1'-0"

LEGEND

- (E) WALLS TO REMAIN
- (E) RATED WALL
- WALL TYPE - SEE LEGEND BELOW FOR DETAILS
- ◇ A TYPICAL PARTITION: 02 A9.1
- ◇ A 1HR PARTITION: 03 A9.1
- ◇ B FURRING PARTITION: 04 A9.1
- STUD SIZES: # DESCRIPTION
 - 2 1 1/2" WOOD STUD
 - 4 3 1/2" WOOD STUD
 - 6 5 1/2" WOOD STUD
- XX-XX" DENOTES CEILING TYPE
- XXX-X" DENOTES CEILING HEIGHT
- GYP PAINTED GYP. BD. CEILING PAINTED P-1 U.N.O. SEE DETAILS:
- SUPPLY AIR GRILLE - PER MECHANICAL
- RETURN AIR GRILLE - PER MECHANICAL
- EXHAUST AIR GRILLE - PER MECHANICAL
- SMOKE DETECTOR
- DATA 18" AFF. U.N.O.
- QUADPLEX OUTLET 18" AFF. U.N.O.

GENERAL NOTES

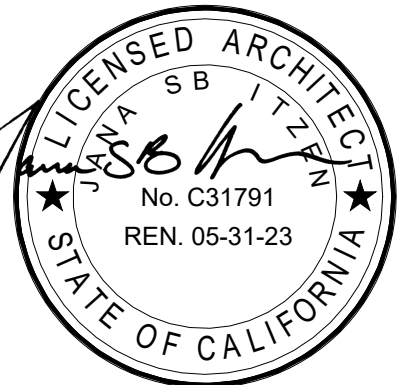
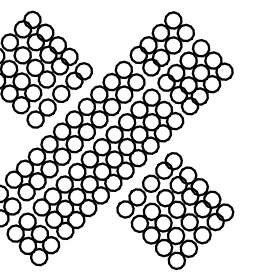
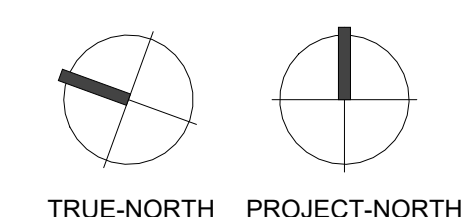
1. DIMENSIONS ARE TO FACE OF FINISH, U.N.O.
2. ALL COMBUSTIBLE MATERIALS IN CEILING TO BE WRAPPED WITH TYPE "X" GYPSUM BOARD, AND/OR BE FIRE RATED PER APPLICABLE CODES.
3. ALL ACCESS PANELS IN GYPSUM BOARD CEILINGS TO BE FLUSH PAINTED METAL ACCESS DOORS. CONFIRM LAYOUT/LOCATION WITH ARCHITECT PRIOR TO INSTALLATION.
4. ALL CEILING FIXTURE CENTERLINES TO ALIGN WHERE APPLICABLE.
5. REFER TO ELECTRICAL DRAWING FOR ALL LIGHT FIXTURES CIRCUITING AND ADDITIONAL INFORMATION.
6. SLOPE TILE TO FLOOR DRAIN IN SHOWERS, NOT TO EXCEED 2% SLOPE IN ANY DIRECTION
7. TYPICAL CEILING FRAMING: 12/A9.3
8. SLOPED CEILING FRAMING: 08/A9.3

SCHEDULES

SEE SHEET A0.1 FOR ADDITIONAL SCHEDULE

KEYNOTES

- 10.04 (E) CEILING, PATCH AND REPAIR ALL OPENINGS FROM PREVIOUS EQUIPMENT
- 10.04 ACCESSIBLE UNISEX RESTROOM SIGNAGE, REFER TO DETAILS 16 AND 20 ON A9.2
- 10.05 SHOWER COMPARTMENT SEAT IN ACCORDANCE WITH 11B-610.3. REFER TO DETAIL 14/19.2

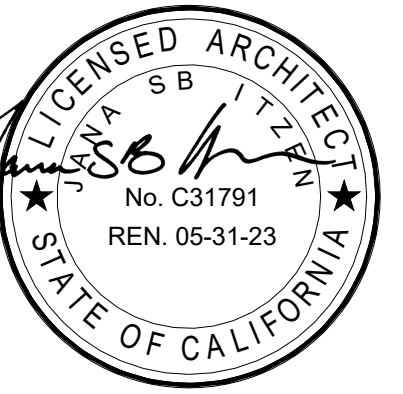
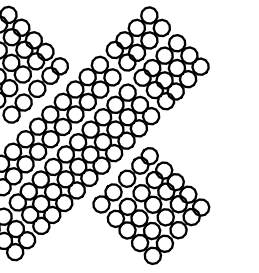


REV	DESCRIPTION	DATE
1	AGENCY RESUBMITTAL #1	11/18/22

Job No. 22004
Date 04/03/23
Drawn/Checked by AL
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LEGEND

- ? FINISH TAG
- 11 EQUIPMENT TAG

GENERAL NOTES

1. DIMENSIONS ARE TO FACE OF FINISH, U.N.O.
2. ALL COMBUSTIBLE MATERIALS IN CEILING TO BE WRAPPED WITH TYPE "X" GYPSUM BOARD, AND/OR BE FIRE RATED PER APPLICABLE CODES.
3. ALL ACCESS PANELS IN GYPSUM BOARD CEILINGS TO BE FLUSH PAINTED METAL ACCESS DOORS. CONFIRM LAYOUT/LOCATION WITH ARCHITECT PRIOR TO INSTALLATION.
4. REFER TO ELECTRICAL DRAWING FOR ALL FIXTURE CIRCUITING AND ADDITIONAL INFORMATION.
5. ALL FIXTURE CENTERLINES TO ALIGN WHERE APPLICABLE
6. U.N.O. ALL VERTICAL SURFACES, SOFFITS, CEILINGS TO BE PAINTED P-1
7. ALIGN FLOOR AND WALL GROUT JOINTS
8. PROVIDE WATER RESISTANT COATING ON CASEWORK TOE KICKS. SEAL TOE KICK TO TILE WITH WATER PROOF SEALANT
9. REFER TO SHEET A9.2 FOR ALL MOUNTING HEIGHT REQUIREMENTS

SCHEDULES

SEE SHEET A0.1 FOR FINISH SCHEDULE

KEYNOTES

06.02	CDS 254, SIZE PER PLANE/ELEVATION
06.03	CDS 102, SIZE PER PLANE/ELEVATION
06.04	CDS 412, SIZE PER PLANE/ELEVATION
06.07	CDS 302, SIZE PER PLANE/ELEVATION
08.01	(E) WINDOW, PROVIDE PRIVACY FILM SUITABLE FOR WETROOM
09.01	TILE NICHE WITH AQUA FOG-FREE ELECTRIC MIRROR, PROVIDE 12V POWER, REFER TO DETAIL 05/A9.3
10.02	GLASS SHOWER ENCLOSURE
26.01	GFCI OUTLET, REFER TO ELECTRICAL DRAWINGS
26.02	LIGHT SWITCH, REFER TO ELECTRICAL DRAWINGS
26.03	LIGHTED MIRROR, REFER TO LIGHT FIXTURE SCHEDULE

OCFA FIRE STATION #4

2 CALIFORNIA AVE
IRVINE, CA 92612

ORANGE COUNTY FIRE AUTHORITY

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REV	DESCRIPTION	DATE

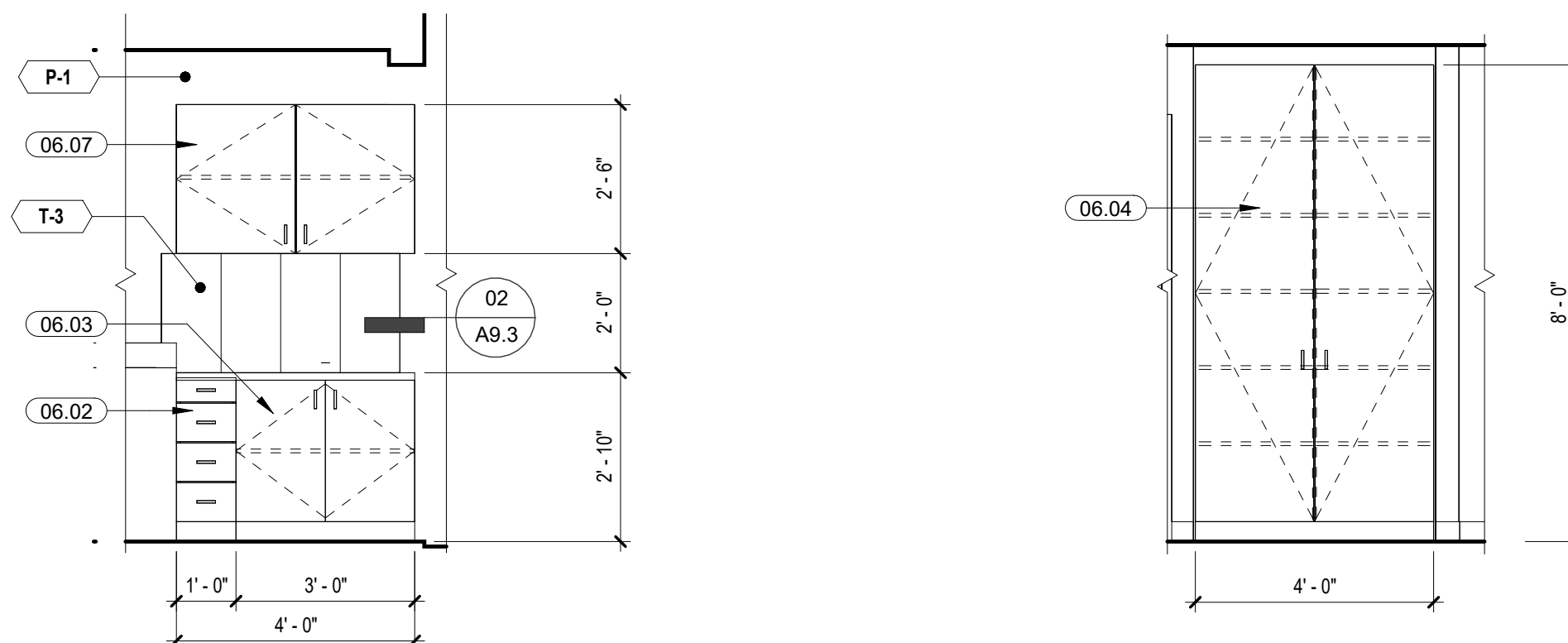
Job No. **22004**
Date **04/03/23**
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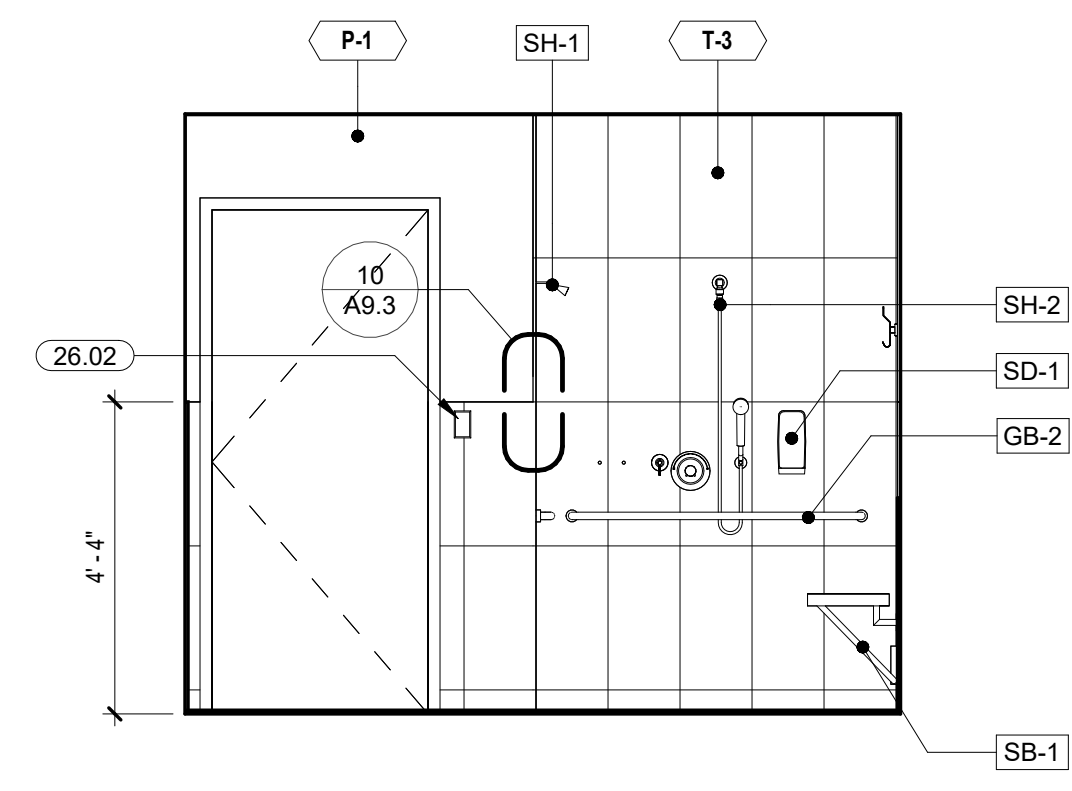
INTERIOR ELEVATIONS

A5.1

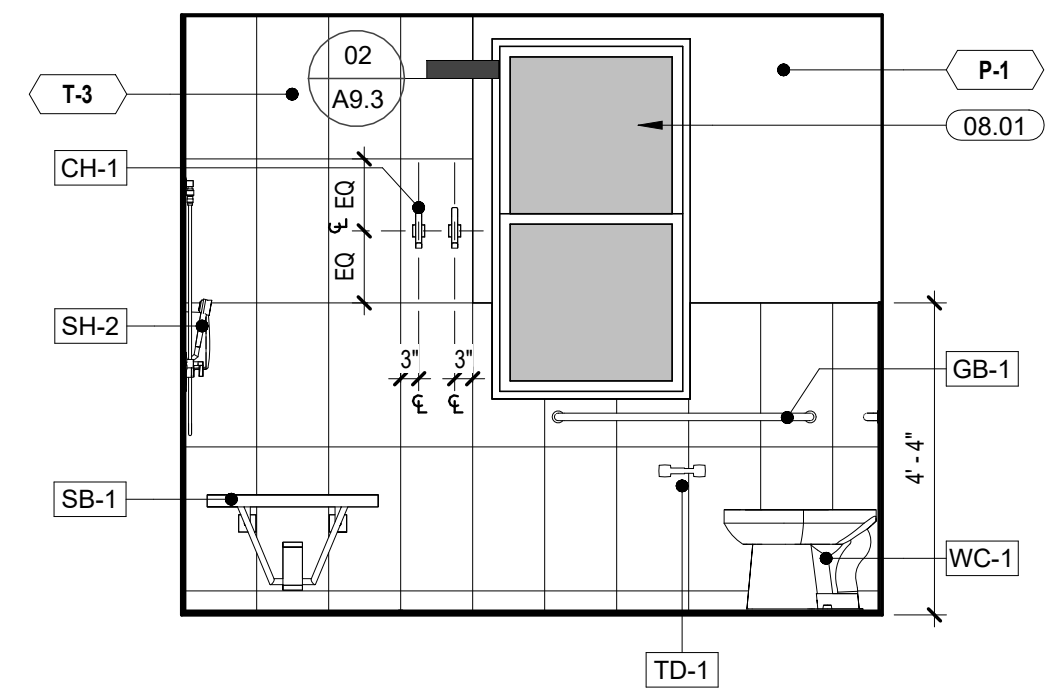


105 - CASEWORK
3/8" = 1'-0" | 12

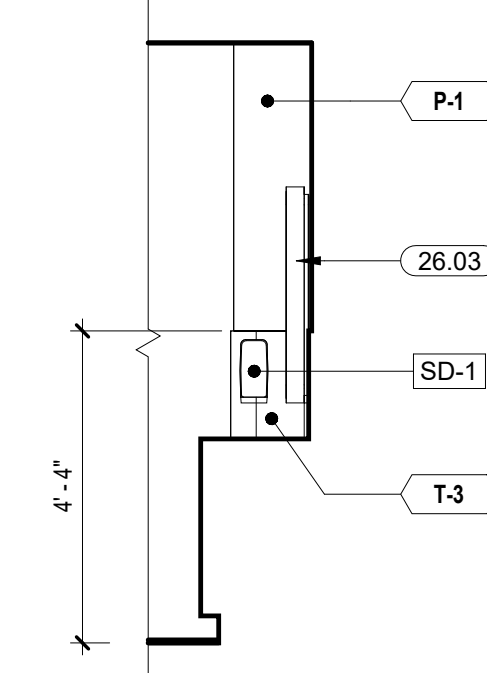
108 - CASEWORK
3/8" = 1'-0" | 08



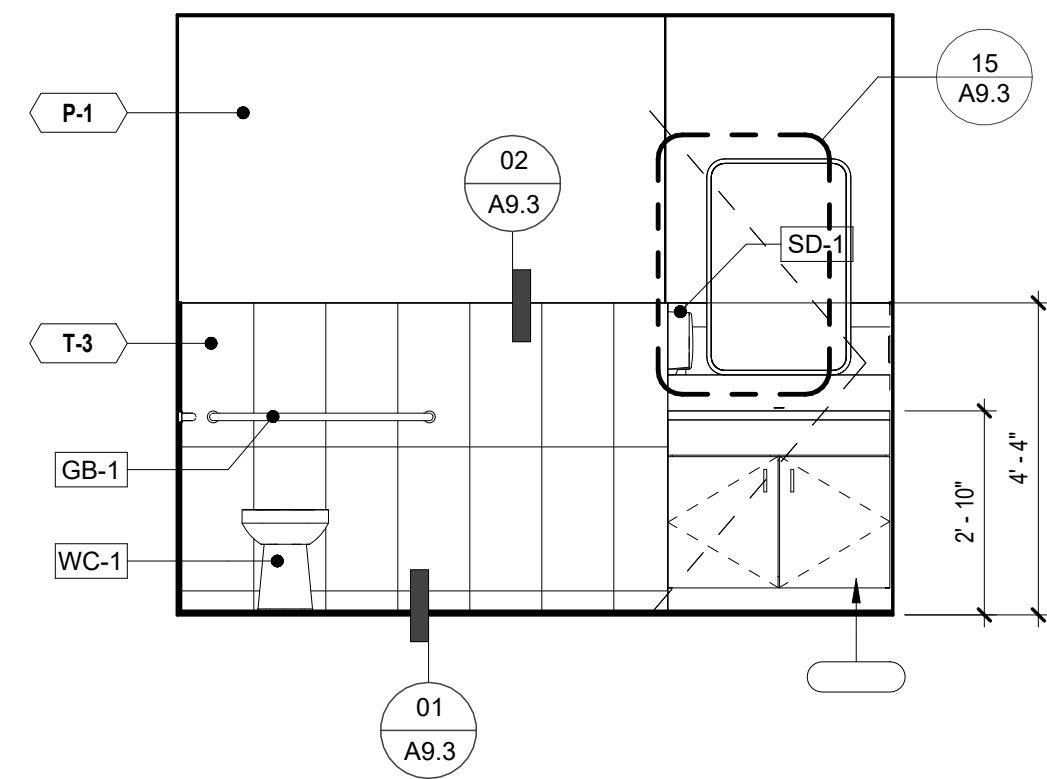
108C - SOUTH
3/8" = 1'-0" | 23



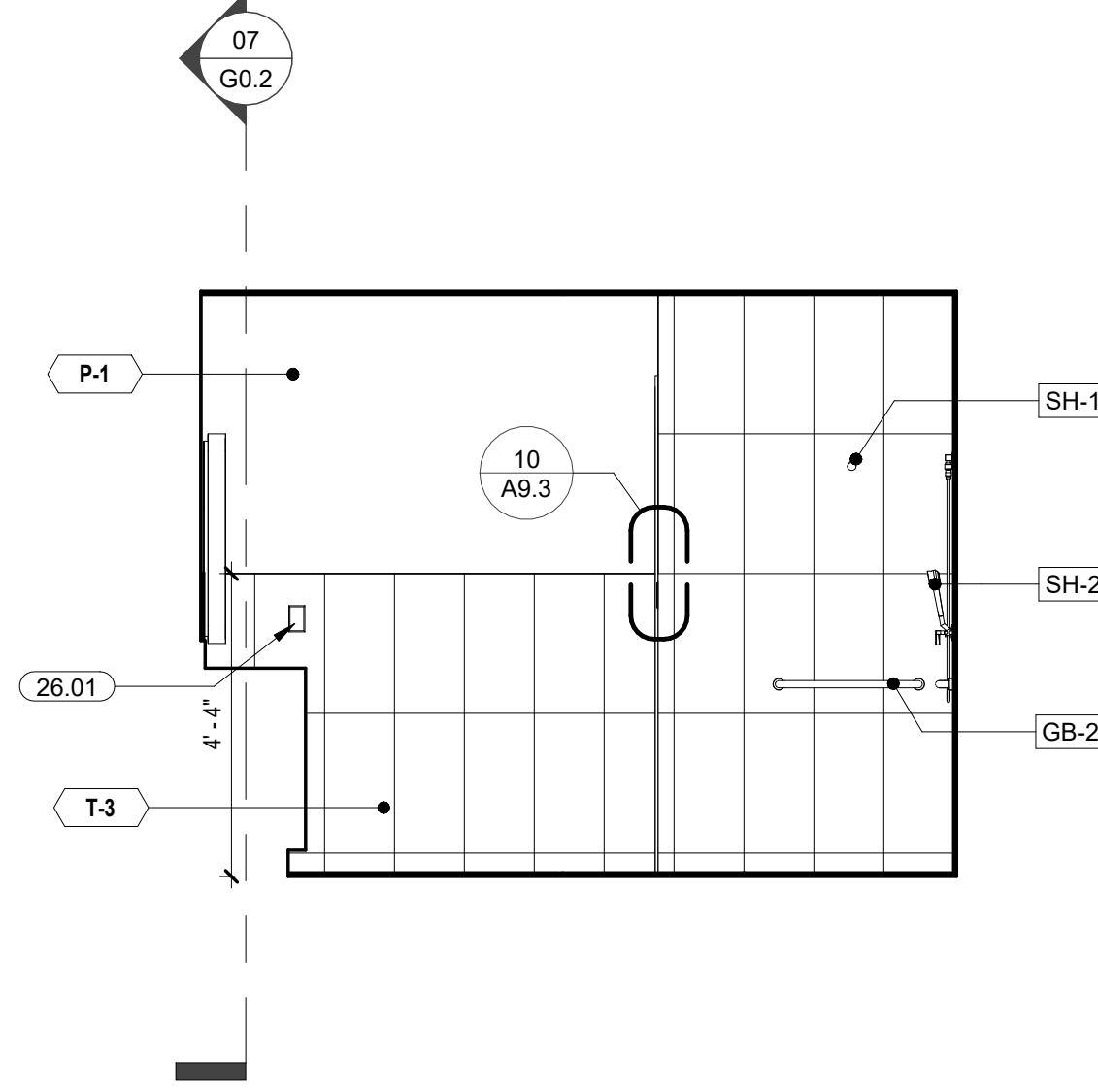
108C - WEST
3/8" = 1'-0" | 19



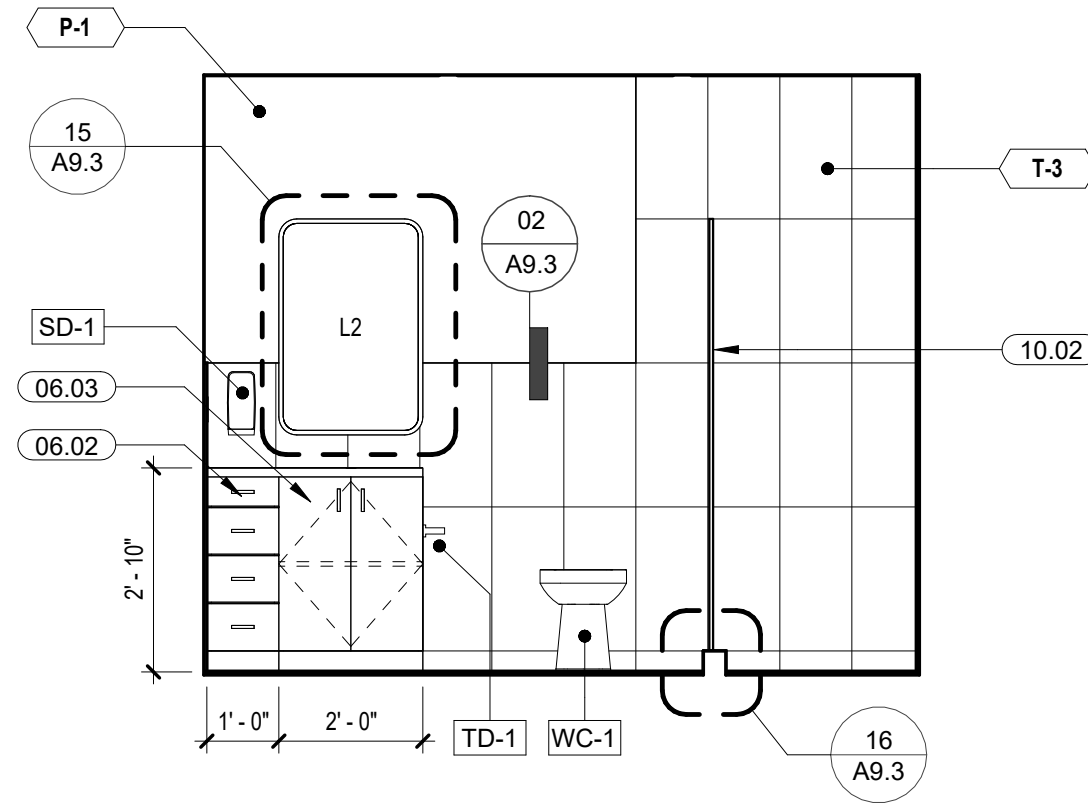
108C - WEST SINK
3/8" = 1'-0" | 15



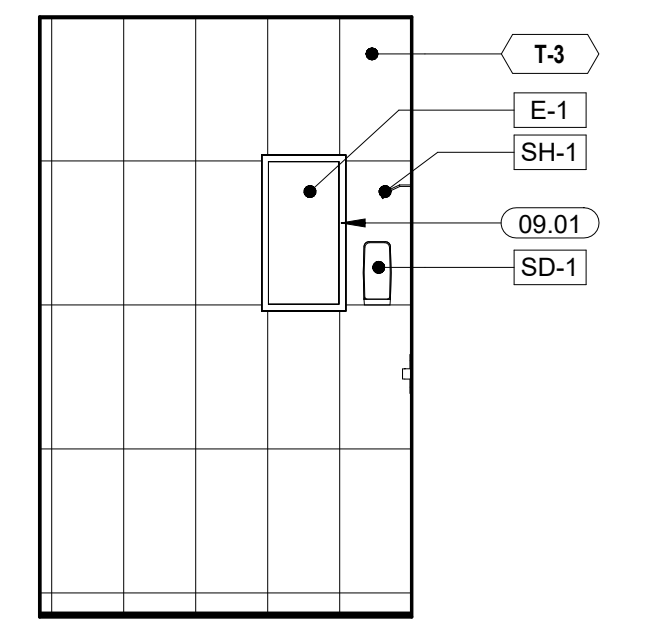
108C - NORTH
3/8" = 1'-0" | 11



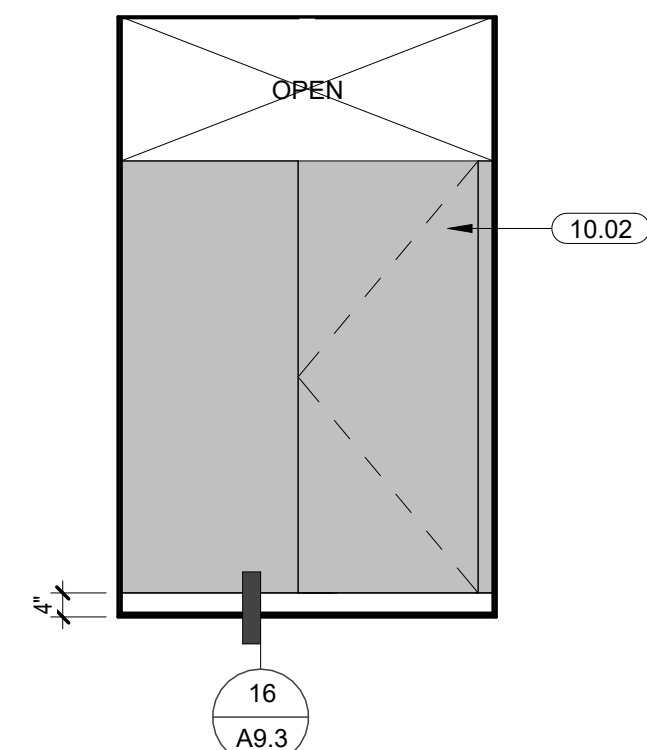
108C - EAST
3/8" = 1'-0" | 07



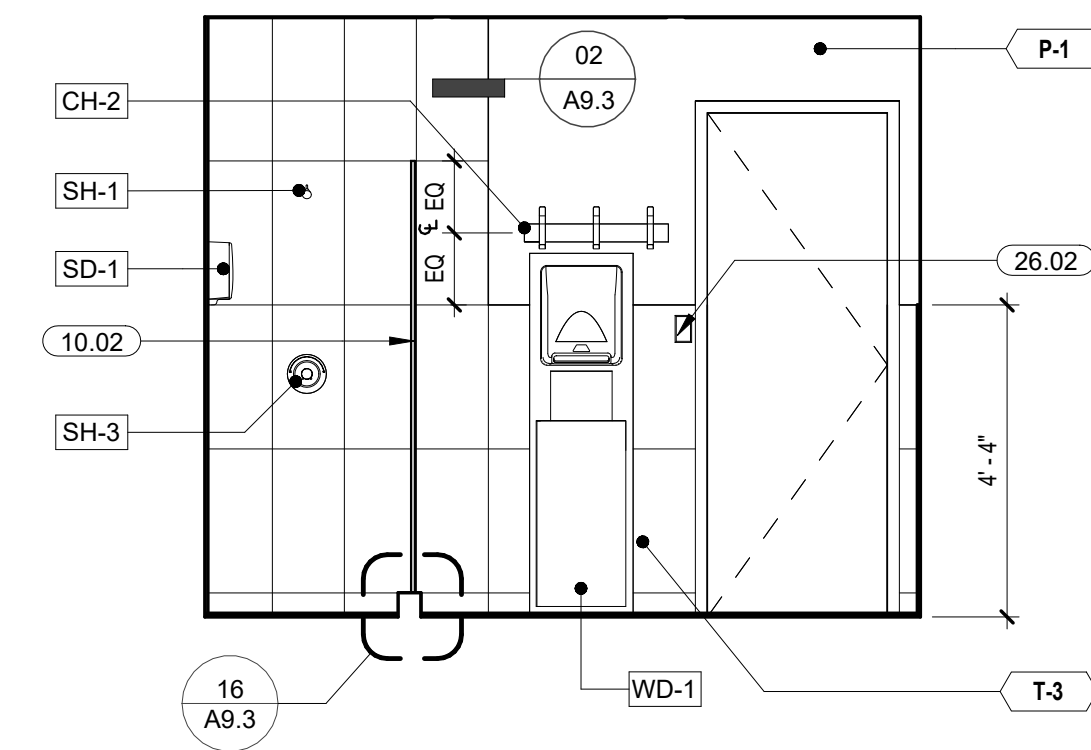
108B - SOUTH
3/8" = 1'-0" | 22



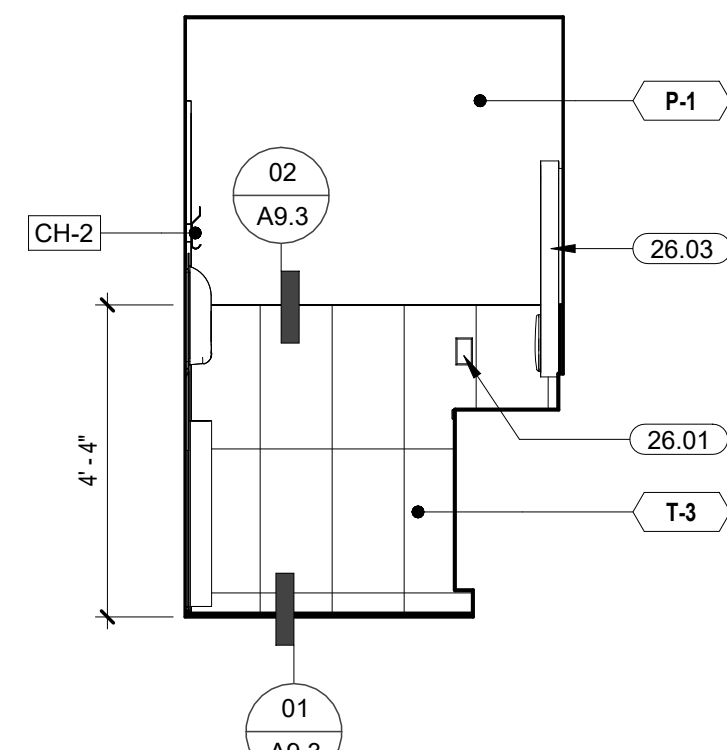
108B - W SHOWER
3/8" = 1'-0" | 18



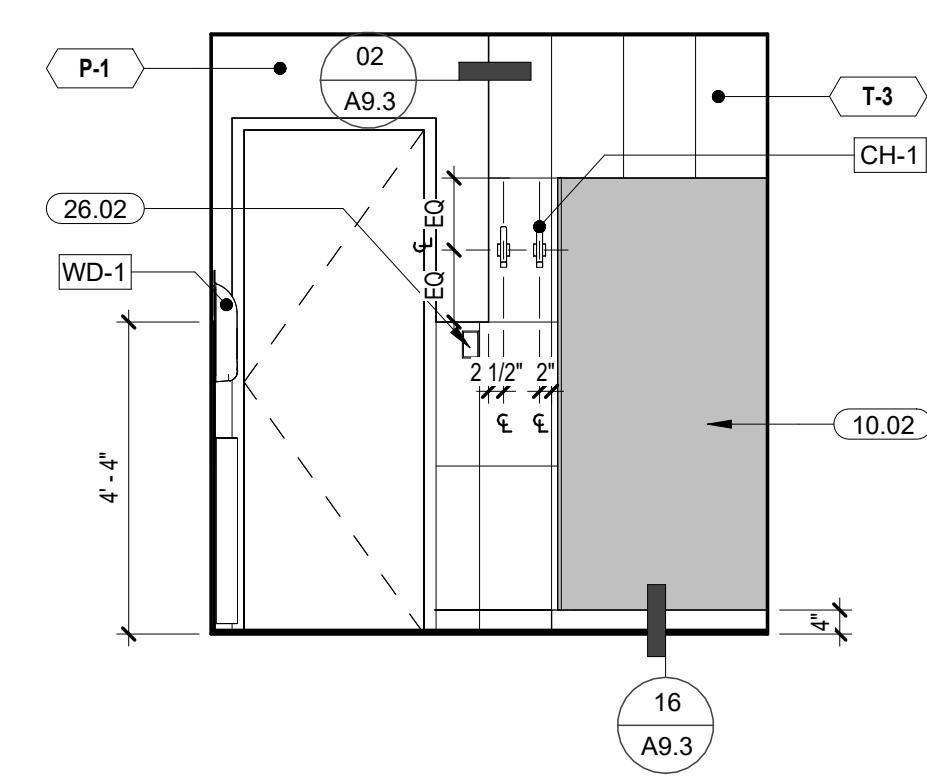
108B - WEST
3/8" = 1'-0" | 14



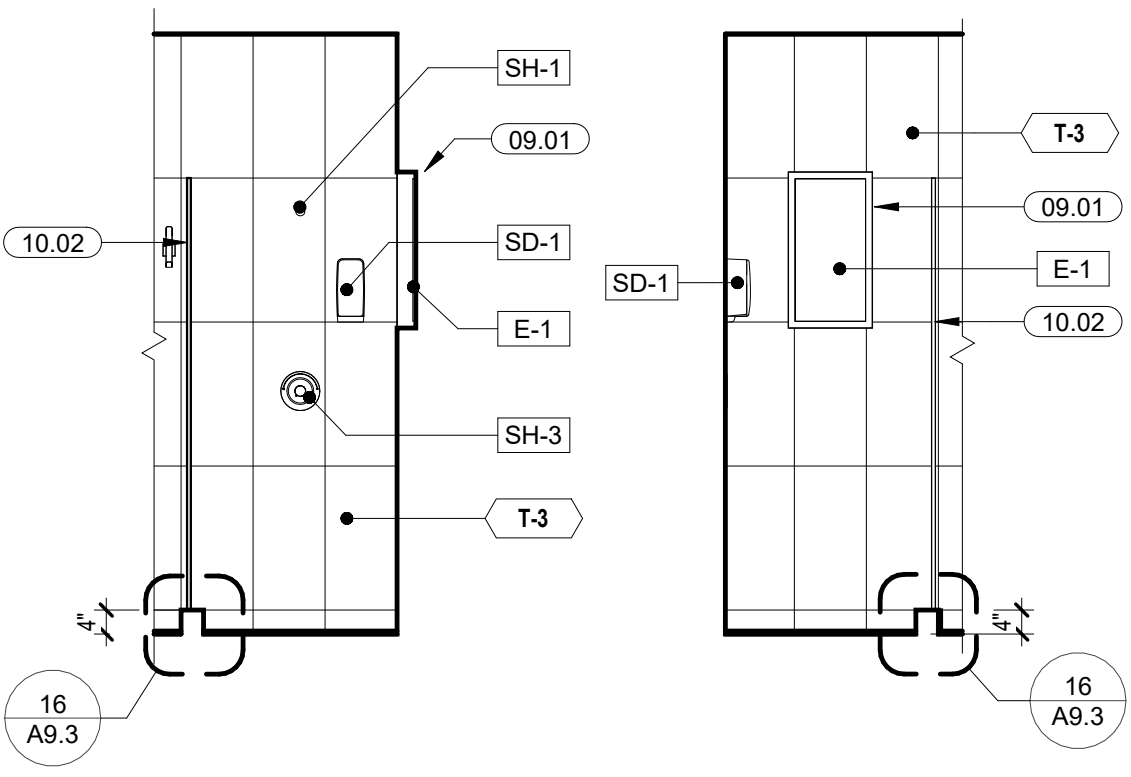
108B - NORTH
3/8" = 1'-0" | 10



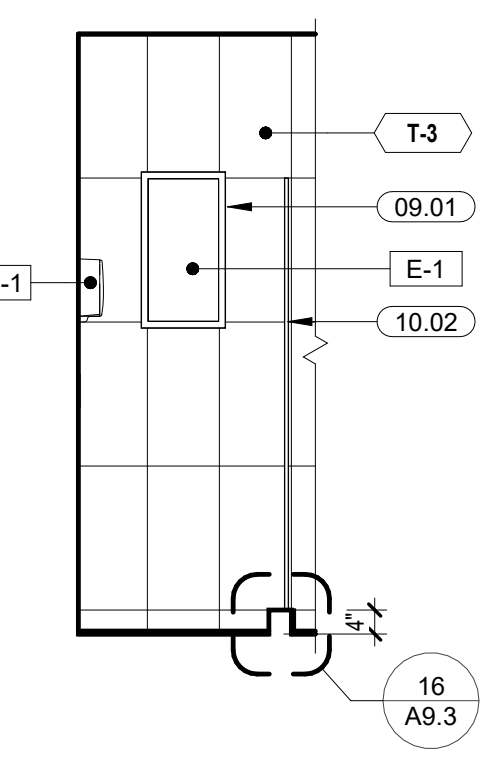
108B - EAST
3/8" = 1'-0" | 06



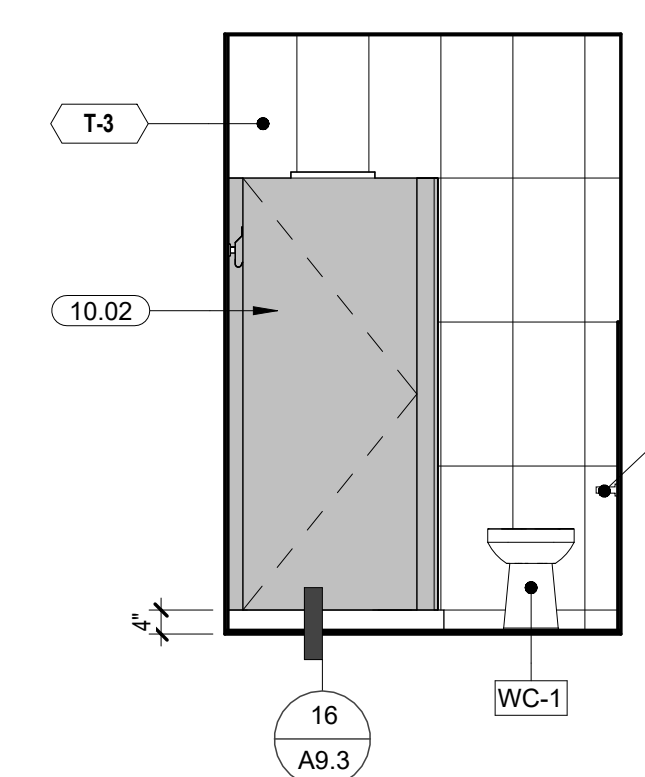
108A - SOUTH
3/8" = 1'-0" | 25



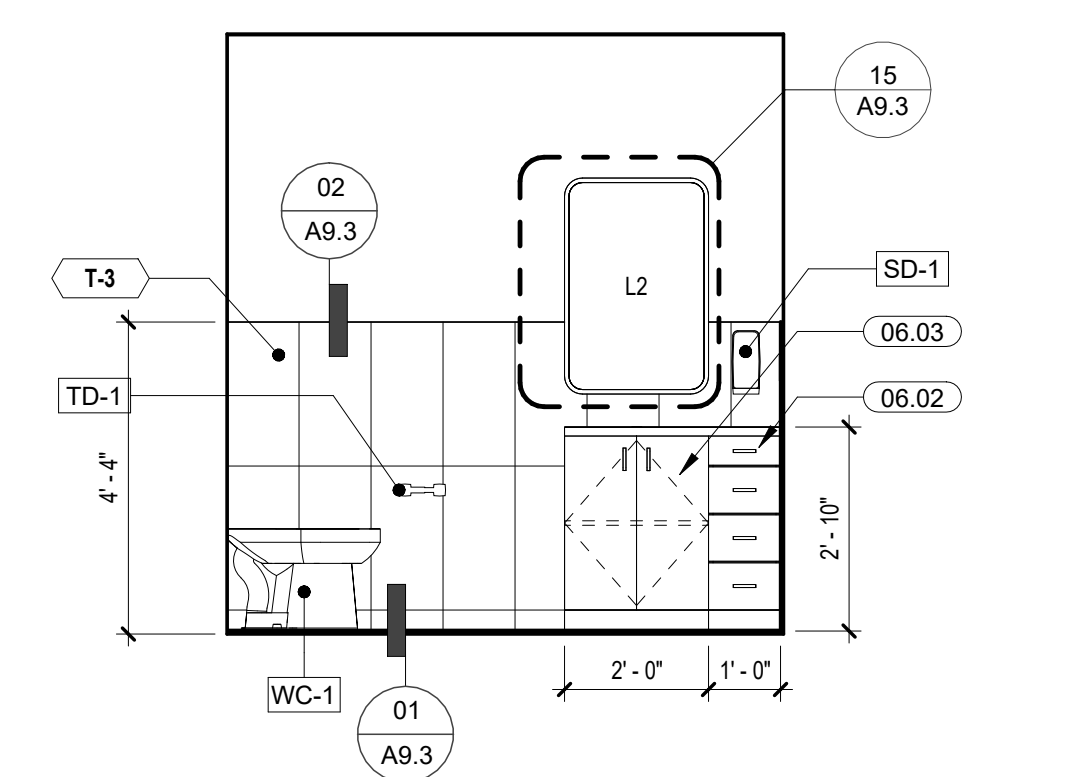
108A - SHOWER
3/8" = 1'-0" | 21



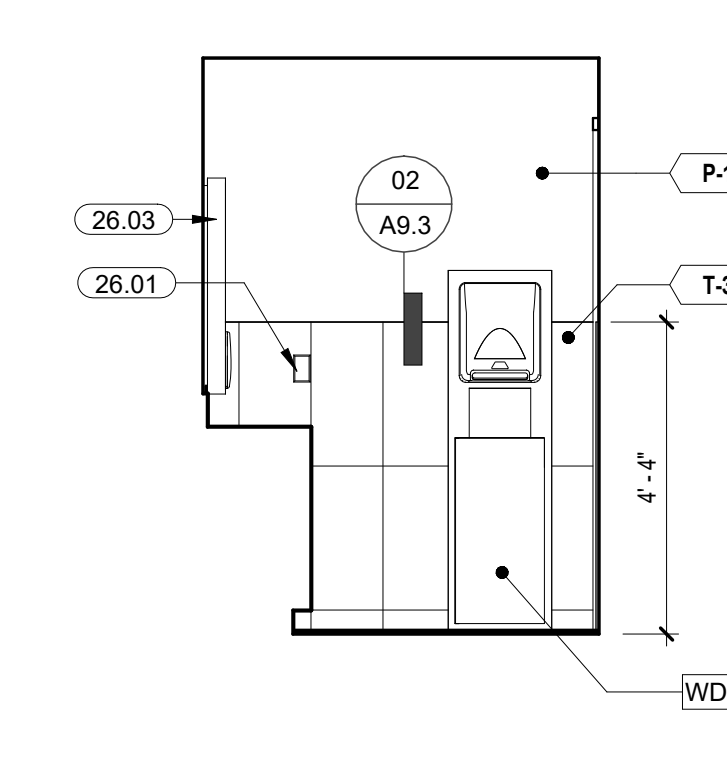
108A - SHOWER
3/8" = 1'-0" | 17



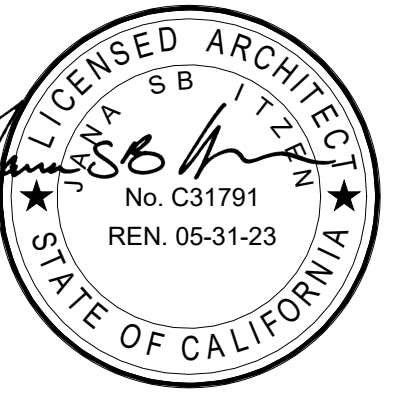
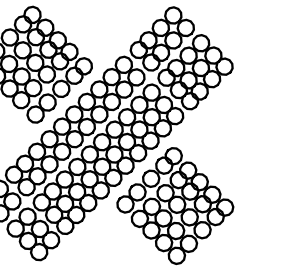
108A - WEST
3/8" = 1'-0" | 13



108A - NORTH
3/8" = 1'-0" | 09

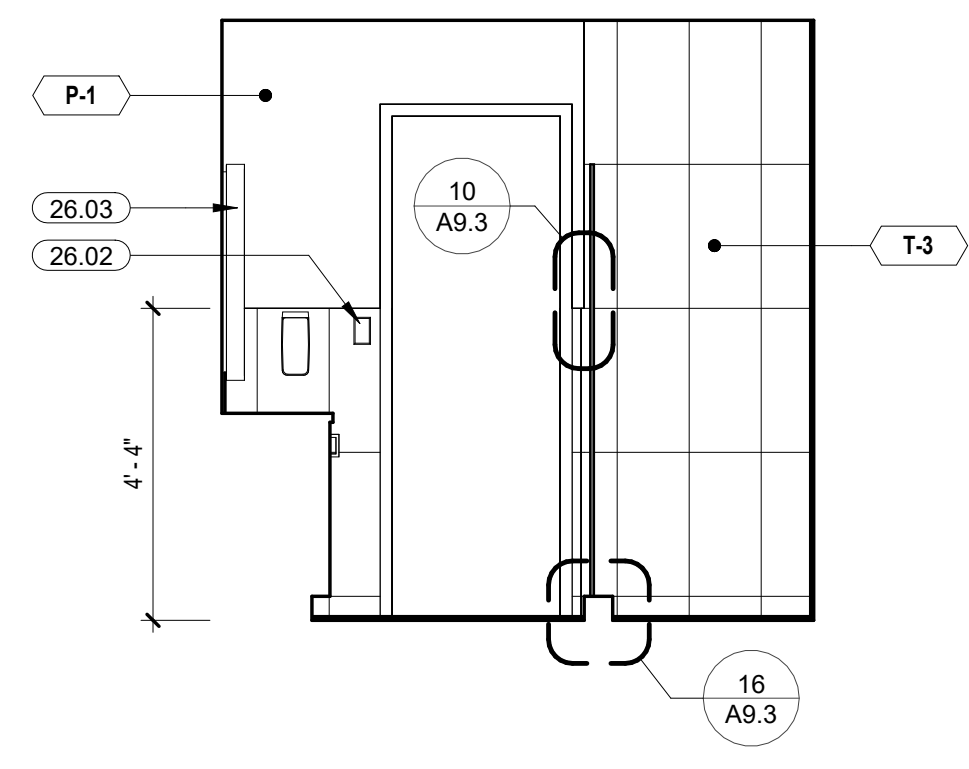


108A - EAST
3/8" = 1'-0" | 05

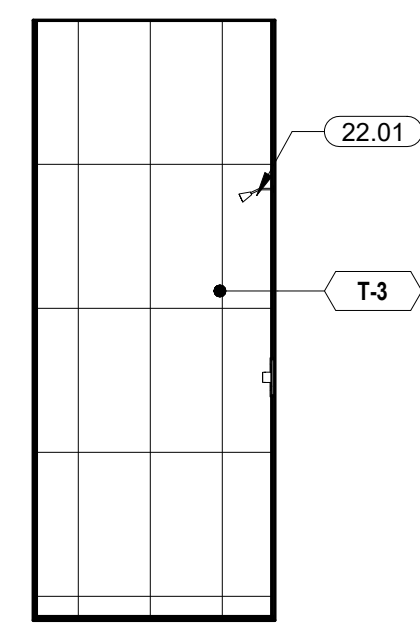


LEGEND

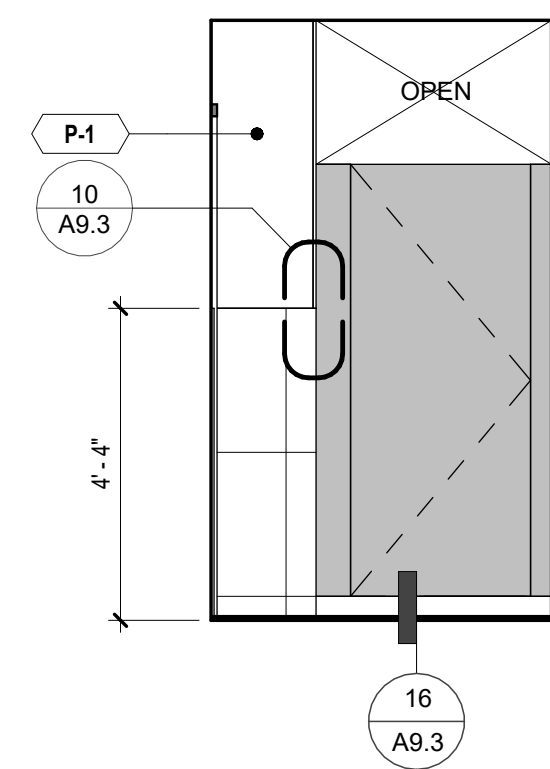
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- 11 EQUIPMENT TAG



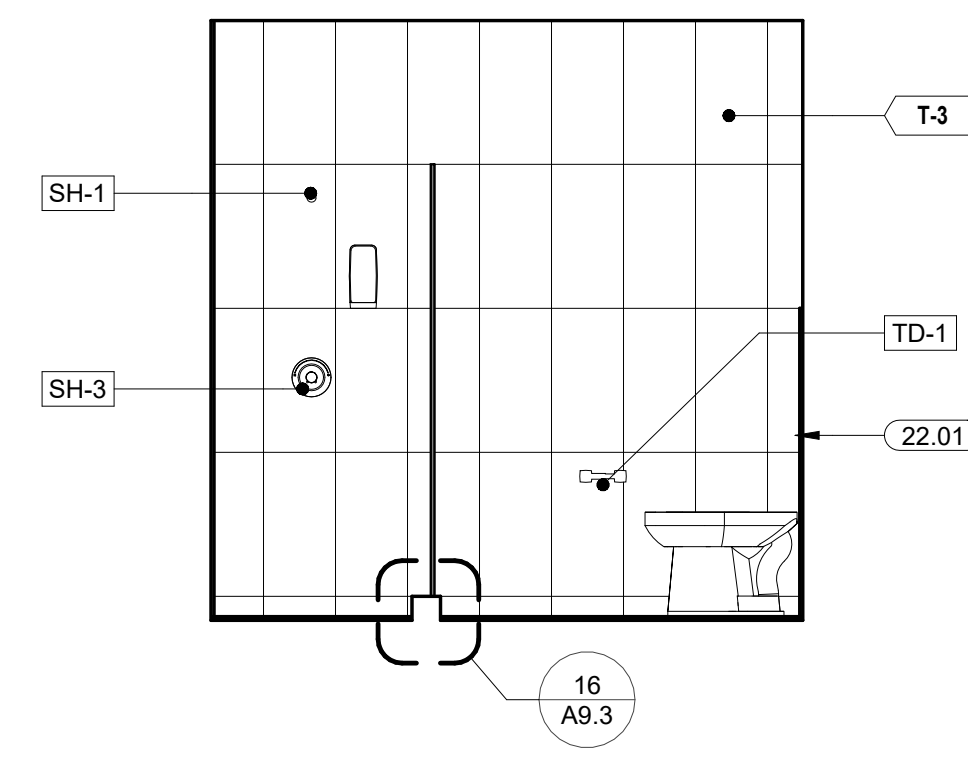
137 - SOUTH | 24
3/8" = 1'-0"



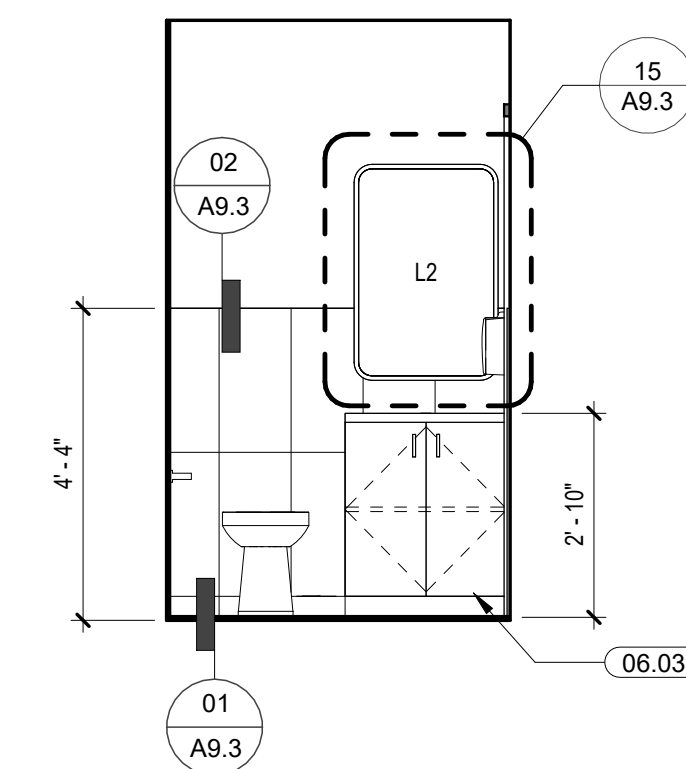
137 - SHOWER W | 20
3/8" = 1'-0"



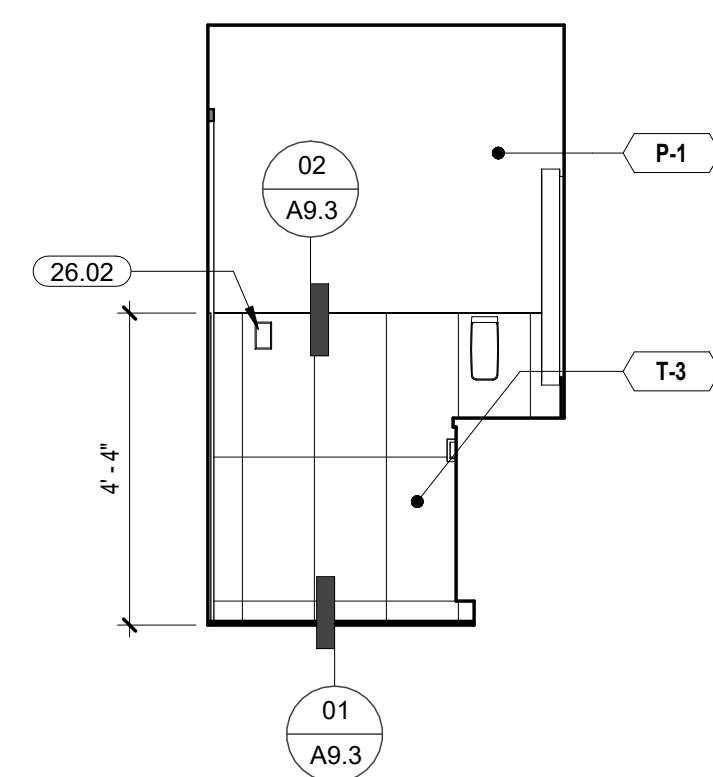
137 - WEST | 16
3/8" = 1'-0"



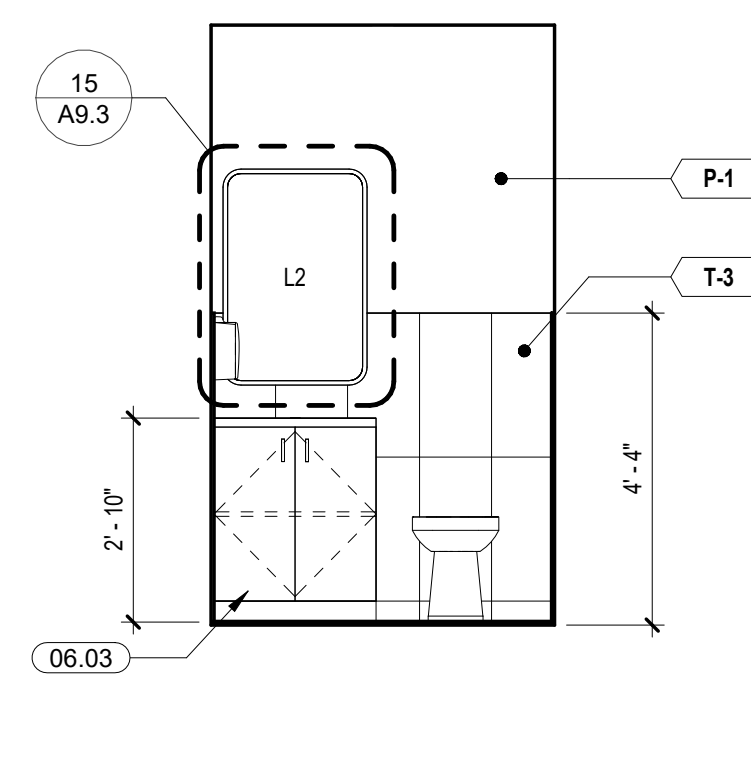
137 - NORTH | 12
3/8" = 1'-0"



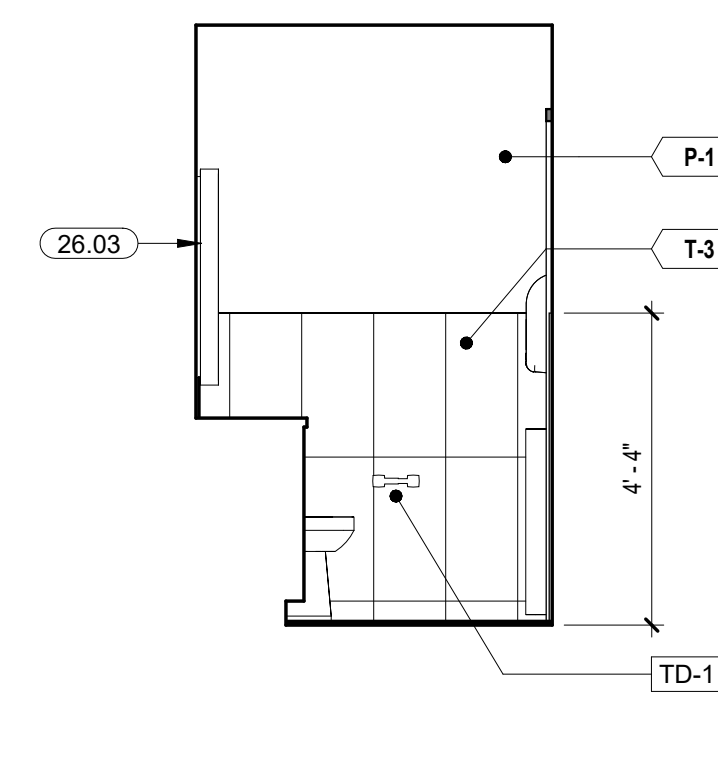
137 - EAST | 08
3/8" = 1'-0"



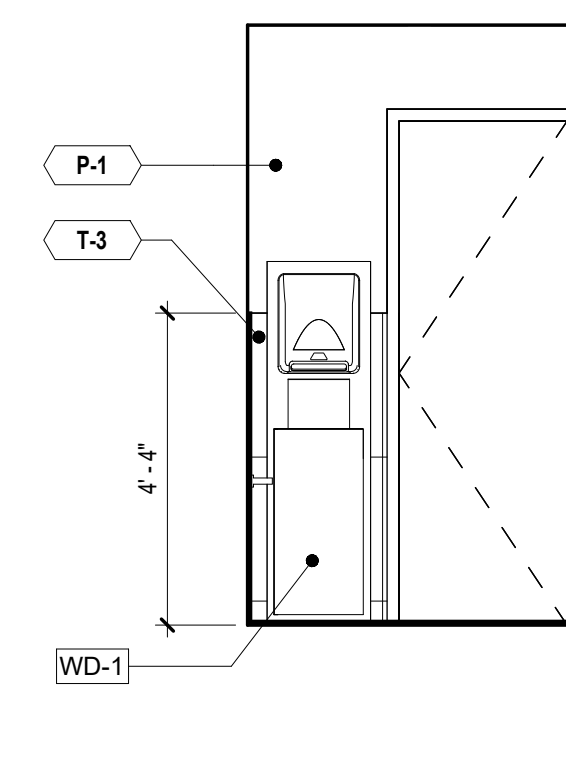
136 - SOUTH | 19
3/8" = 1'-0"



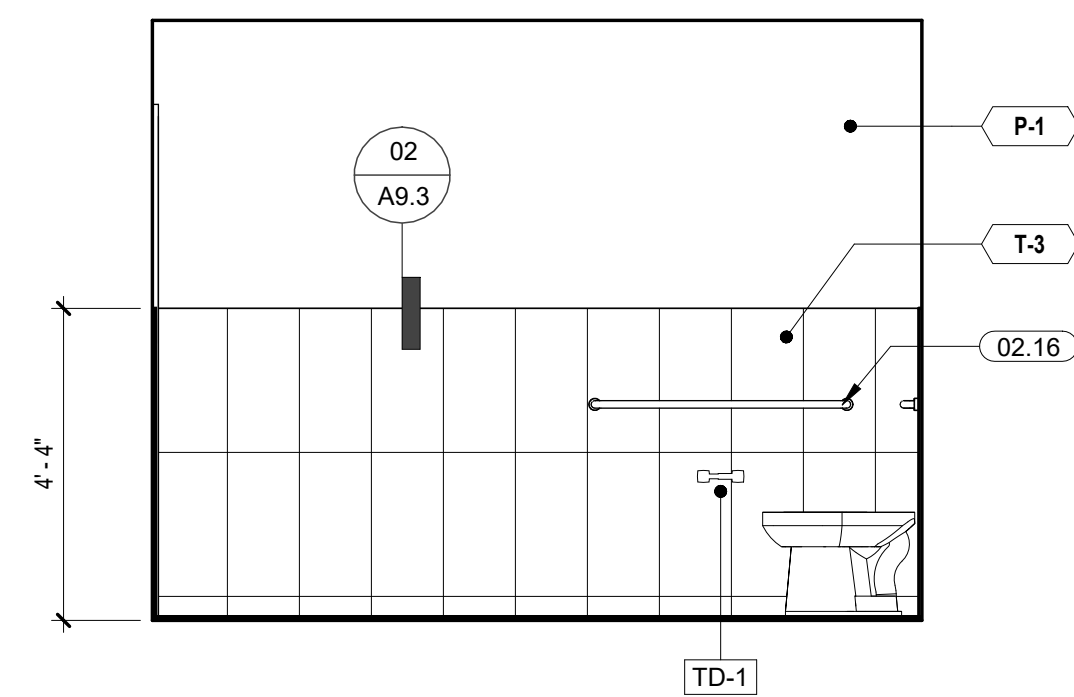
136 - WEST | 15
3/8" = 1'-0"



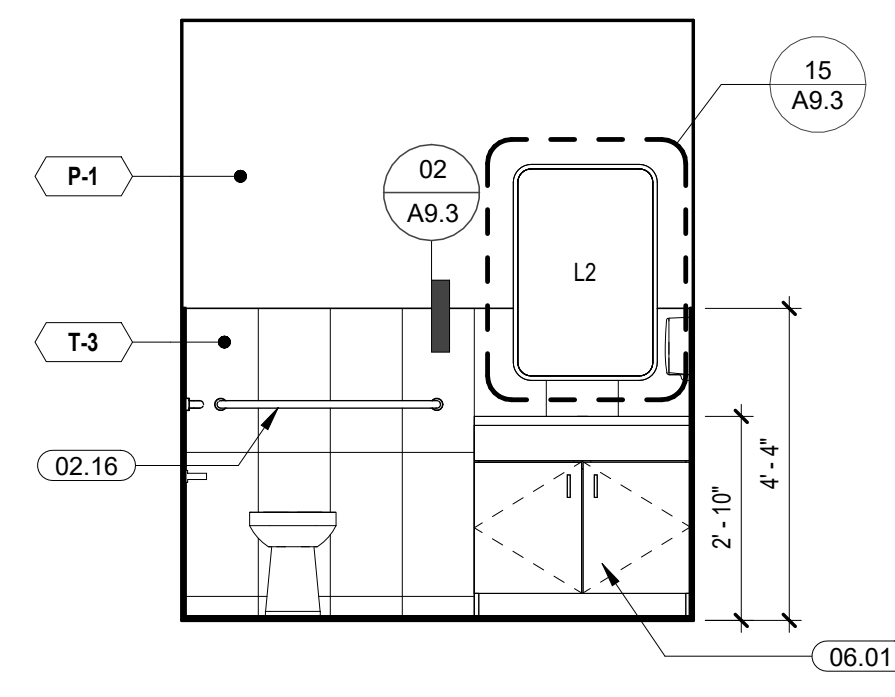
136 - NORTH | 11
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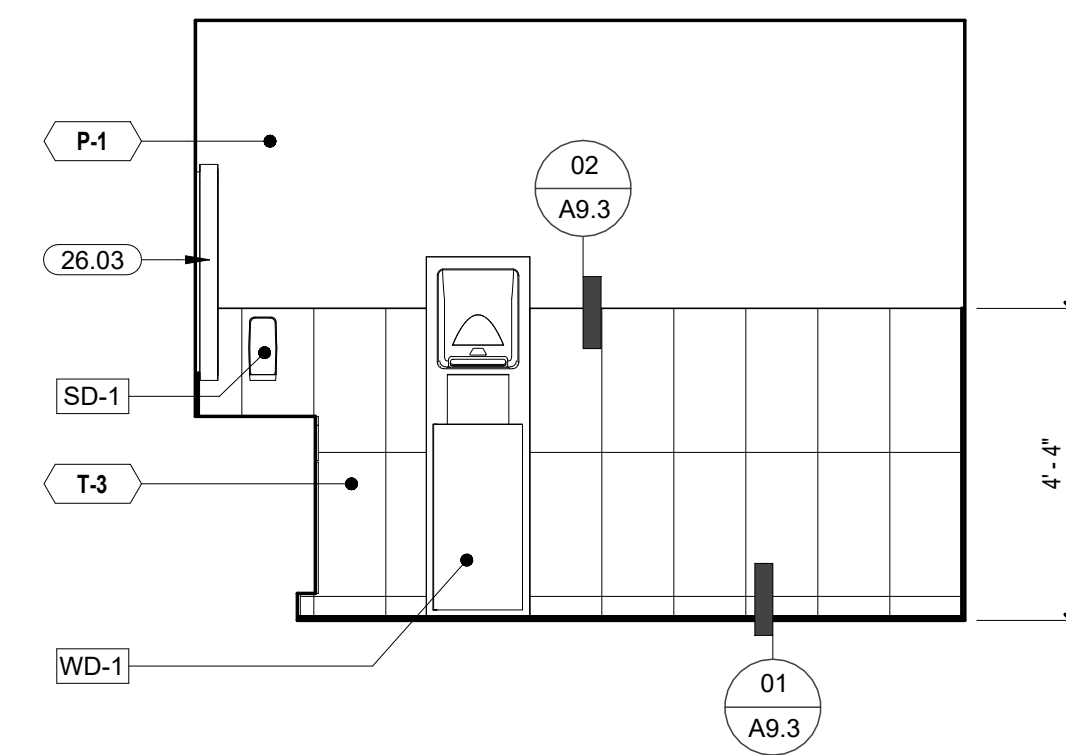
136 - EAST | 07
3/8" = 1'-0"



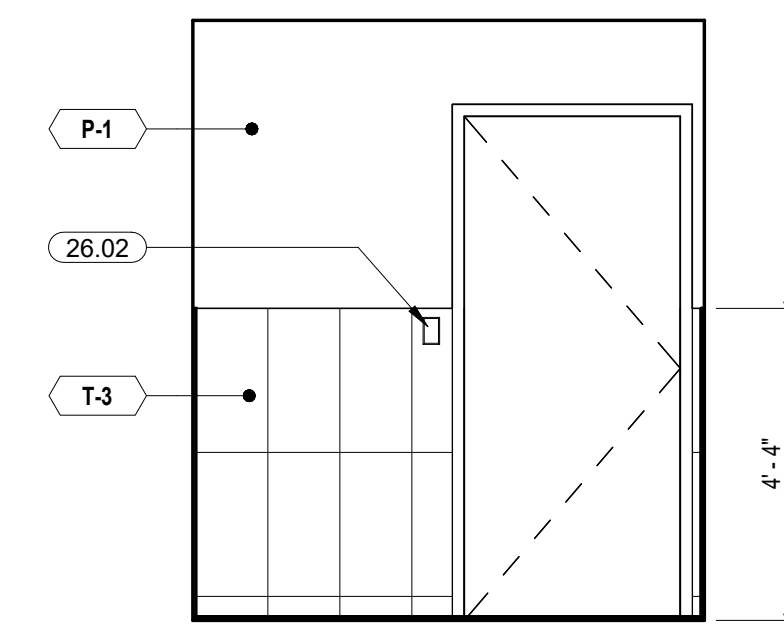
134 - SOUTH | 18
3/8" = 1'-0"



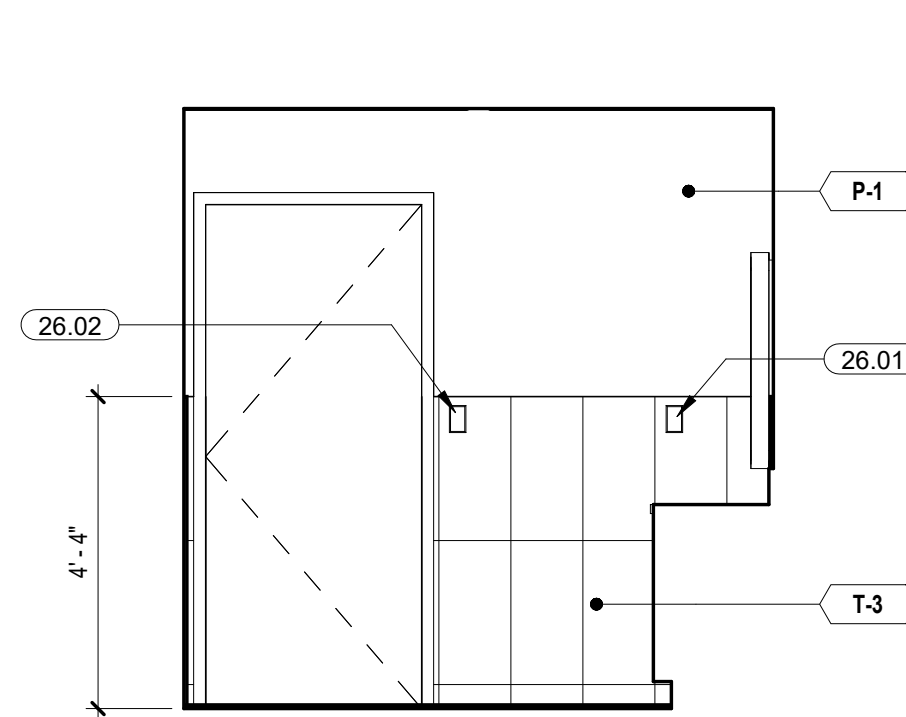
134 - WEST | 14
3/8" = 1'-0"



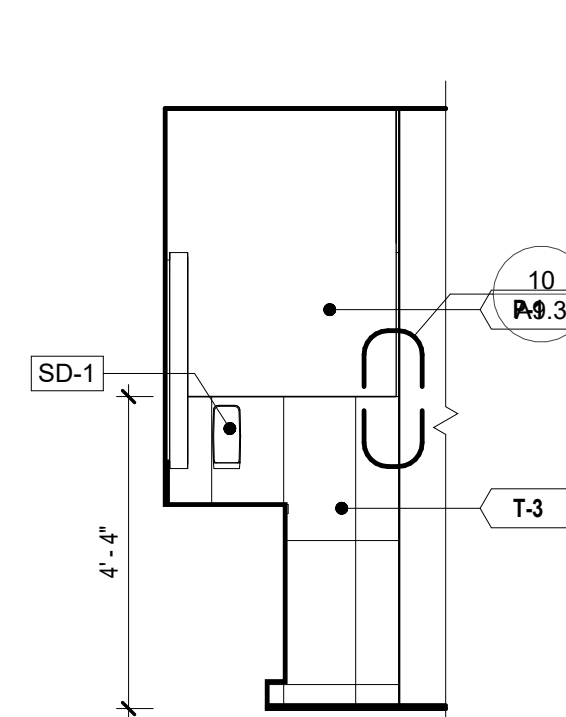
134 - NORTH | 10
3/8" = 1'-0"



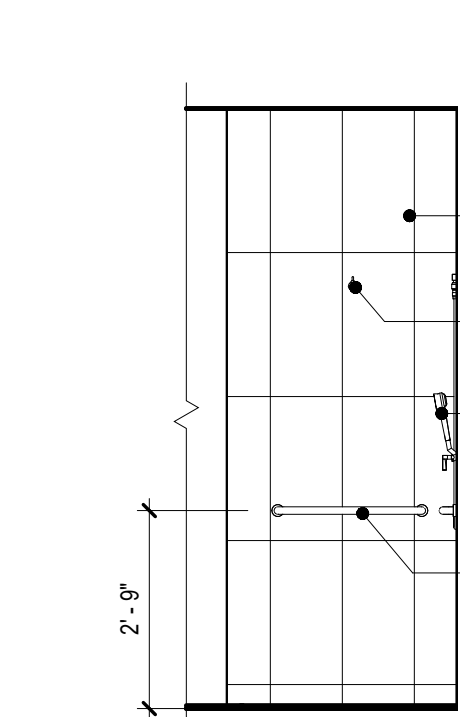
134 - EAST | 06
3/8" = 1'-0"



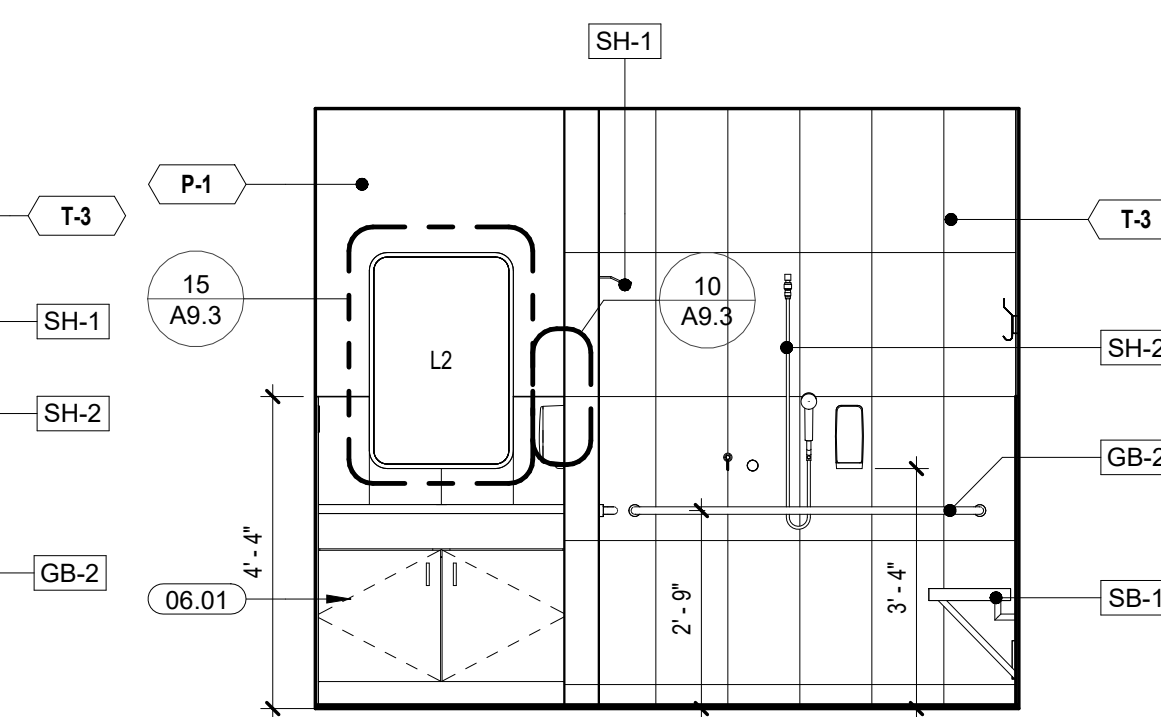
129 - SOUTH | 25
3/8" = 1'-0"



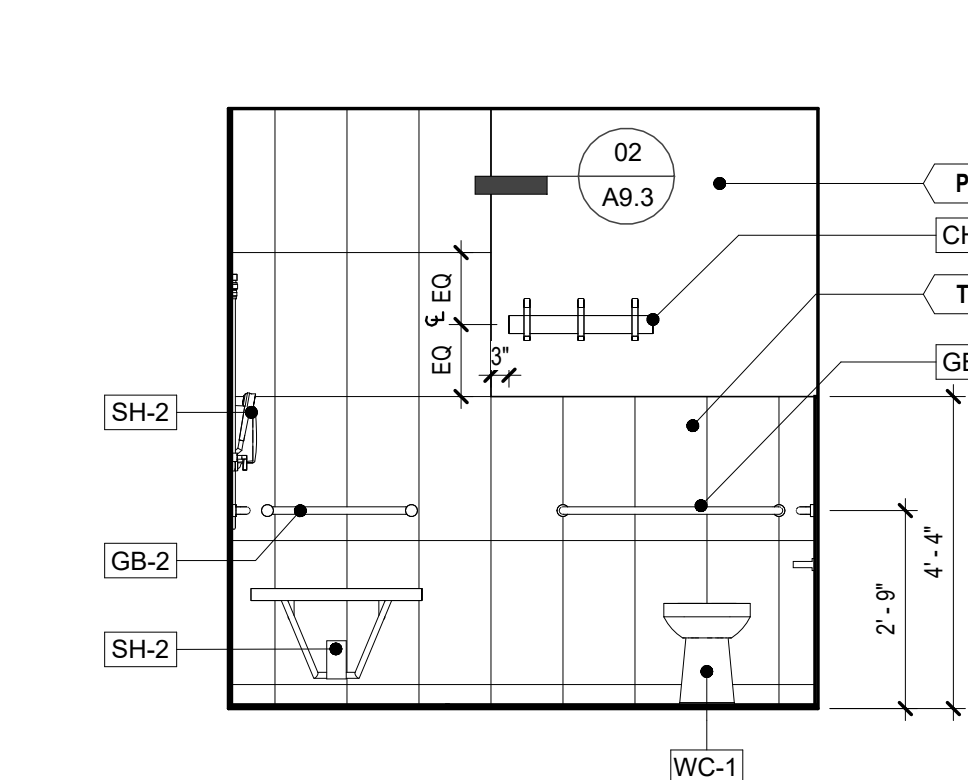
129 - SINK N | 21
3/8" = 1'-0"



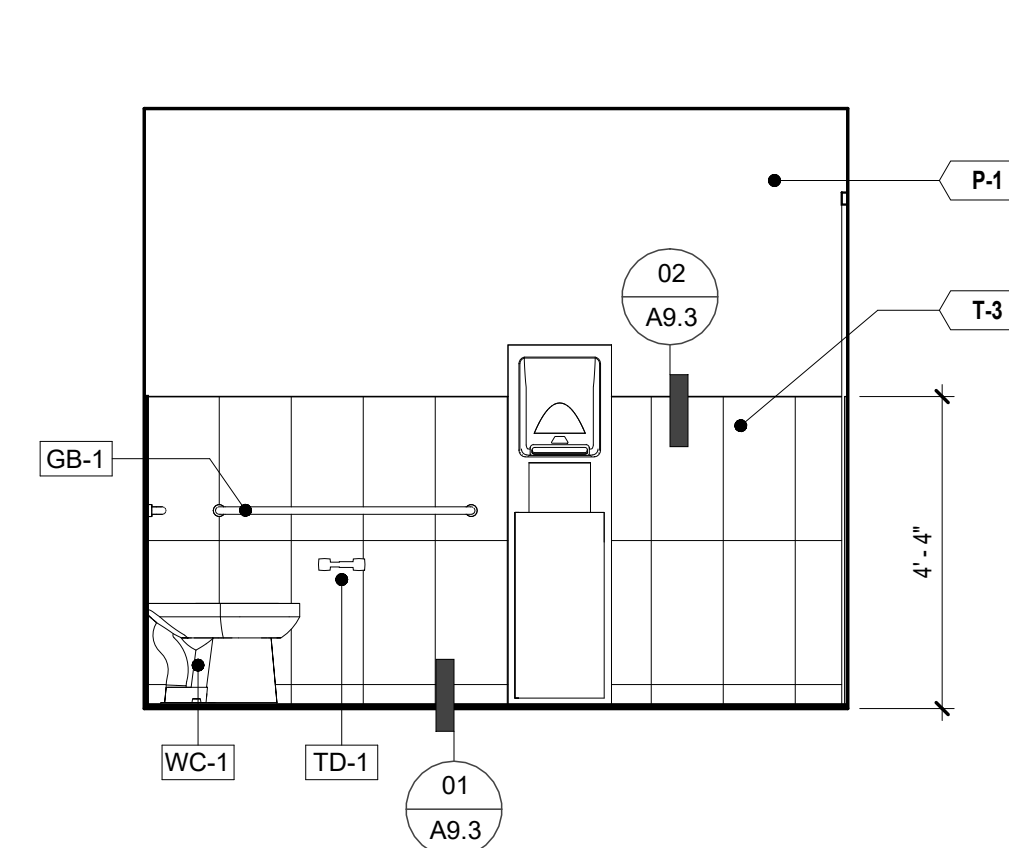
129 - SHOWER S | 17
3/8" = 1'-0"



129 - WEST | 13
3/8" = 1'-0"



129 - NORTH | 09
3/8" = 1'-0"



129 - EAST | 05
3/8" = 1'-0"

GENERAL NOTES

1. DIMENSIONS ARE TO FACE OF FINISH, U.N.O.
2. ALL COMBUSTIBLE MATERIALS IN CEILING TO BE WRAPPED WITH TYPE "X" GYPSUM BOARD, AND/OR BE FIRE RATED PER APPLICABLE CODES.
3. ALL ACCESS PANELS IN GYPSUM BOARD CEILINGS TO BE FLUSH PAINTED METAL ACCESS DOORS. CONFIRM LAYOUT/LOCATION WITH ARCHITECT PRIOR TO INSTALLATION.
4. REFER TO ELECTRICAL DRAWING FOR ALL FIXTURE CIRCUITING AND ADDITIONAL INFORMATION.
5. ALL FIXTURE CENTERLINES TO ALIGN WHERE APPLICABLE
6. U.N.O. ALL VERTICAL SURFACES, SOFFITS, CEILINGS TO BE PAINTED P-1
7. ALIGN FLOOR AND WALL GROUT JOINTS
8. PROVIDE WATER RESISTANT COATING ON CASEWORK TOE KICKS. SEAL TOE KICK TO TILE WITH WATER PROOF SEALANT
9. REFER TO SHEET A9.2 FOR ALL MOUNTING HEIGHT REQUIREMENTS

SCHEDULES

SEE SHEET A0.1 FOR FINISH SCHEDULE

KEYNOTES

02.16	(E) GRAB BAR TO REMAIN
06.01	CDS 155, SIZE PER PLANE/ELEVATION. PROVIDE POCKET DOOR SLIDER HARDWARE. FIX TOE KICK TO DOOR AND MAINTAIN 32" CLEAR
06.03	CDS 102, SIZE PER PLANE/ELEVATION
22.01	(E) PLUMBING FIXTURE TO REMAIN
26.01	GFCI OUTLET, REFER TO ELECTRICAL DRAWINGS
26.02	LIGHT SWITCH, REFER TO ELECTRICAL DRAWINGS
26.03	LIGHTED MIRROR, REFER TO LIGHT FIXTURE SCHEDULE

OCFA FIRE STATION #4

2 CALIFORNIA AVE
IRVINE, CA 92612

ORANGE COUNTY FIRE AUTHORITY

FOR PLAN
REVIEW ONLY

REV	DESCRIPTION	DATE

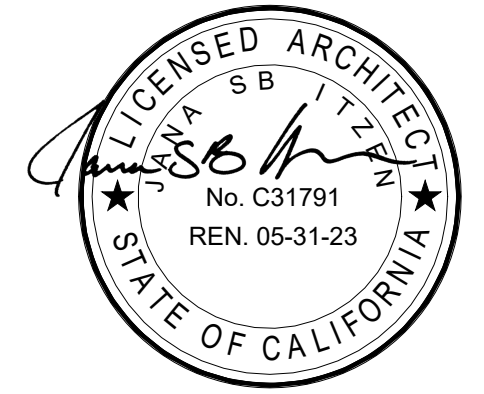
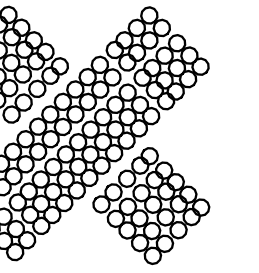
Job No. 22004
Date 04/03/23
Drawn/Checked by AL
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INTERIOR
ELEVATIONS

A5.2



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1	AGENCY RESUBMITTAL #1	11/18/22

Job No. 22004
Date 04/03/23
Drawn/Checked by AL
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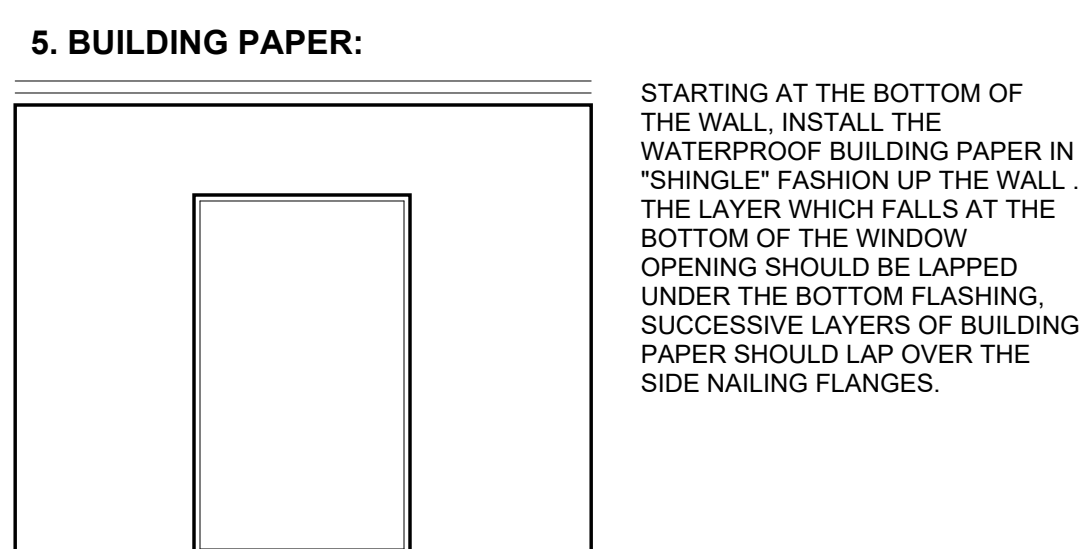
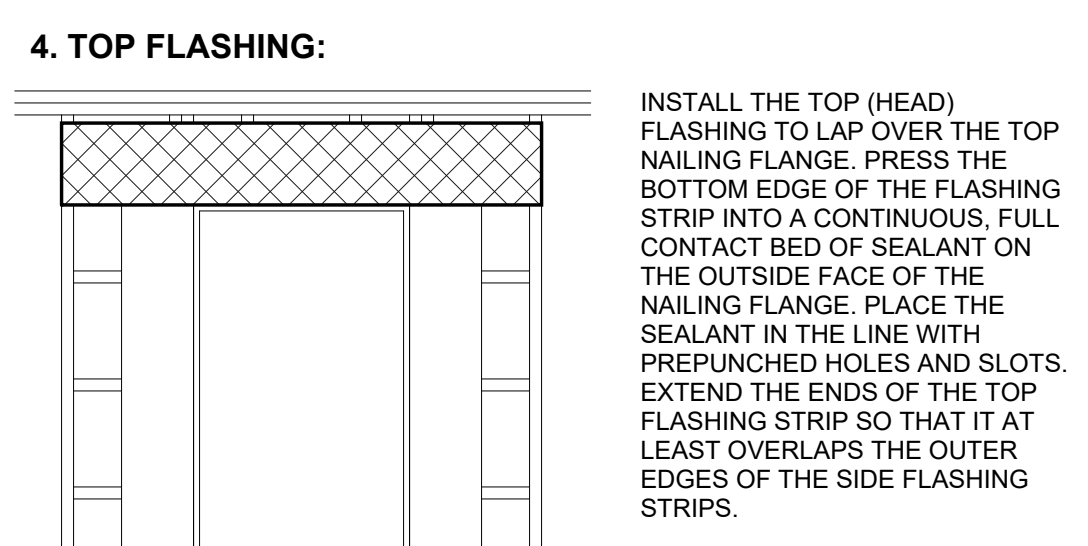
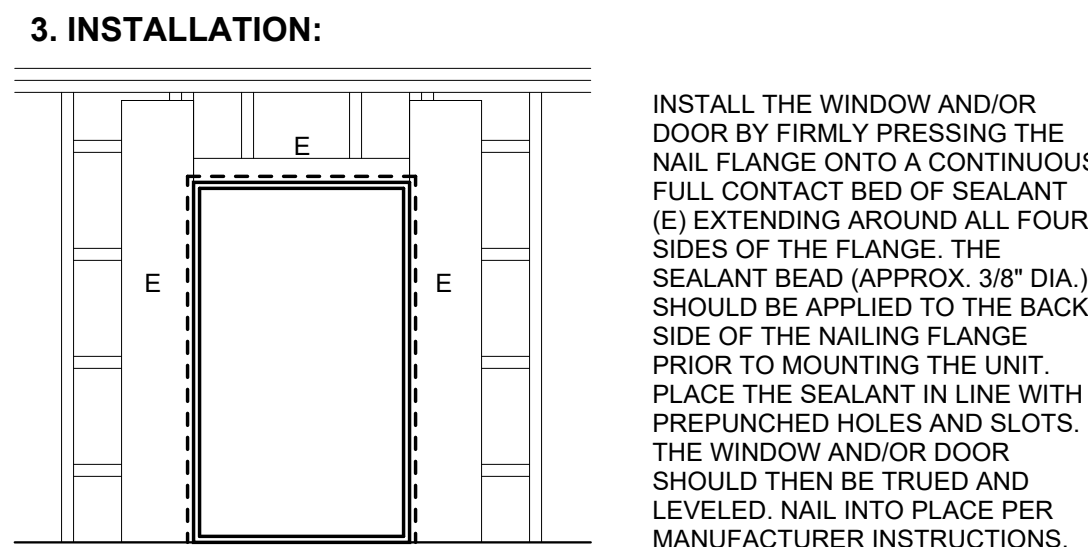
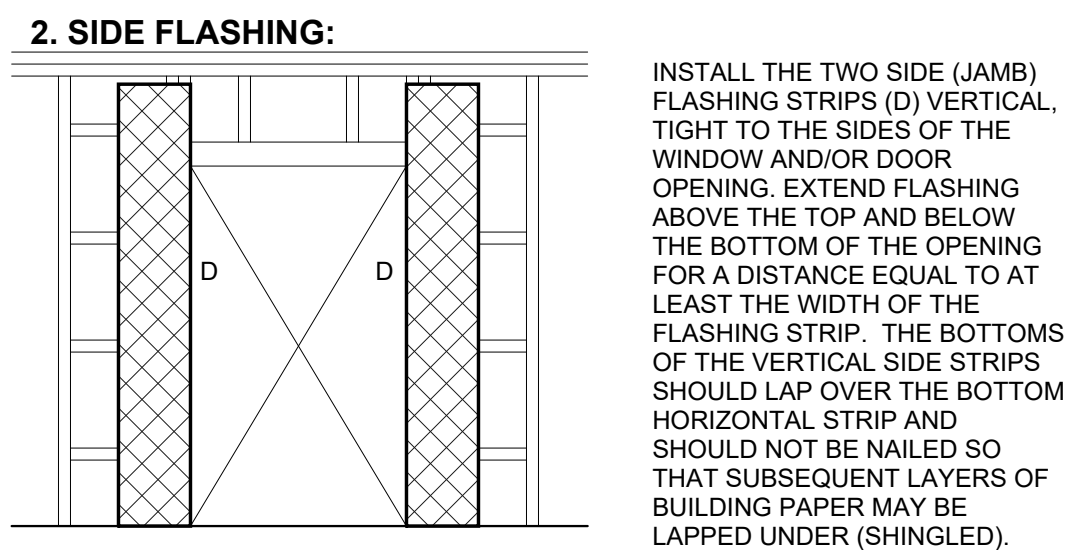
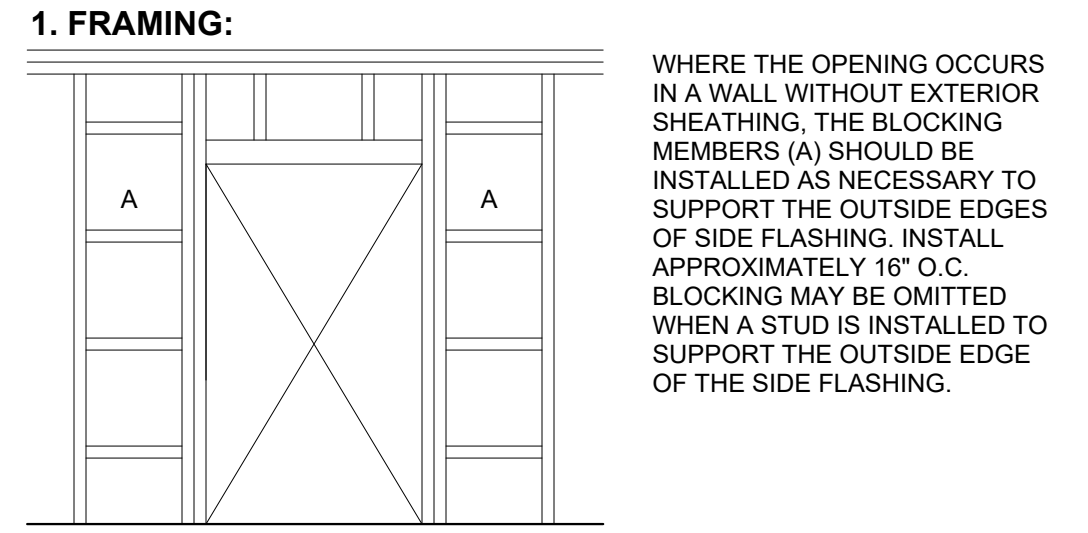
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EXTERIOR DETAILS

A8.1

ALL BUILDING PAPER TO BE HENRY HYDROTEX OR APPROVED EQUAL. 60 MINUTE GRADE D. ALL WINDOW AND/OR DOOR, SELF-ADHERING SHEET FLASHING AND SELF HEALING FLEXIBLE MEMBRANES TO BE CORRESPONDING HENRY PRODUCTS.

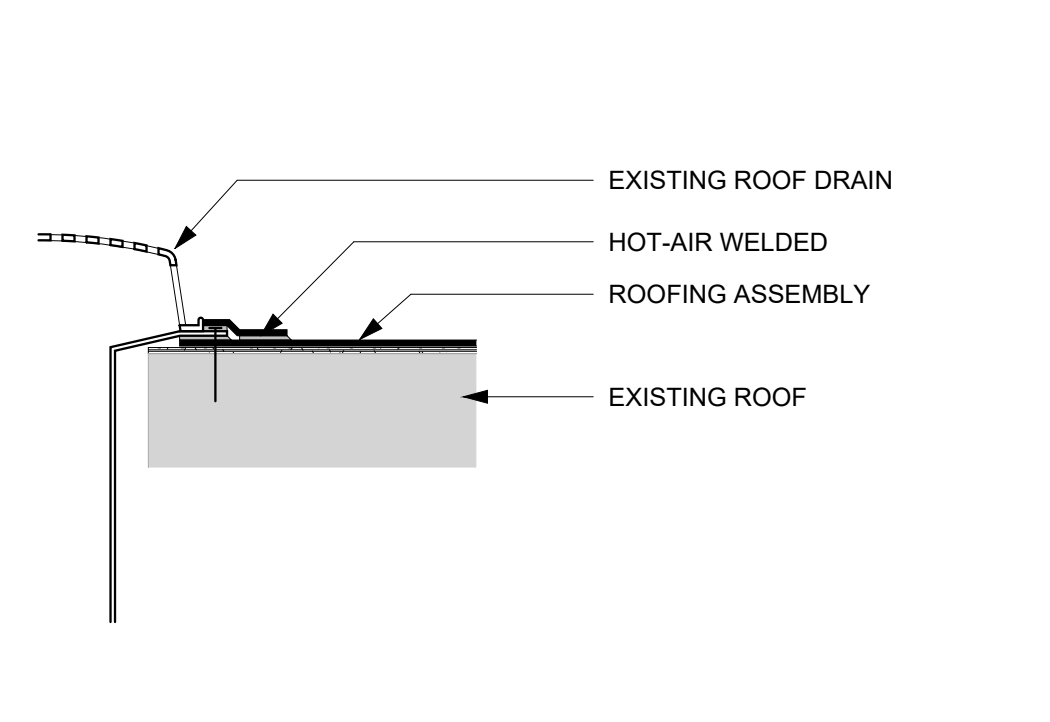


6. SEALANT:
MANUFACTURER'S RECOMMENDATION.

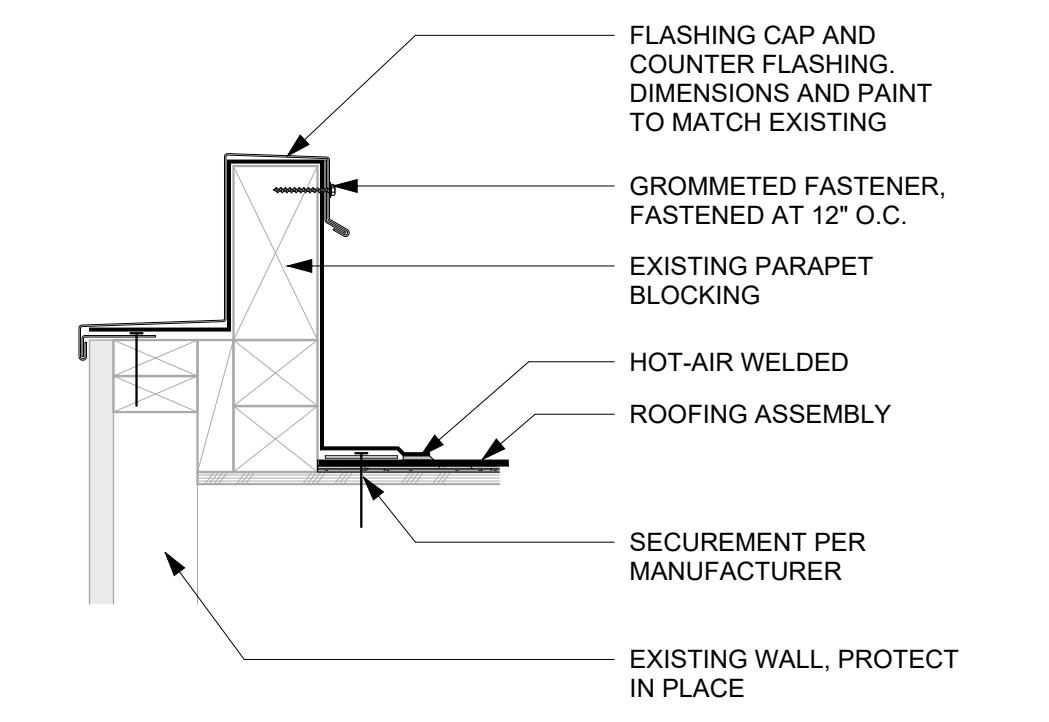
OPENING FLASHING | 21
3/8" = 1'-0"



OVERFLOW DRAIN | 12
1 1/2" = 1'-0"



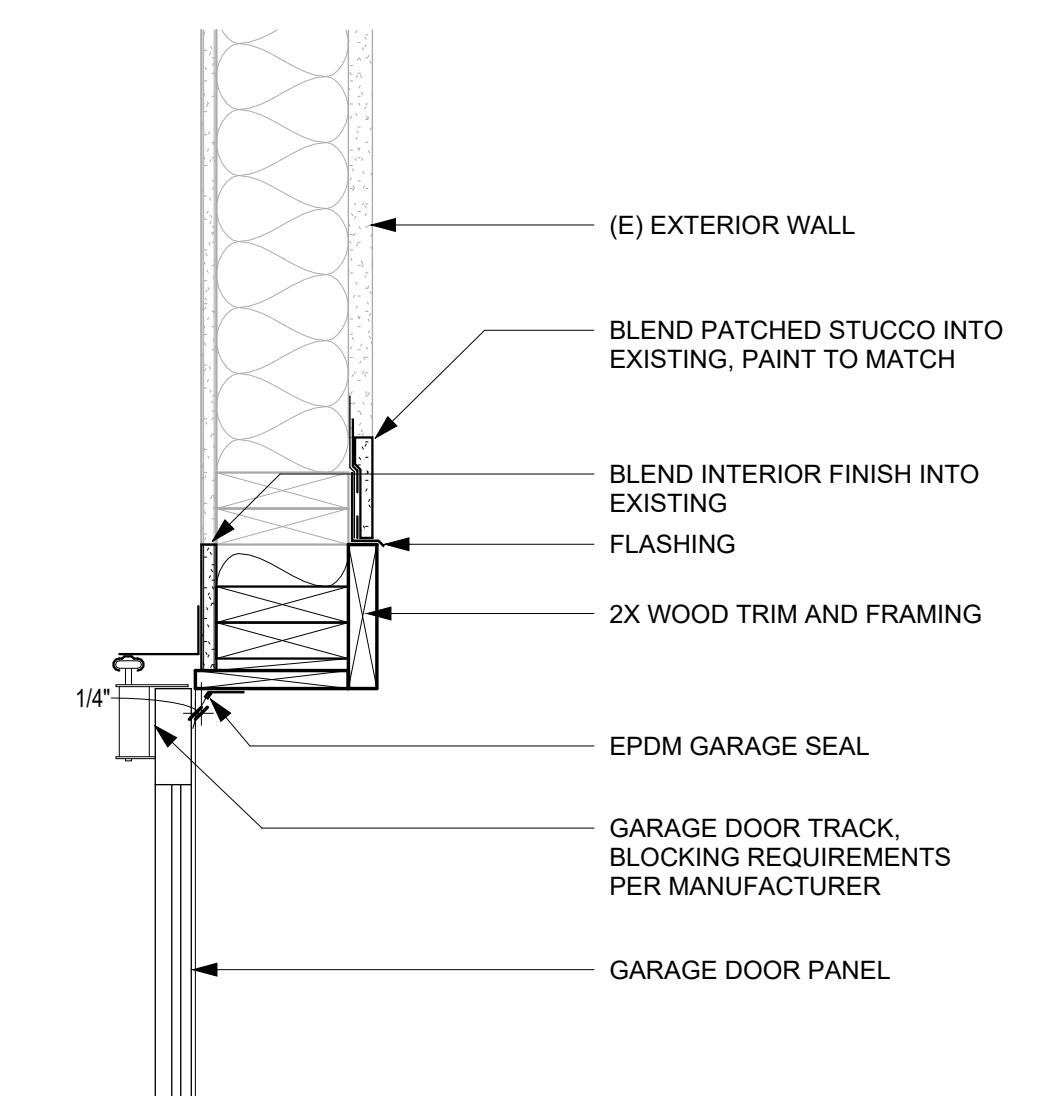
TYP ROOF DRAIN | 08
1 1/2" = 1'-0"



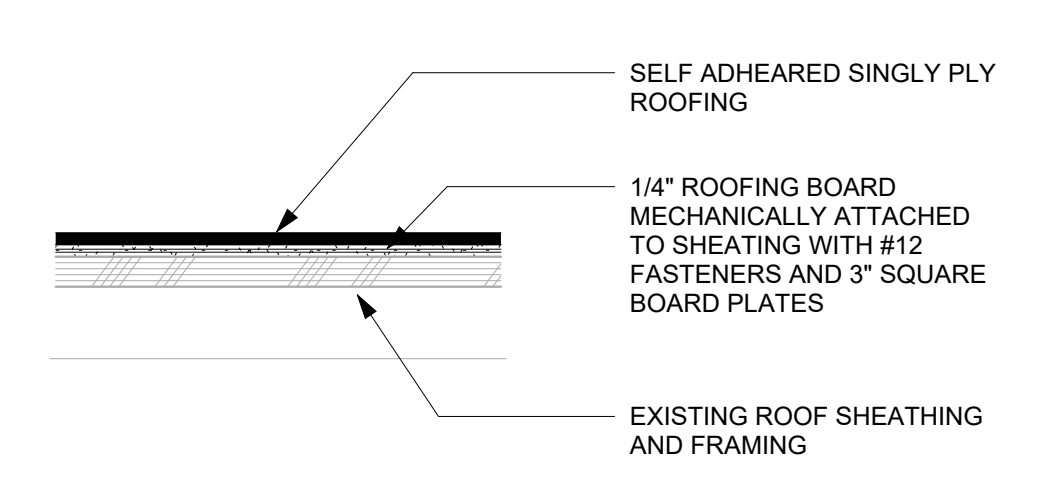
TYPICAL ROOFING TERMINATION @ PARAPET | 04
1 1/2" = 1'-0"



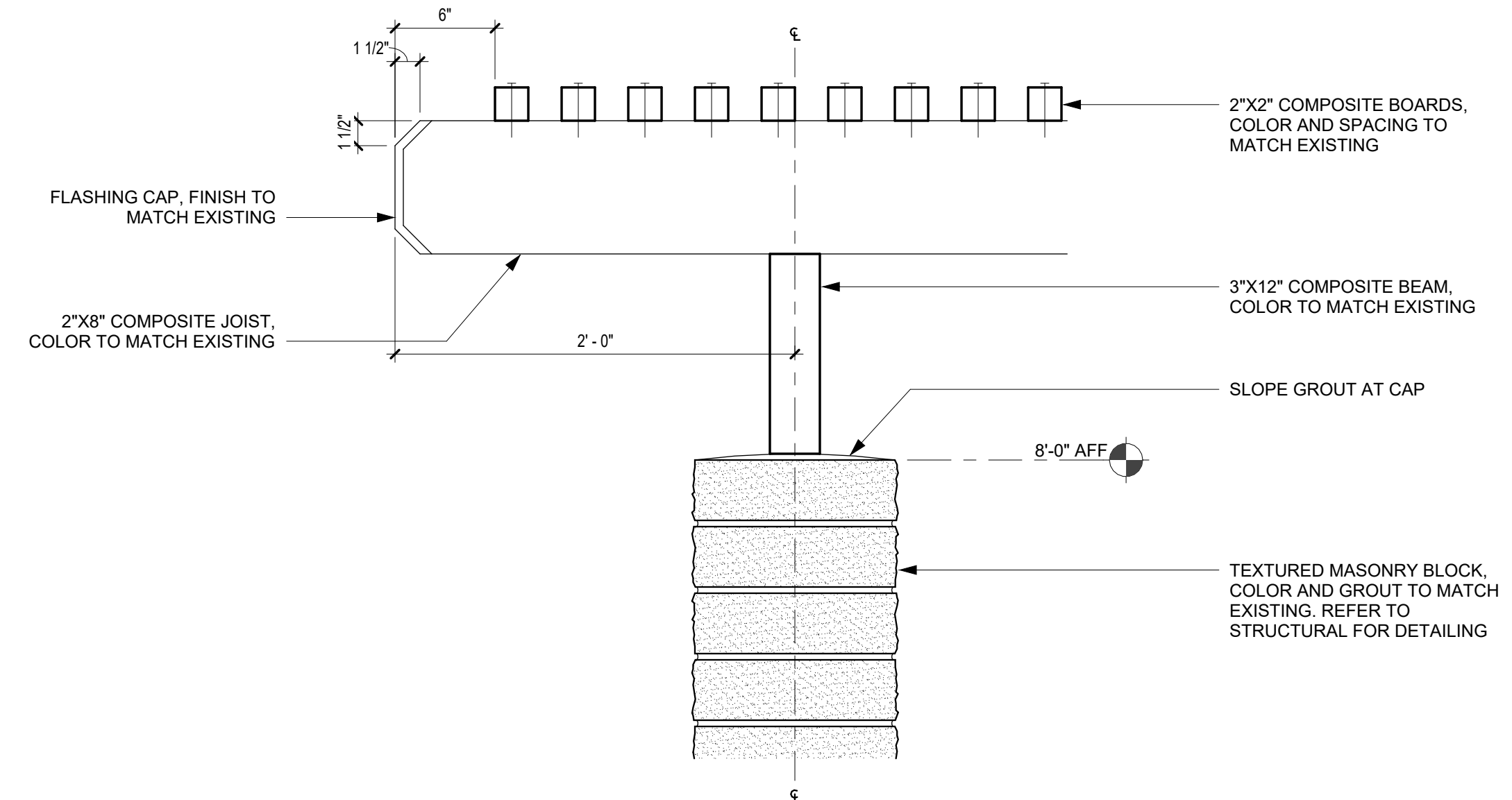
TYP ROOFING @ EQUIPMENT PAD | 11
1 1/2" = 1'-0"



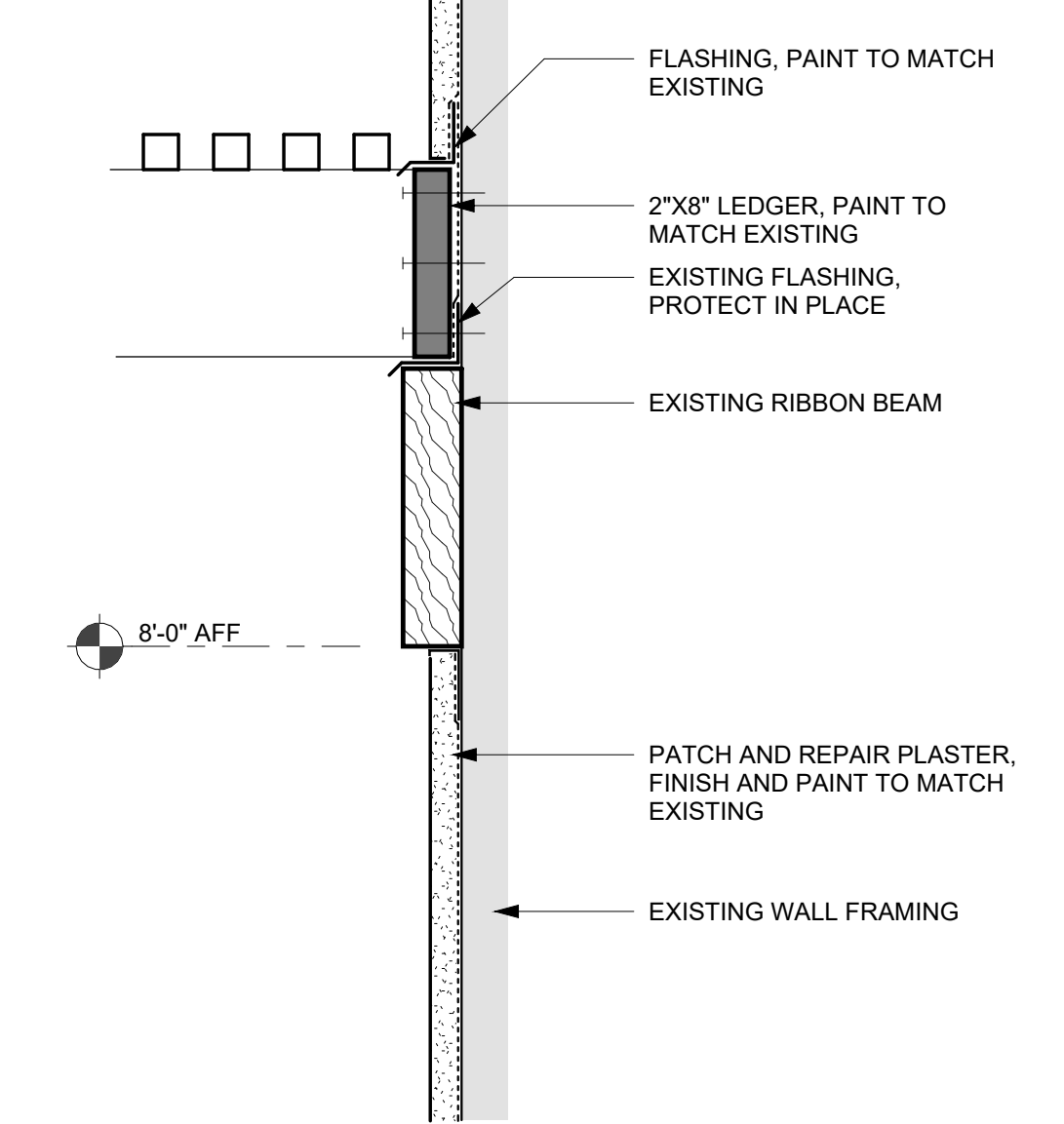
GARAGE DOOR JAMB | 07
1 1/2" = 1'-0"



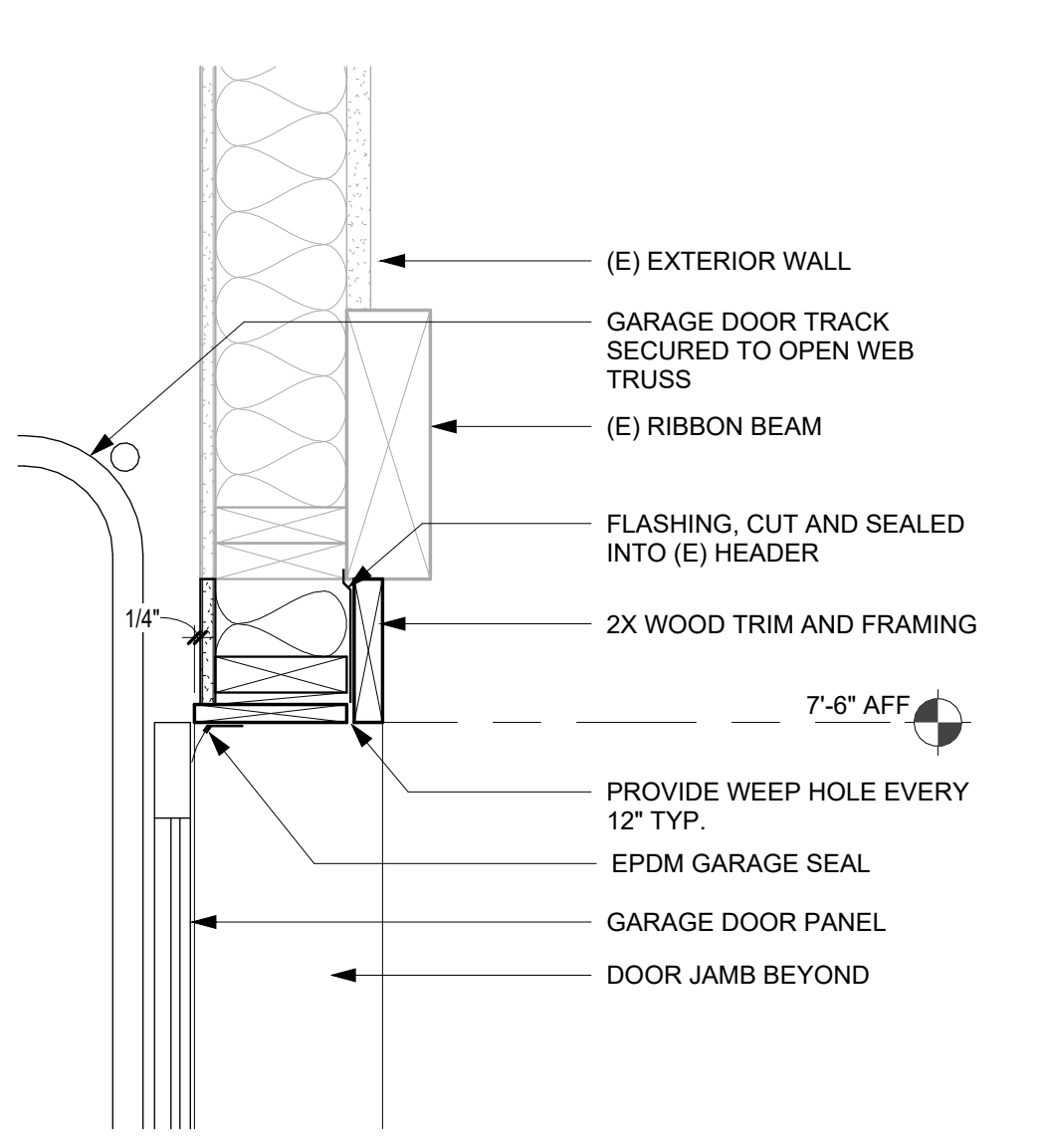
ROOF ASSEMBLY | 03
3" = 1'-0"



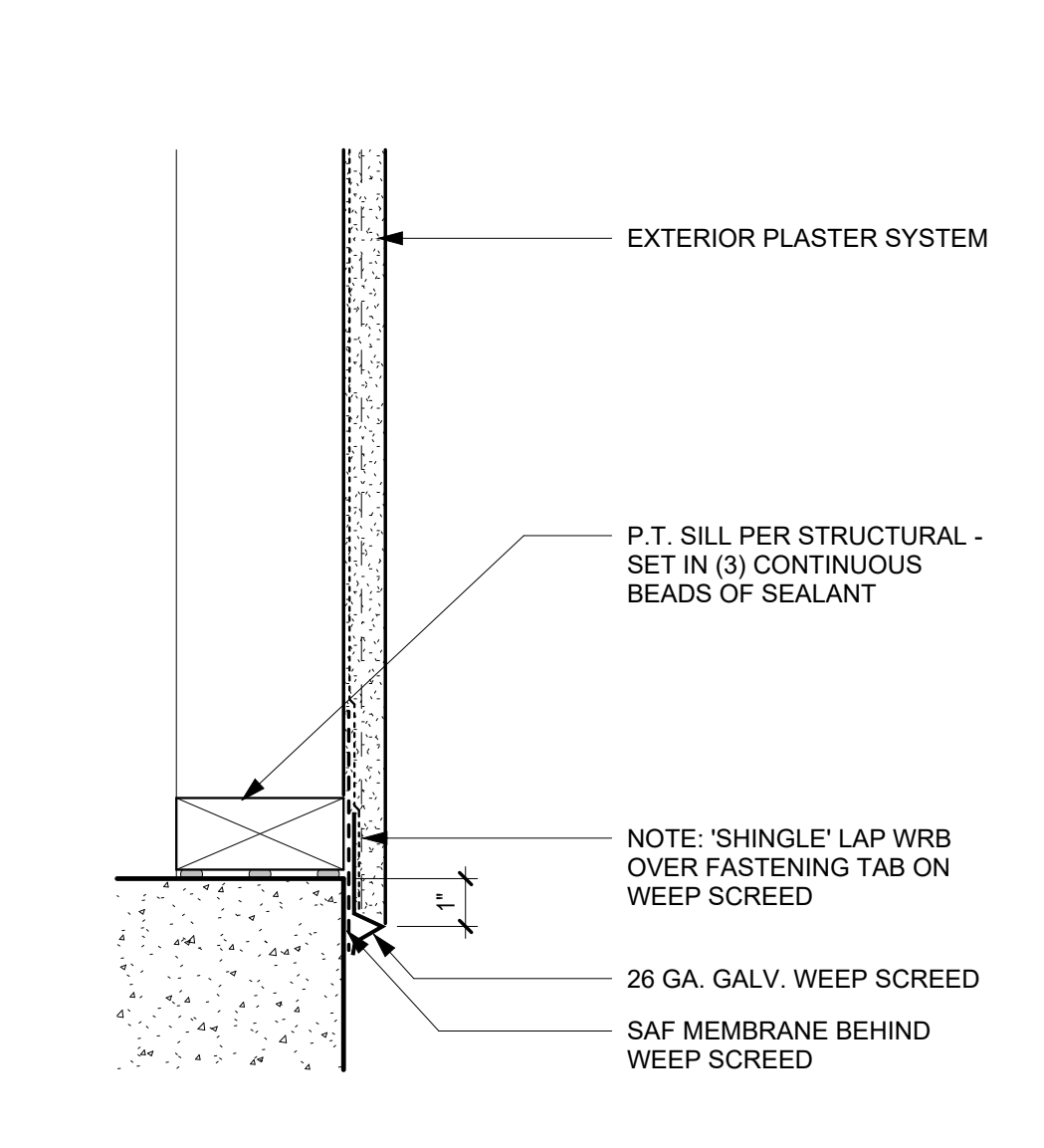
SHADE STRUCTURE - SIDE | 14
1 1/2" = 1'-0"



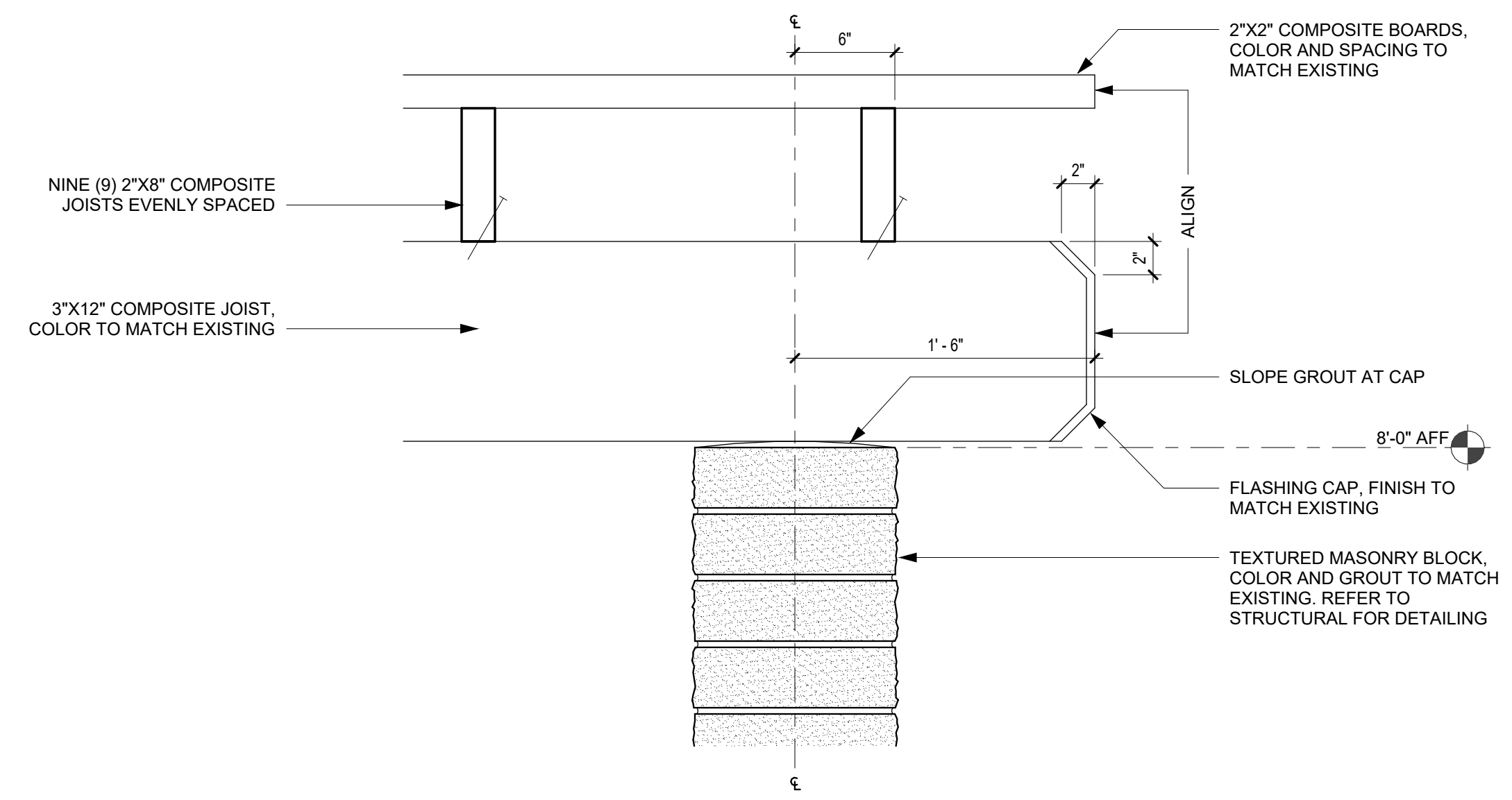
SHADE STRUCTURE - WALL CONNECTION | 10
1 1/2" = 1'-0"



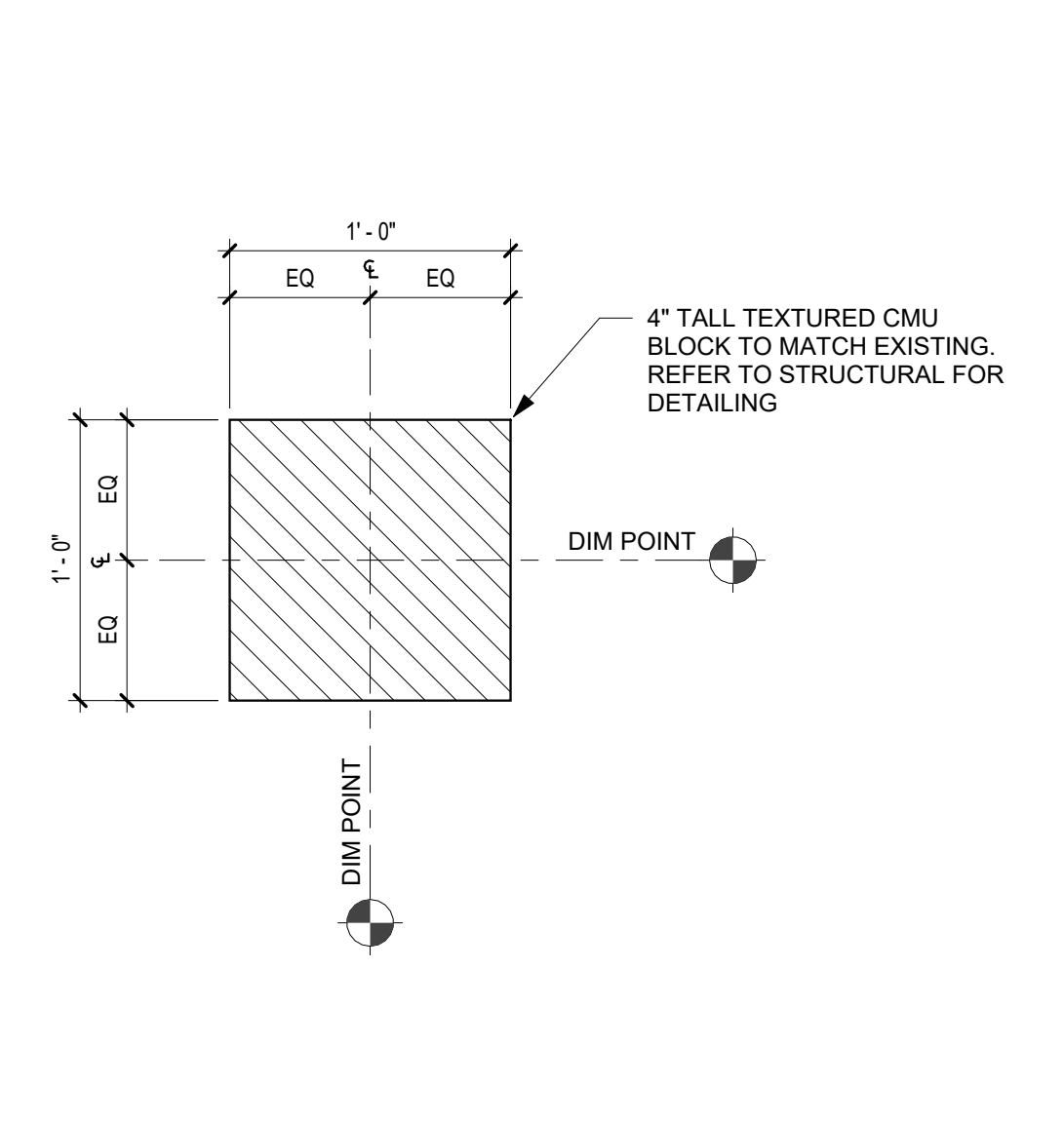
GARAGE DOOR HEAD | 06
1 1/2" = 1'-0"



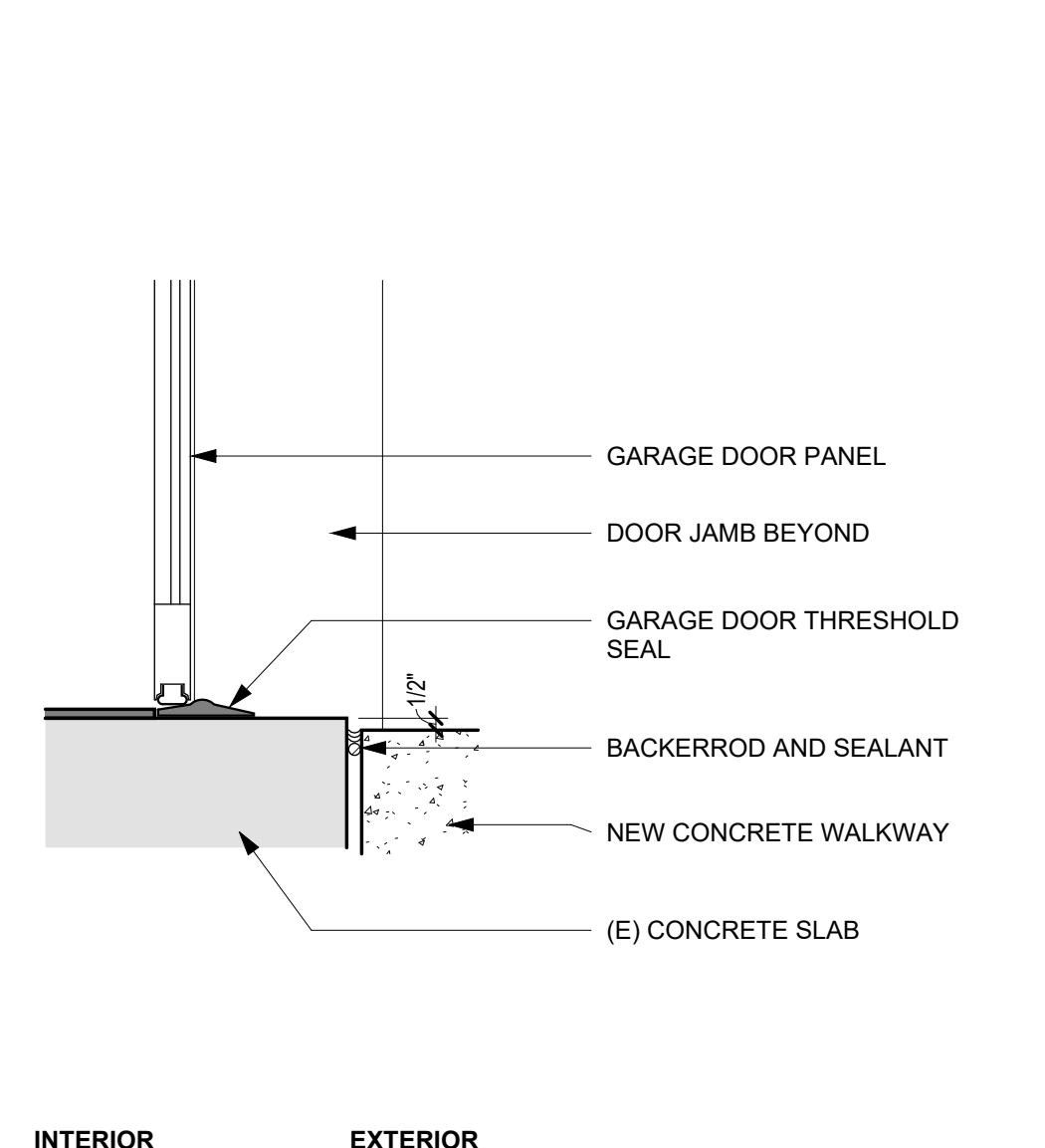
TYP. WEEP SCREED | 02
3" = 1'-0"



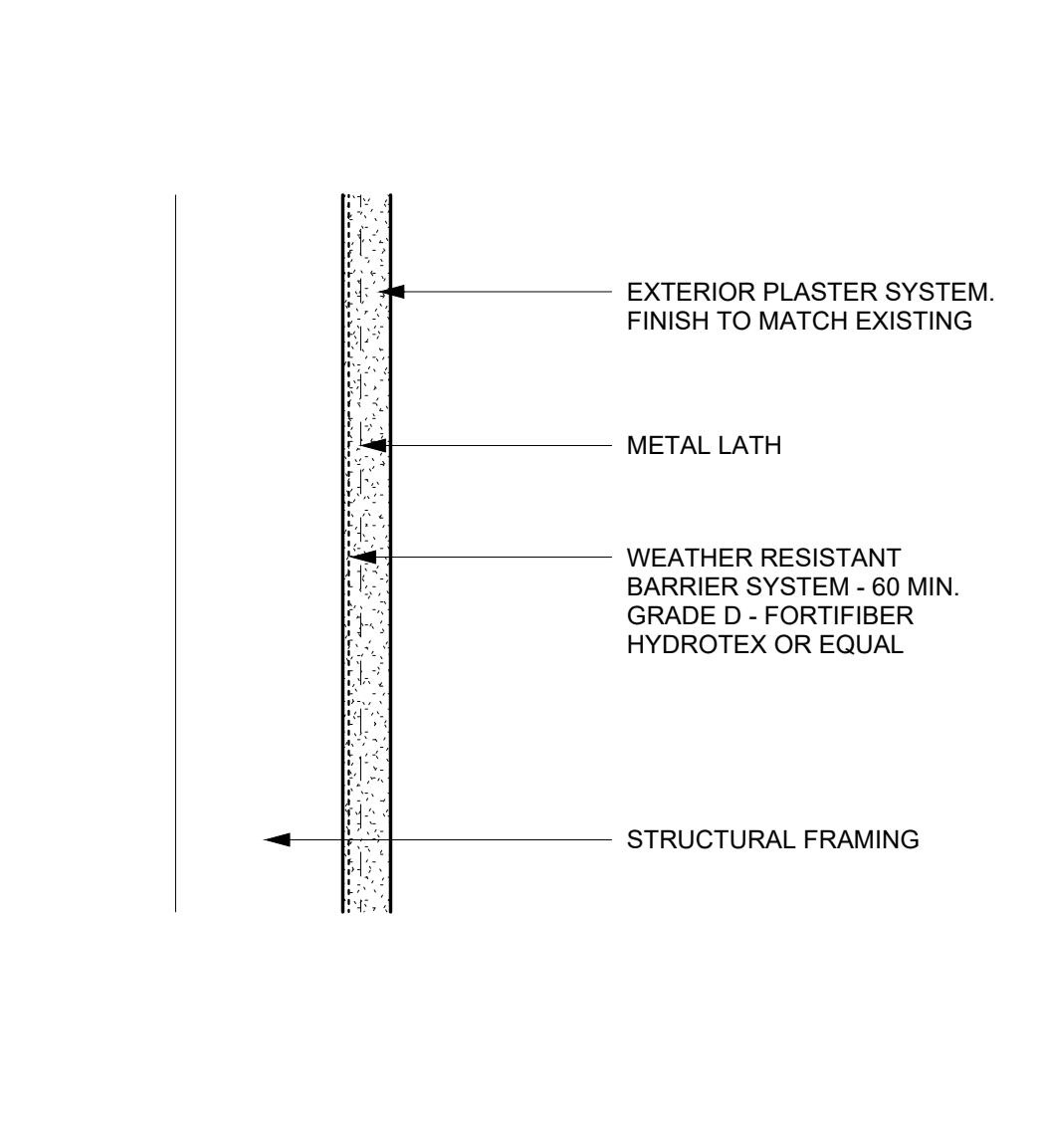
SHADE STRUCTURE - FRONT | 13
1 1/2" = 1'-0"



MASONRY COLUMN | 09
1 1/2" = 1'-0"

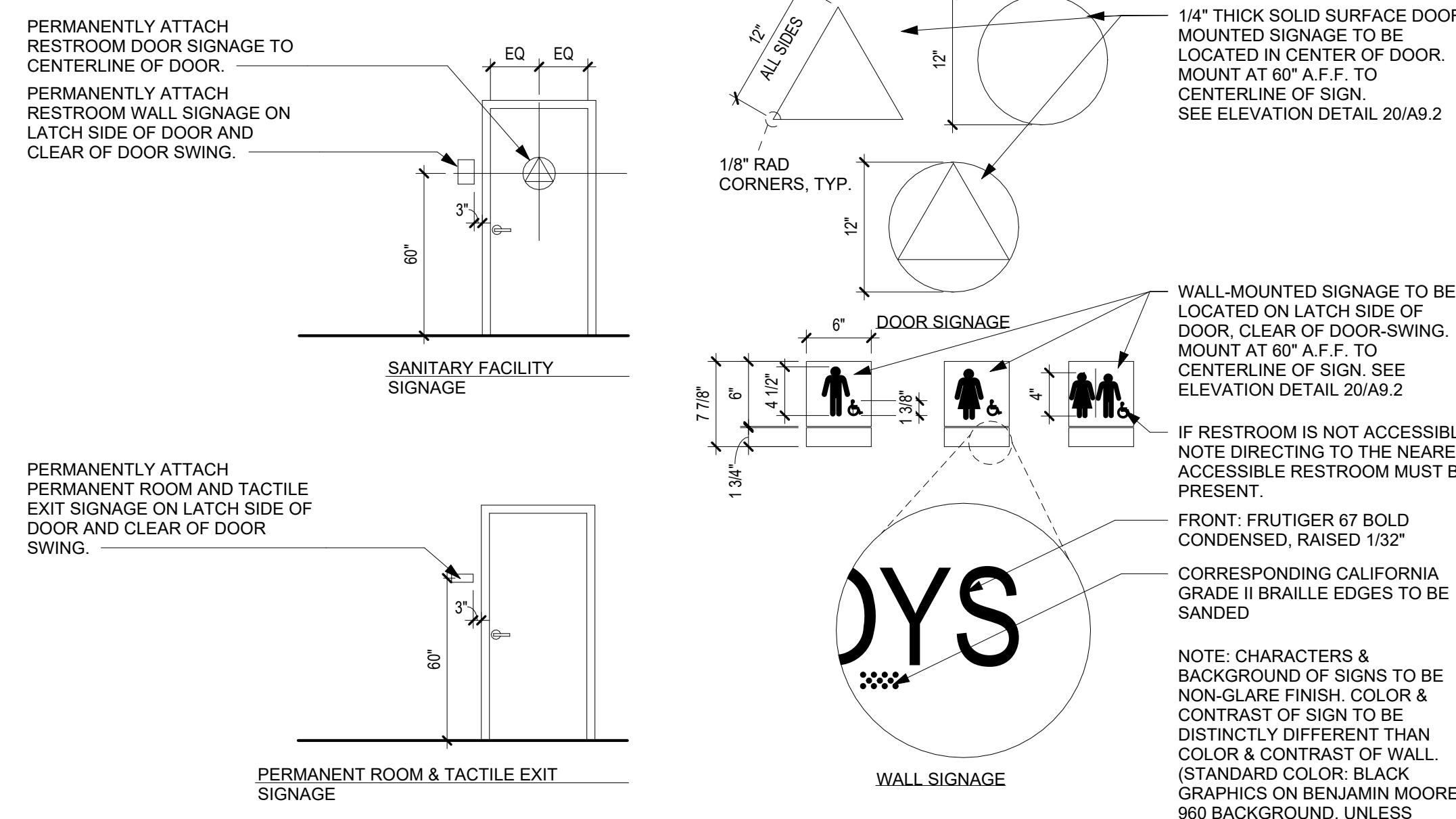


GARAGE DOOR THRESHOLD | 05
1 1/2" = 1'-0"



EXTERIOR PLASTER SYSTEM | 01
3" = 1'-0"

OPENING FLASHING | 21
3/8" = 1'-0"

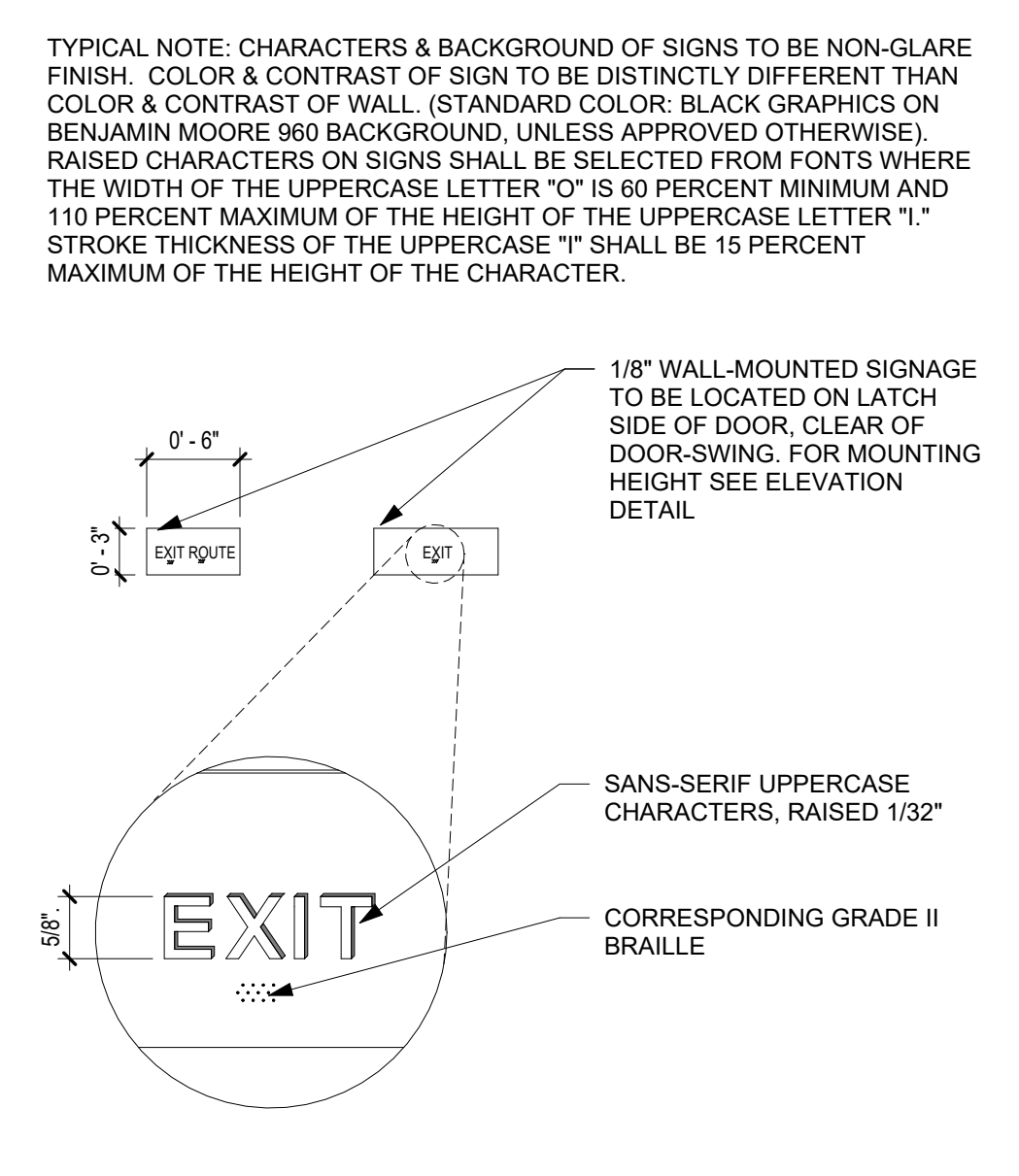


RM & TACTILE EXIT SIGNAGE
1/4" = 1'-0" | 20

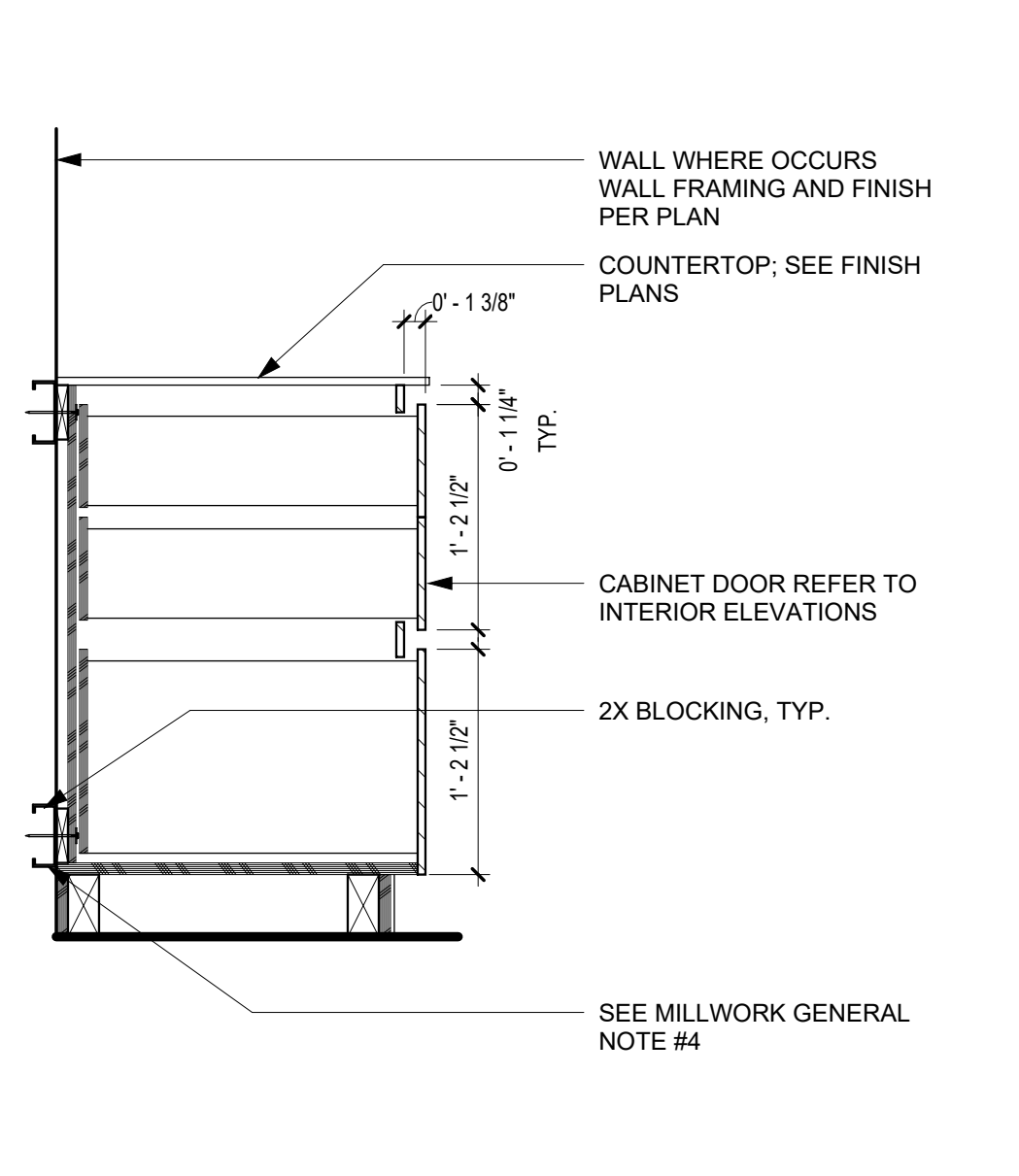
RESTROOM SIGNAGE
1" = 1'-0" | 16

- 1. CHARACTER TYPE AND SIZE**
CHARACTERS ON SIGNS SHALL BE RAISED 1/32" UPPER CASE, 'HELvetica' TYPE AND SHALL BE ACCOMPANIED WITH GRADE II BRAILLE. RAISED CHARACTERS SHALL BE AT LEAST 5/8" HIGH, BUT NO HIGHER THAN 2"
- 2. BRAILLE STANDARD DIMENSIONS:**
CALIFORNIA CONTRACTED GRAD II BRAILLE SHALL BE USED WHEREVER BRAILLE IS REQUIRED. INDIVIDUAL BRAILLE DOTS SHALL EACH BE DISTINCT AND SEPARATE. EACH DOT SHALL BE ROUNDED OR DOMED IN LIEU OF SQUARE AND FLAT TOPPED. DOTS SHALL BE RAISED A MINIMUM OF 1/40" ABOUT THE BACKGROUND.
- 3. FINISH AND CONTRAST**
CHARACTERS, SYMBOLS AND THEIR BACKGROUNDS SHALL HAVE A NON-GLARE FINISH AND CONTRAST 70% MIN. WITH THEIR BACKGROUNDS.
- 4. PROPORTIONS**
- 5. CHARACTERS AND SYMBOLS SHALL HAVE A WIDTH-TO-HEIGHT RATIO OF BETWEEN 9:5 AND 1:1 AND A STROKE WIDTH-TO-HEIGHT RATIO OF BETWEEN 1:5 AND 1:10, 1117B.5.3**
- 6. EXTERIOR SIGNS SHALL BE METAL COMPONENTS SUITABLE TO EXTERIOR USE AND SIMILAR TO INTERIOR SIGNS FOR SHAPE AND FORM. *****
- 7. CONTRACTOR TO SUBMIT A SCHEDULE TO VERIFY ALL PERMANENT NUMBERS AND TEXT PRIOR TO FABRICATION.**
- 8. SIGNAGE TO BE 'IM' SYSTEM BY 'APCO', U.N.O.**
- NOTE: SIGNAGE SHALL COMPLY WITH CBC SECTION 1117B.5

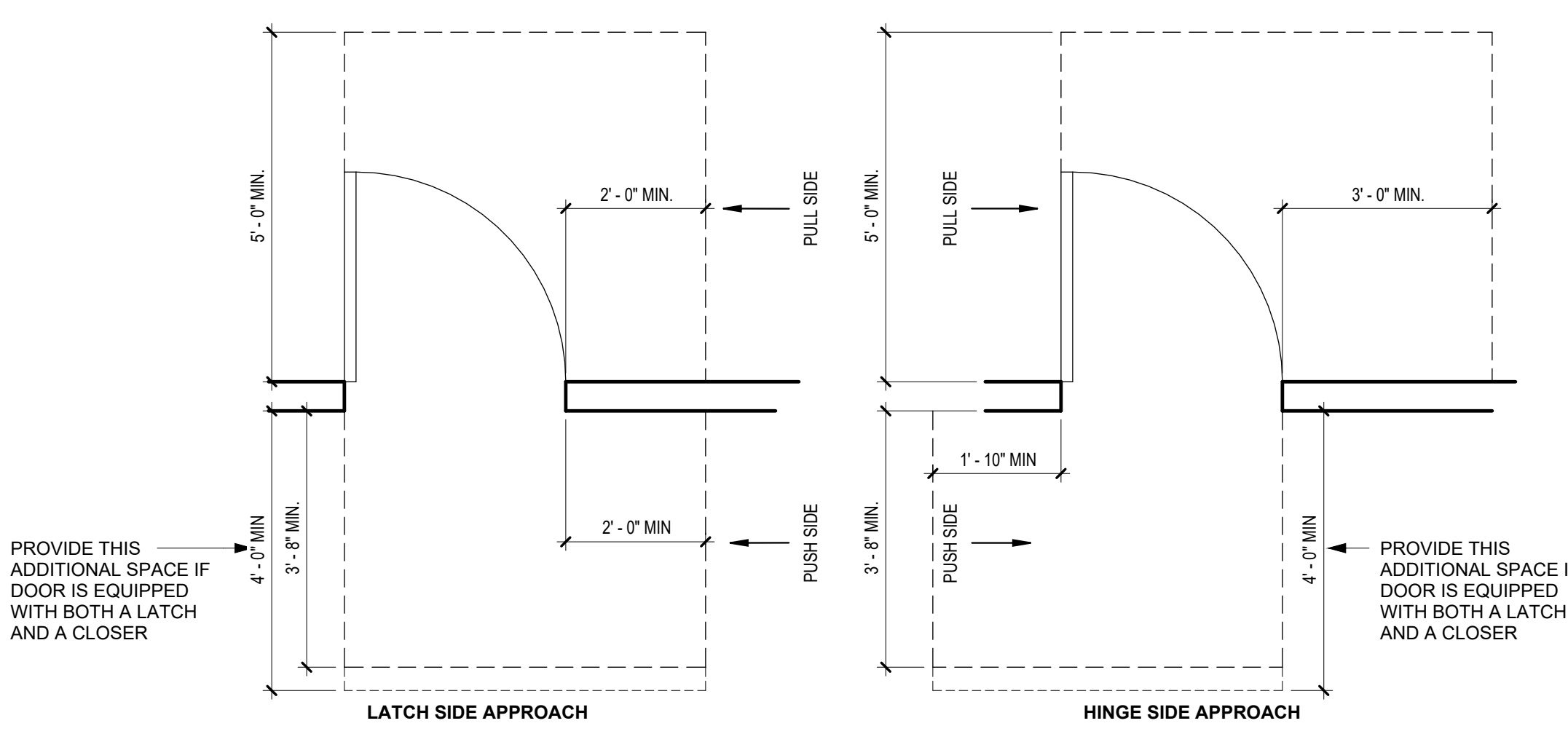
SIGNAGE GENERAL NOTES
3" = 1'-0" | 12



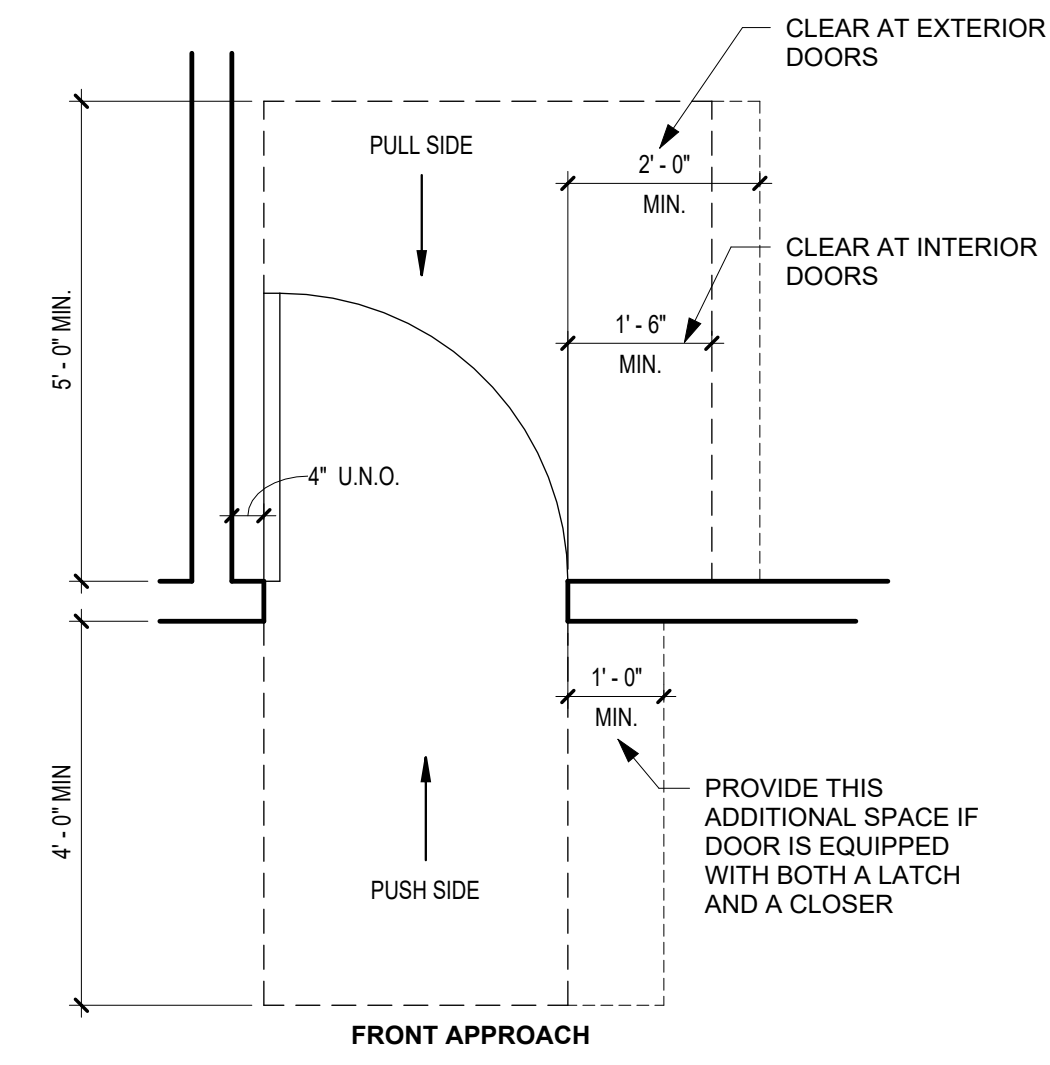
EXIT SIGNAGE
1" = 1'-0" | 08



LOWER CABINET - DRAWERS
1" = 1'-0" | 04

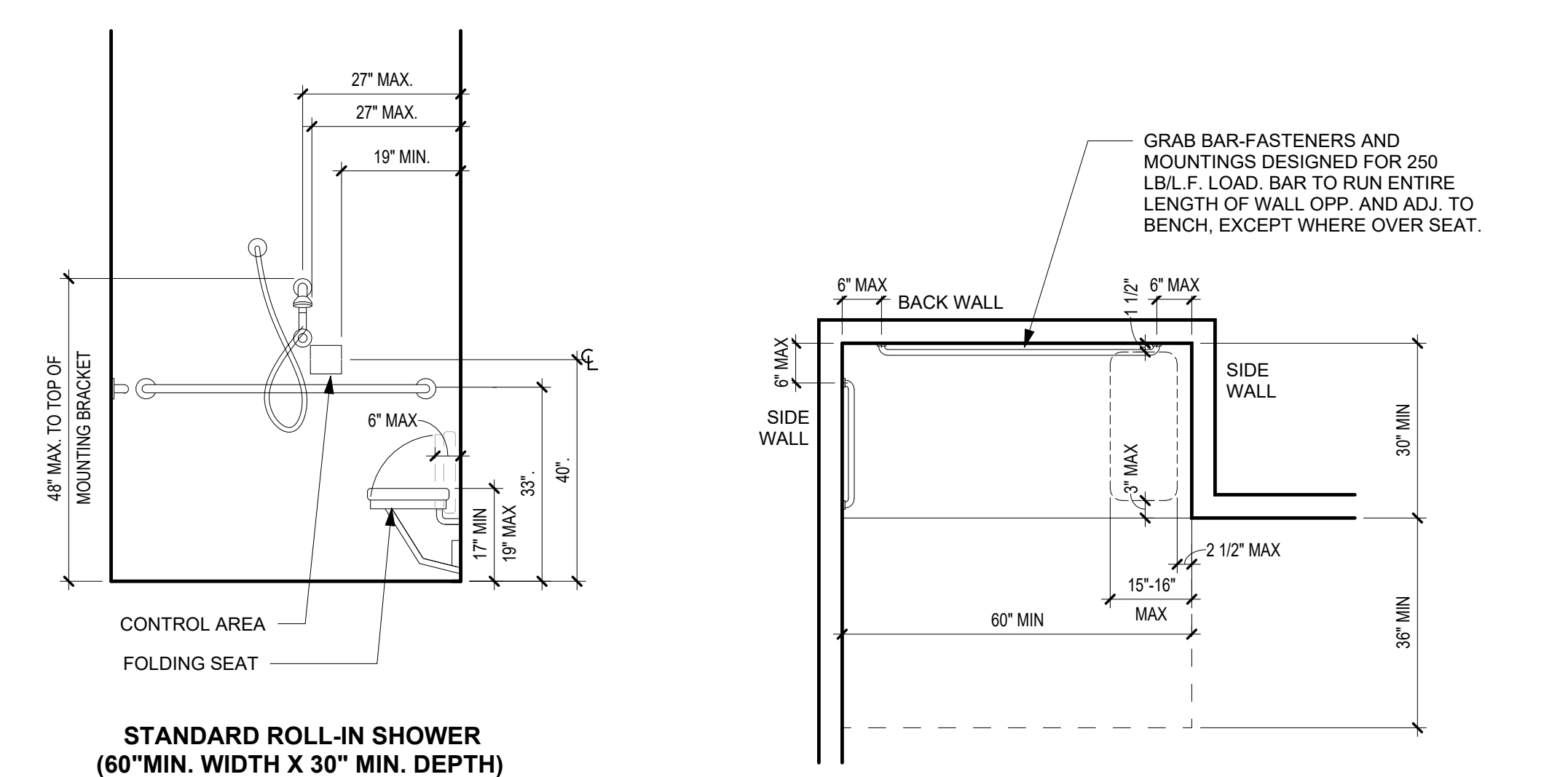


LATCH SIDE APPROACH
HINGE SIDE APPROACH



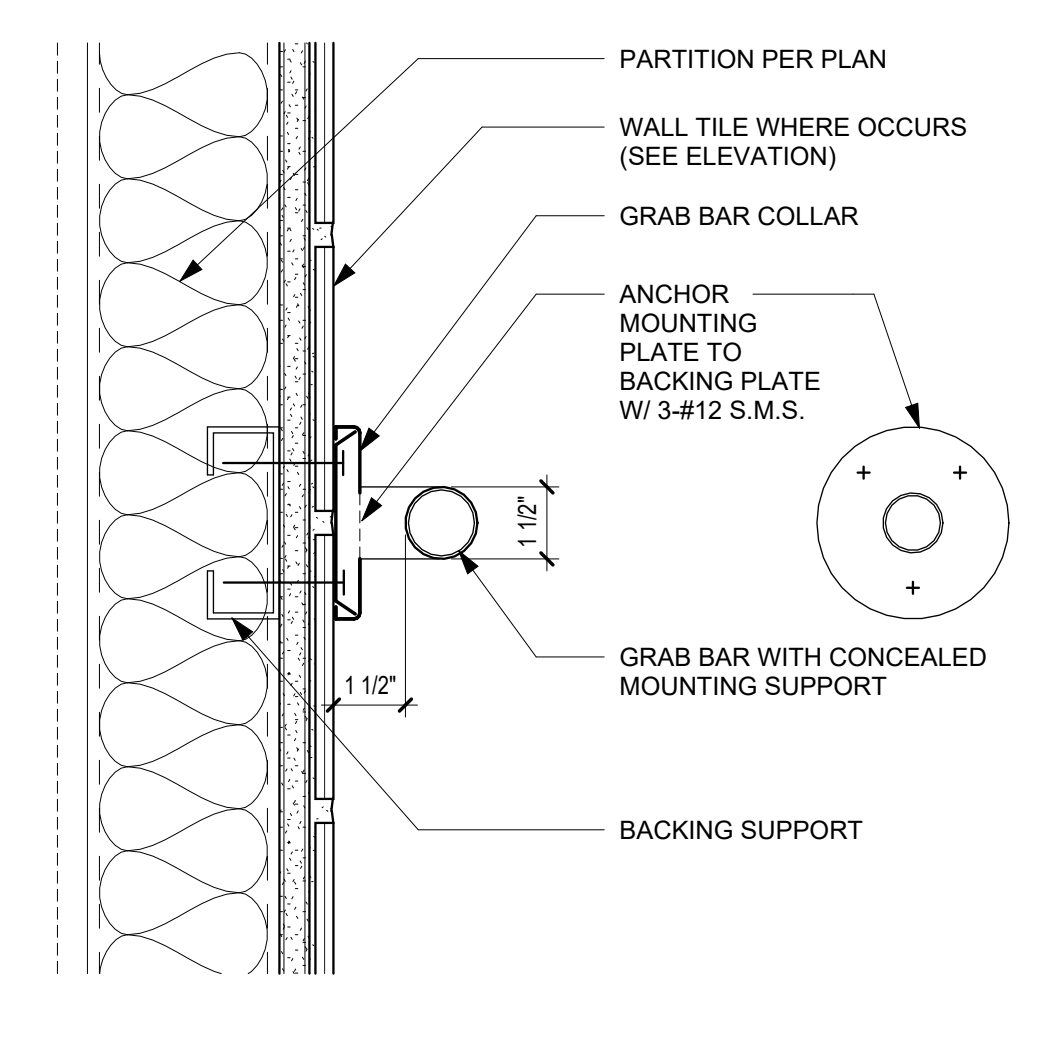
FRONT APPROACH

TYP. LEVEL CLEARANCES AT DOOR
1/2" = 1'-0" | 11

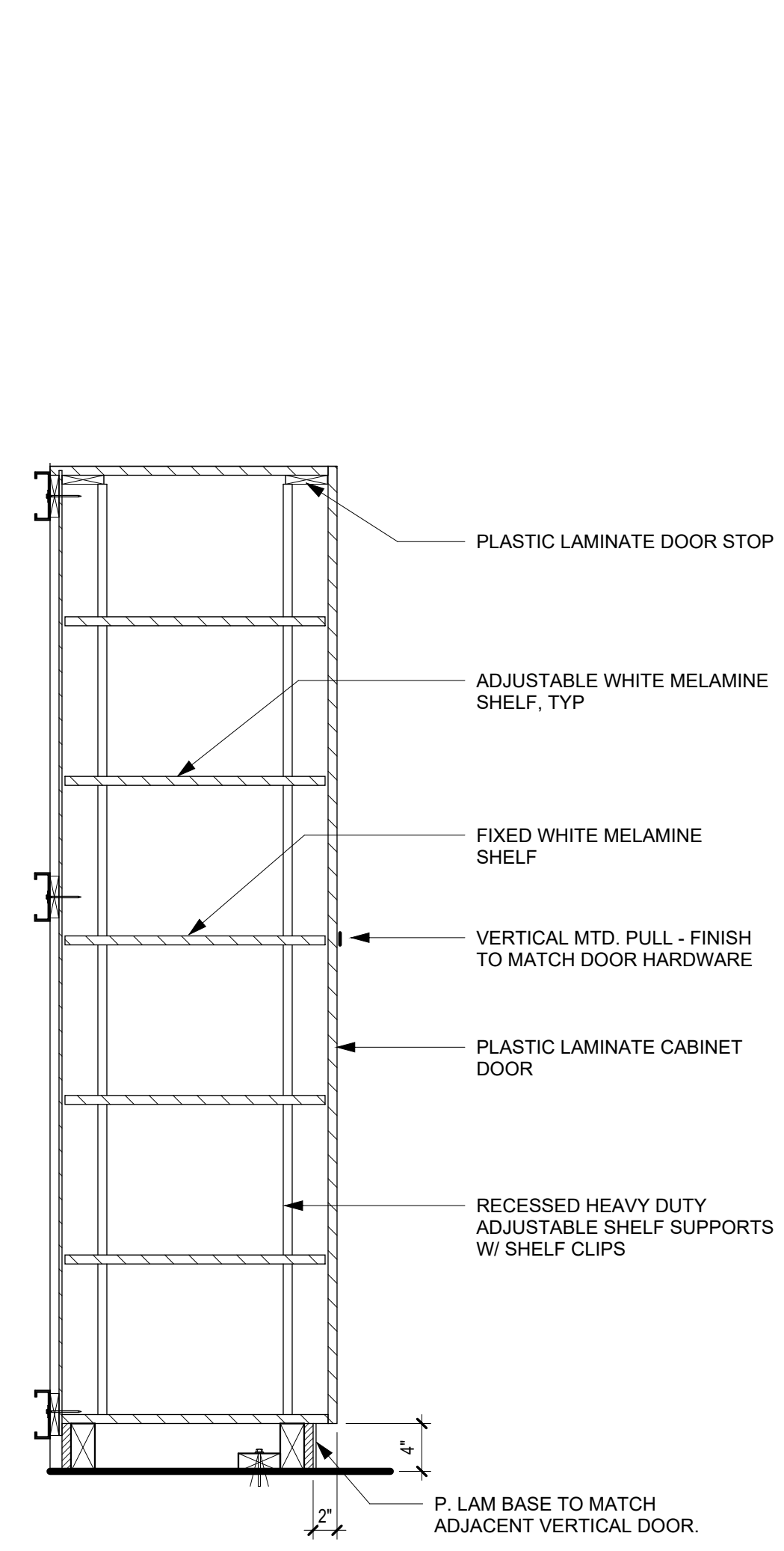


STANDARD ROLL-IN SHOWER
(60" MIN. WIDTH X 30" MIN. DEPTH)

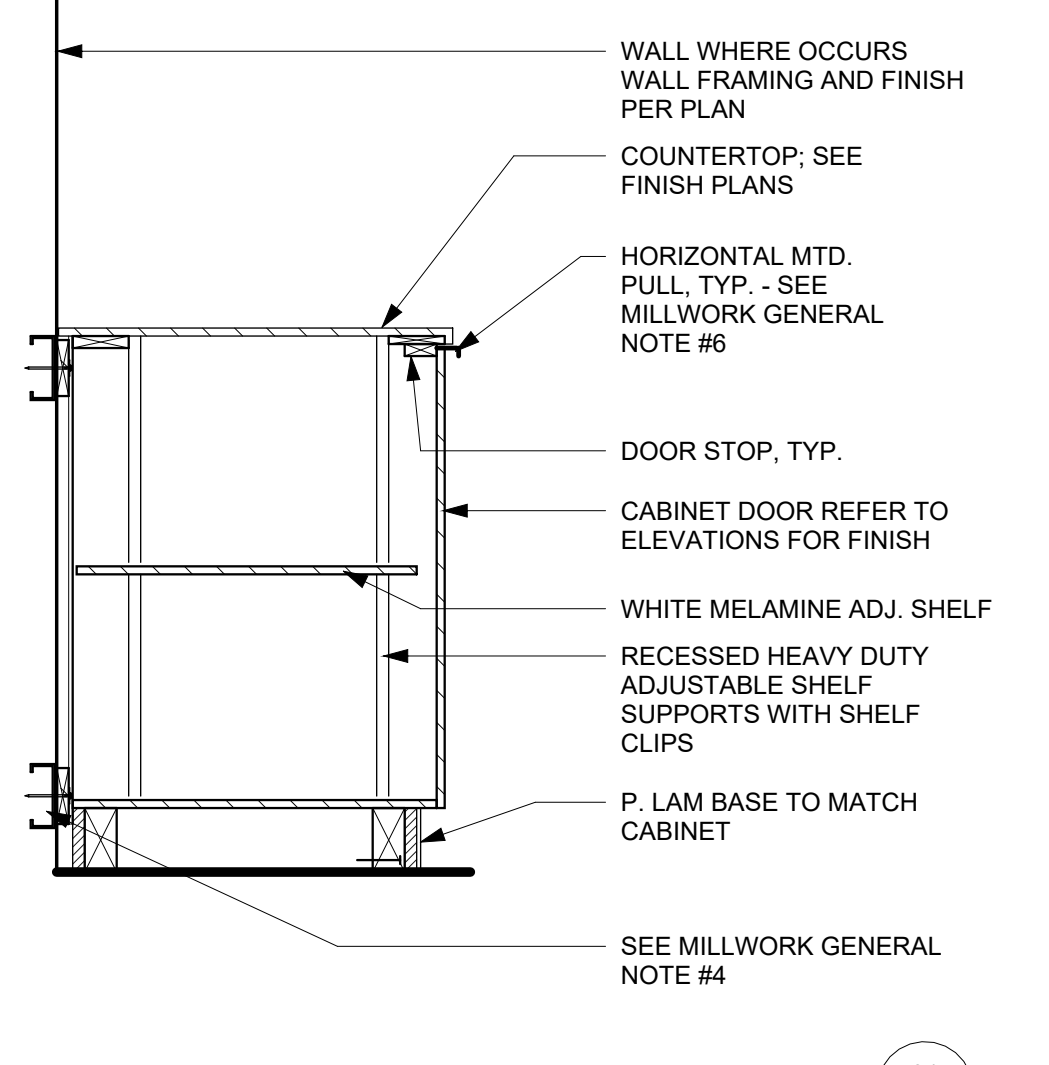
STANDARD ROLL-IN TYPE SHOWER
1/2" = 1'-0" | 14



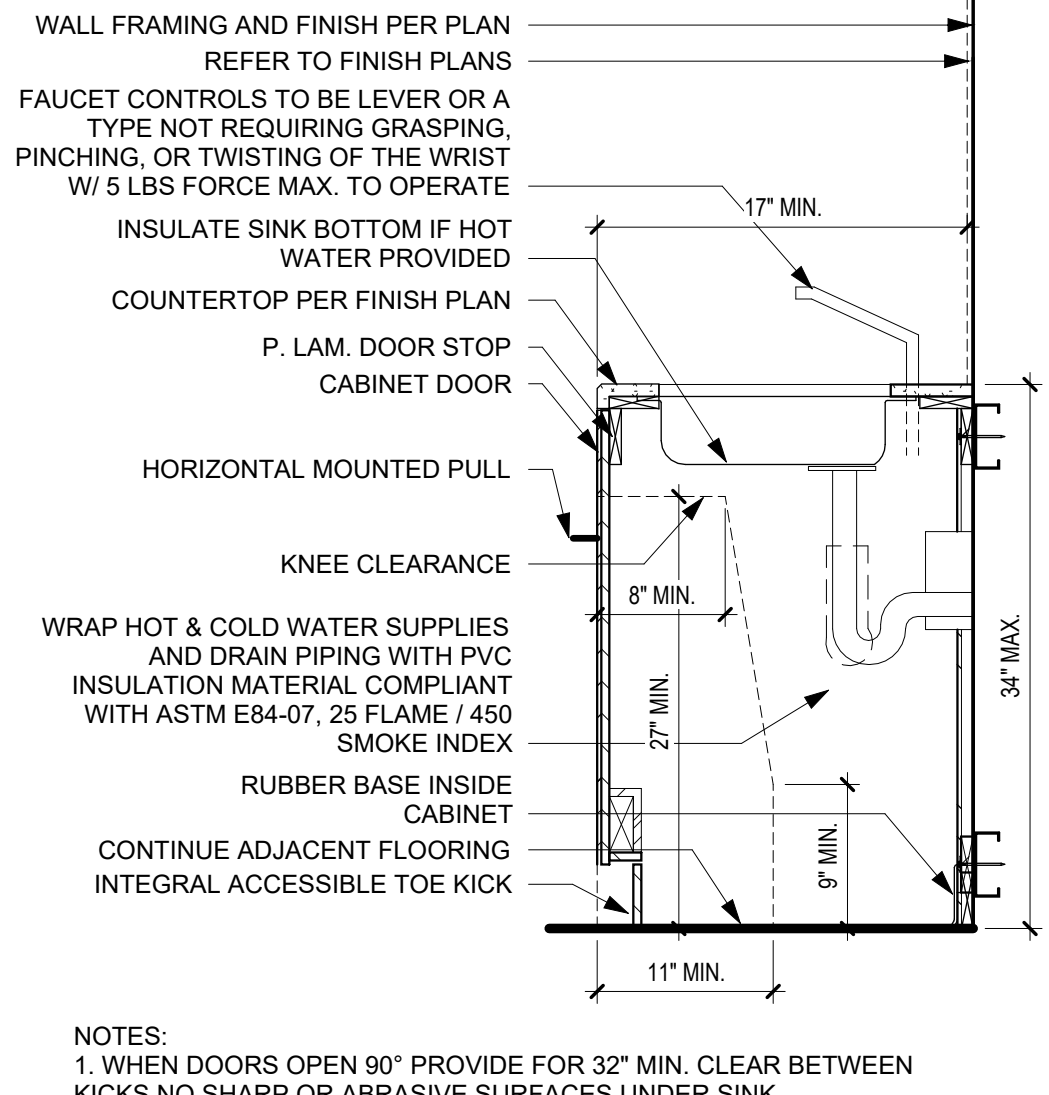
GRAB BAR AND SUPPORT
3" = 1'-0" | 10



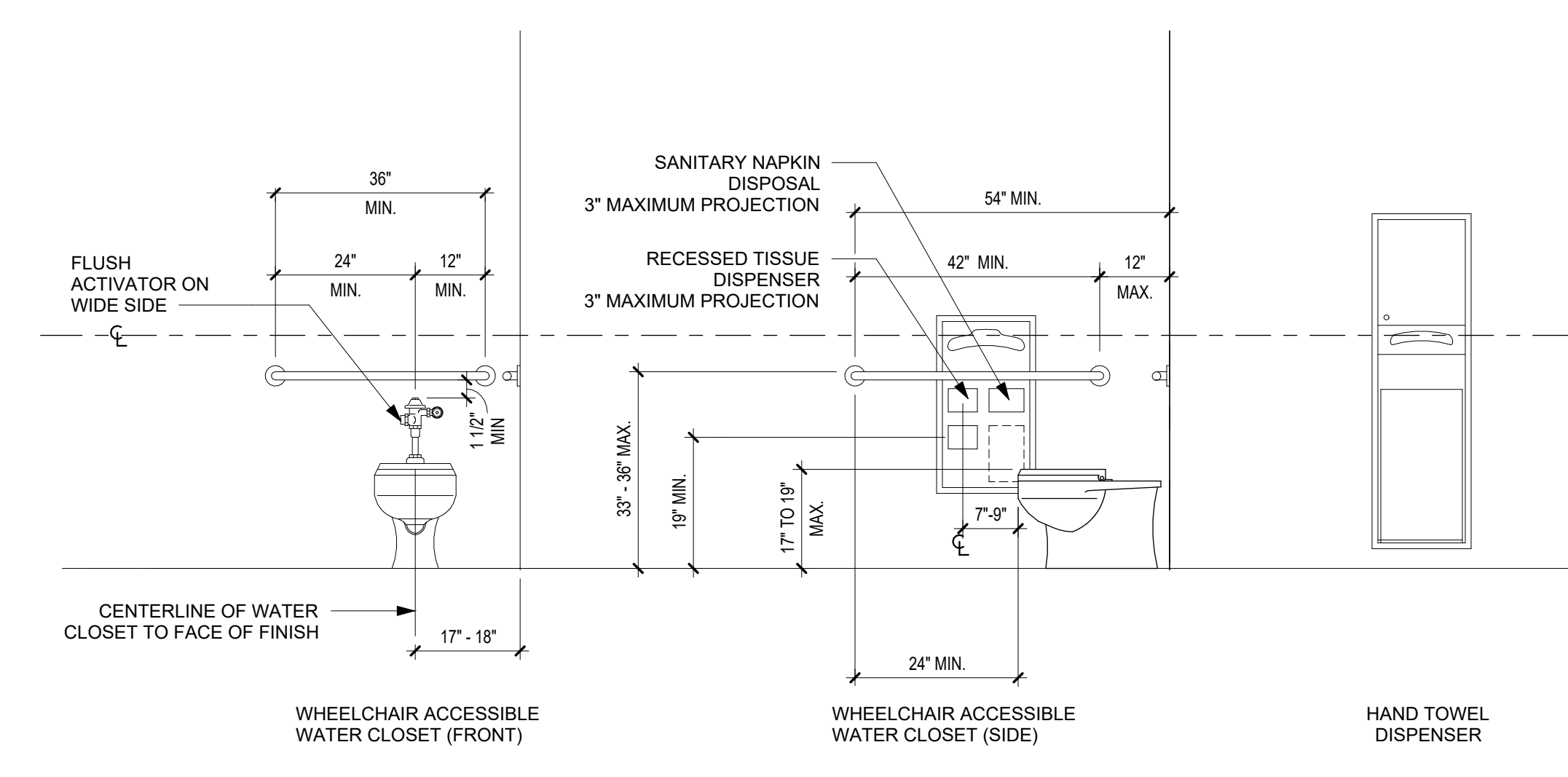
TALL CABINET
1" = 1'-0" | 06



LOWER CABINET
1" = 1'-0" | 03



LOWER CABINET WITH SINK
1" = 1'-0" | 02



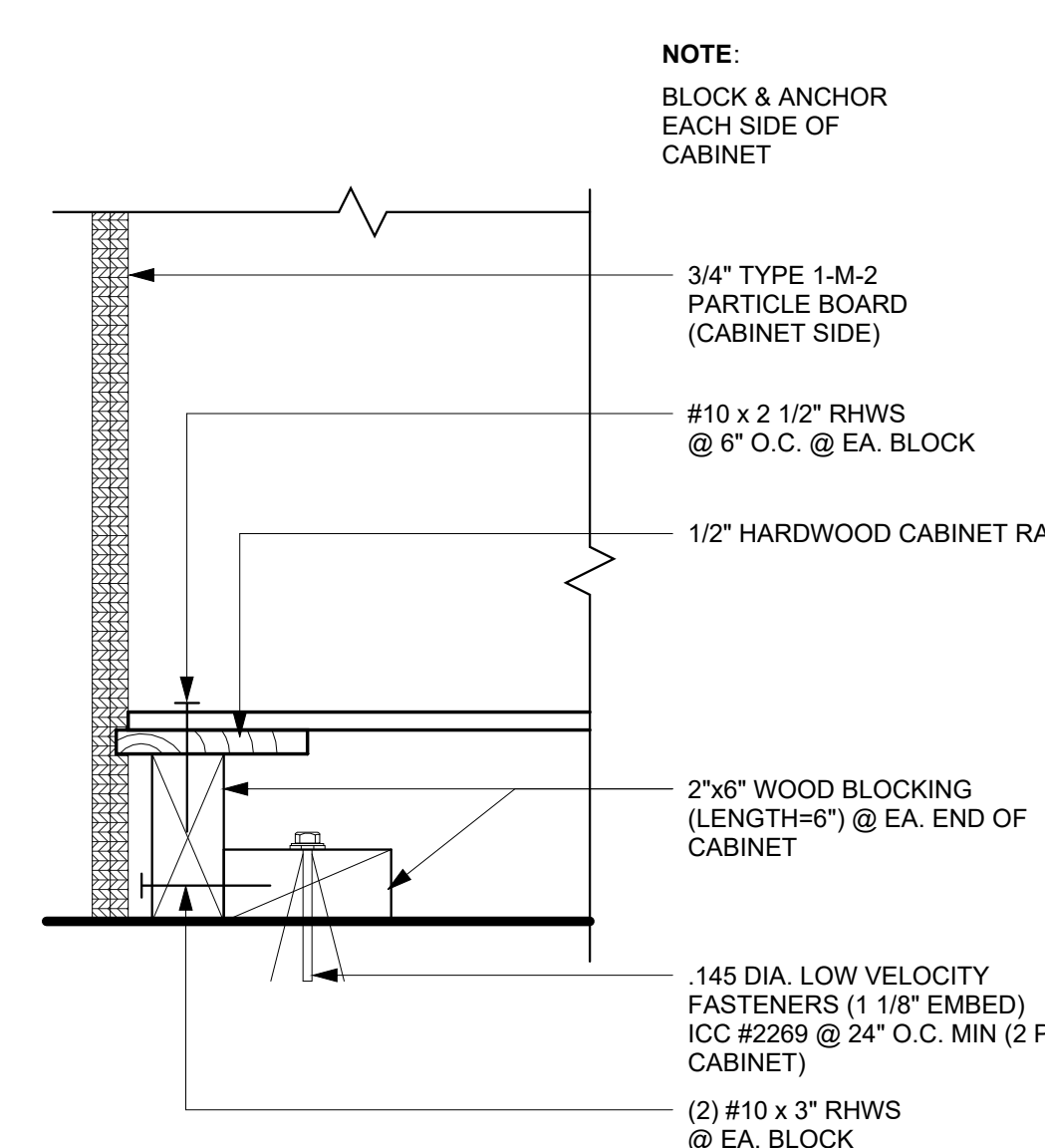
WHEELCHAIR ACCESSIBLE WATER CLOSET (FRONT)

WHEELCHAIR ACCESSIBLE WATER CLOSET (SIDE)

HAND TOWEL DISPENSER

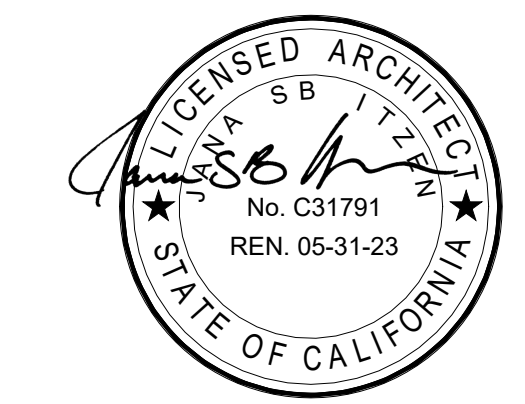
ACCESSIBLE MOUNTING HEIGHTS
1/2" = 1'-0" | 09

	INCHES
DISPENSER, HANDLE OR BOTTOM OF MIRROR	40 MAX
LA VATORY/SINK TOP HEIGHT	34 MAX
LA VATORY/SINK KNEE CLEARANCE	27 MIN



CABINET ANCHORAGE
3" = 1'-0" | 05

MILLWORK GENERAL NOTES
1 1/2" = 1'-0" | 01

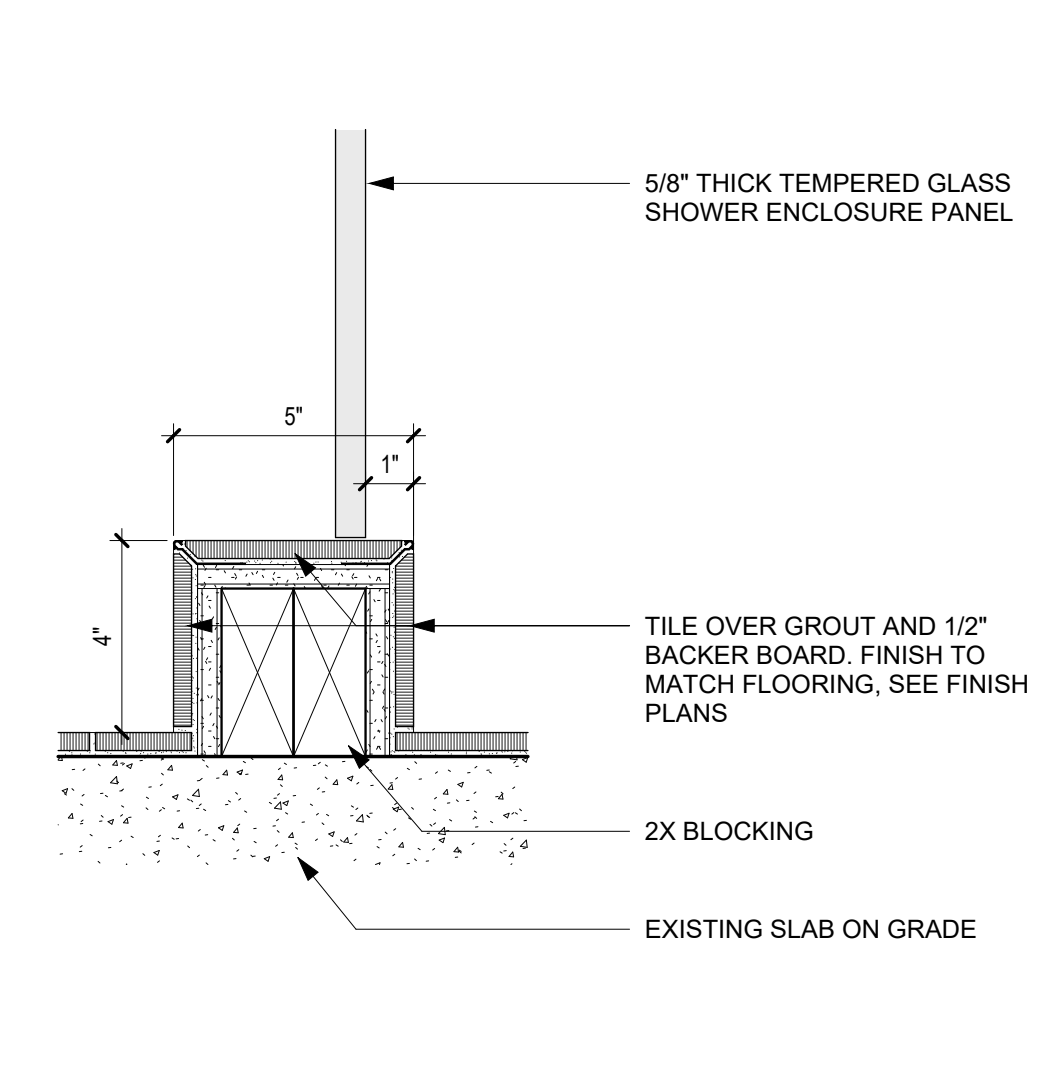
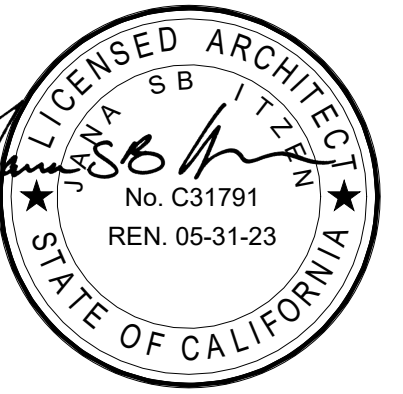
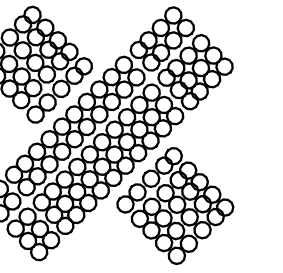


REV	DESCRIPTION	DATE
1	AGENCY RESUBMITAL #1	11/19/22

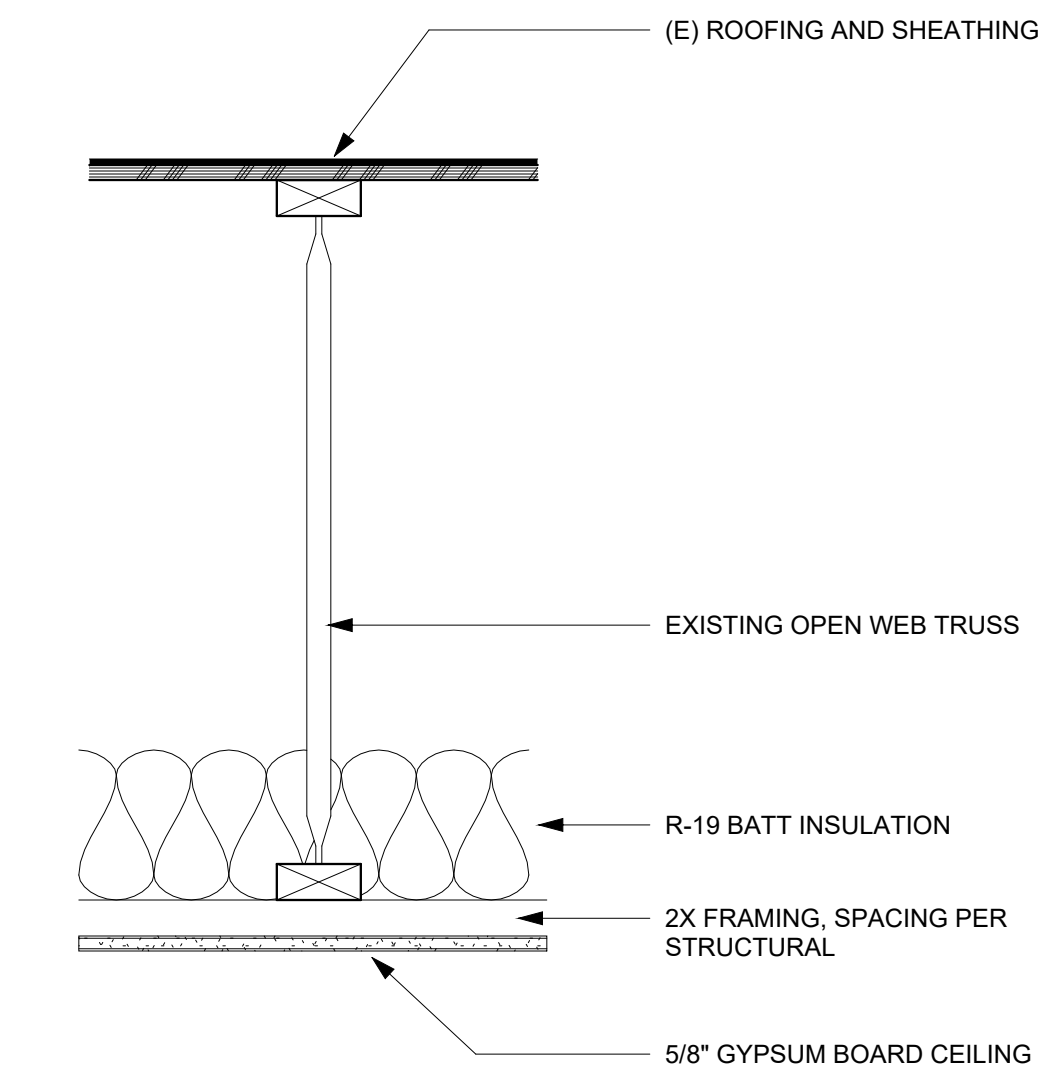
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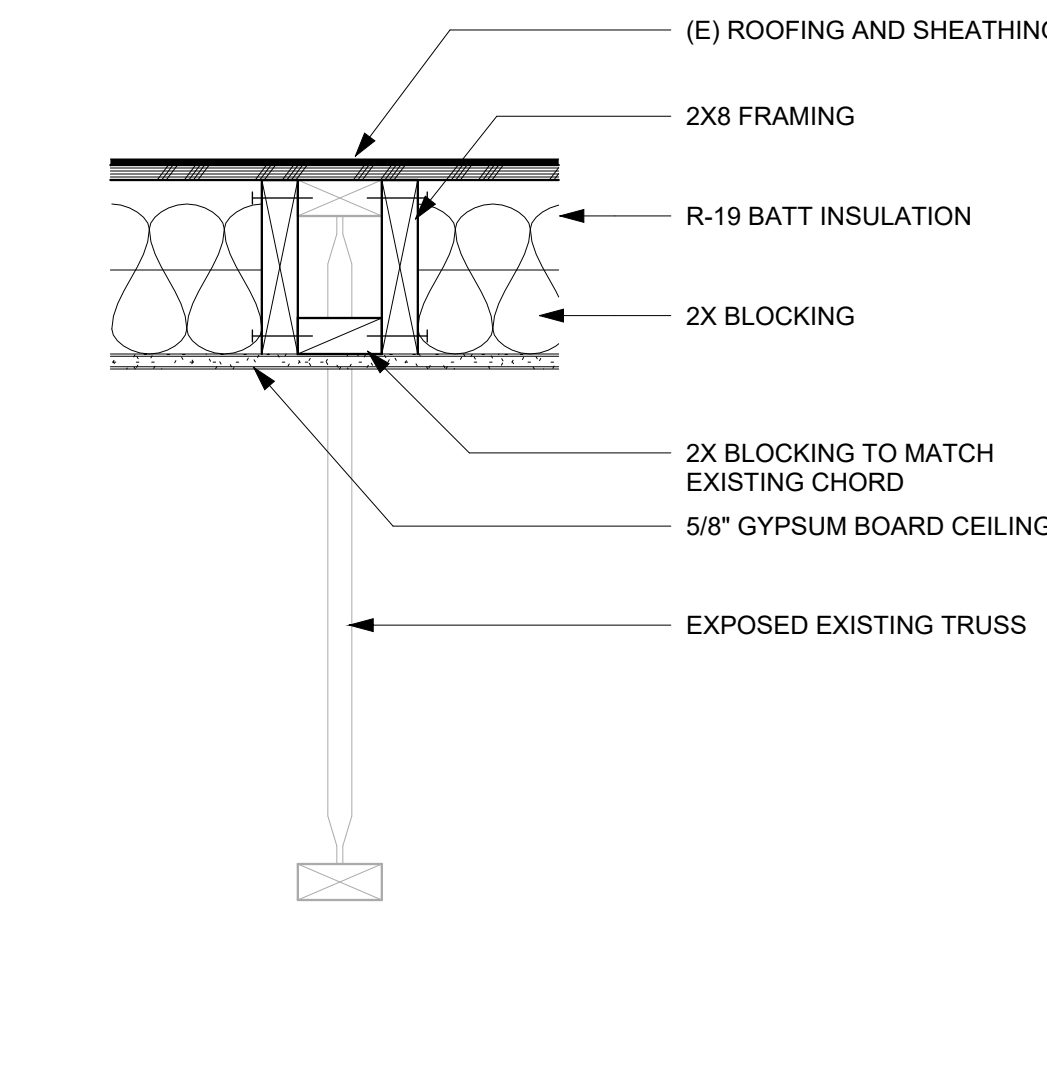
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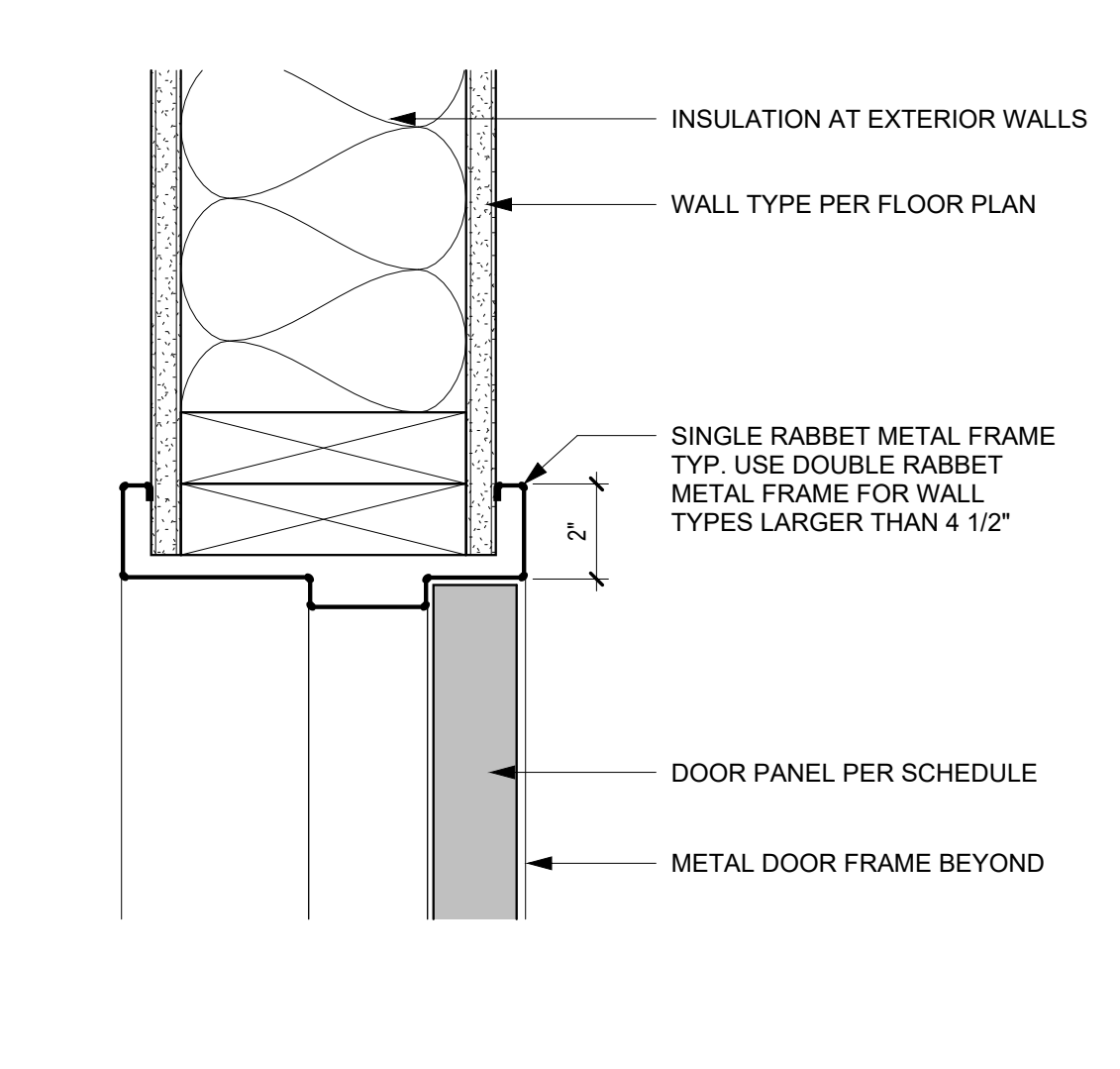
TYP. SHOWER THRESHOLD
3\"/>



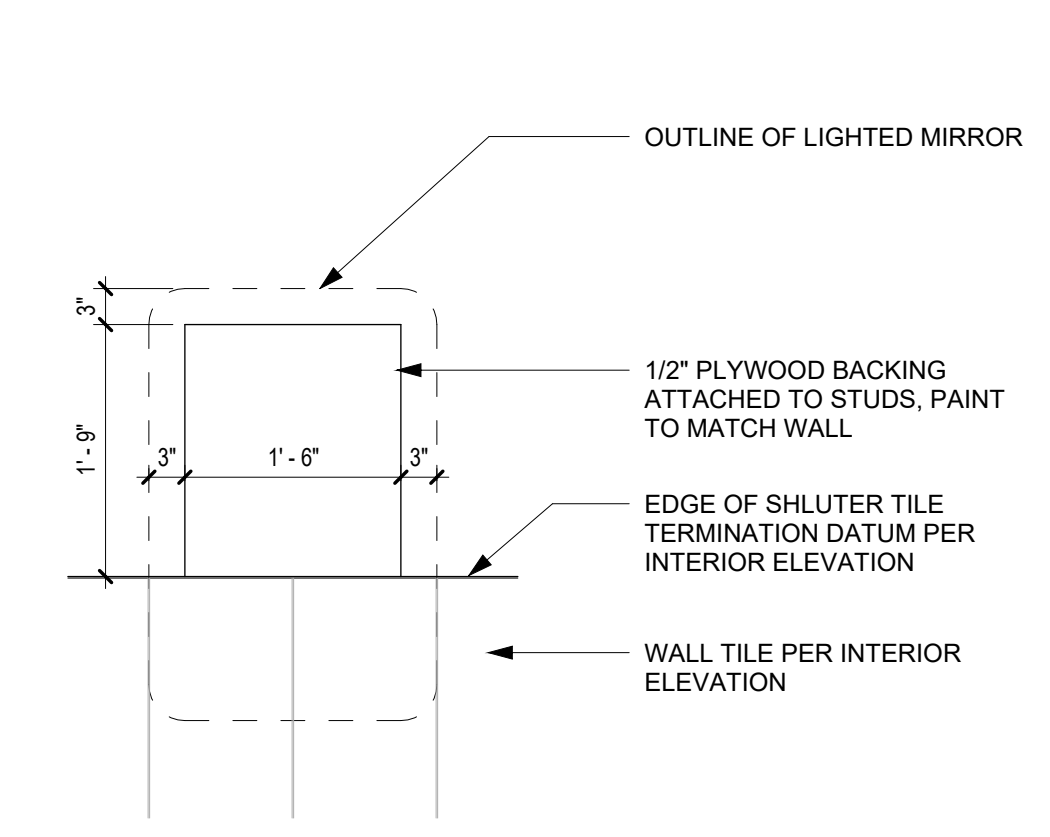
TYPICAL CEILING FRAMING
1 1/2\"/>



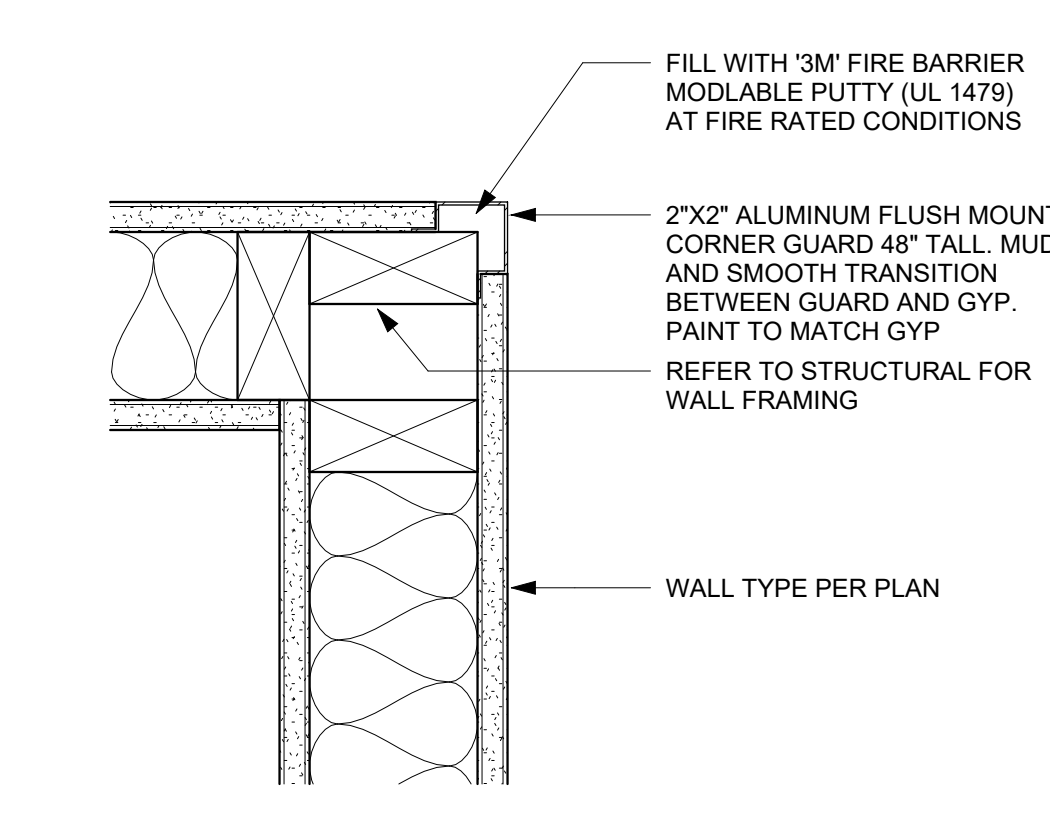
CEILING FRAMING @ FITNESS
1 1/2\"/>



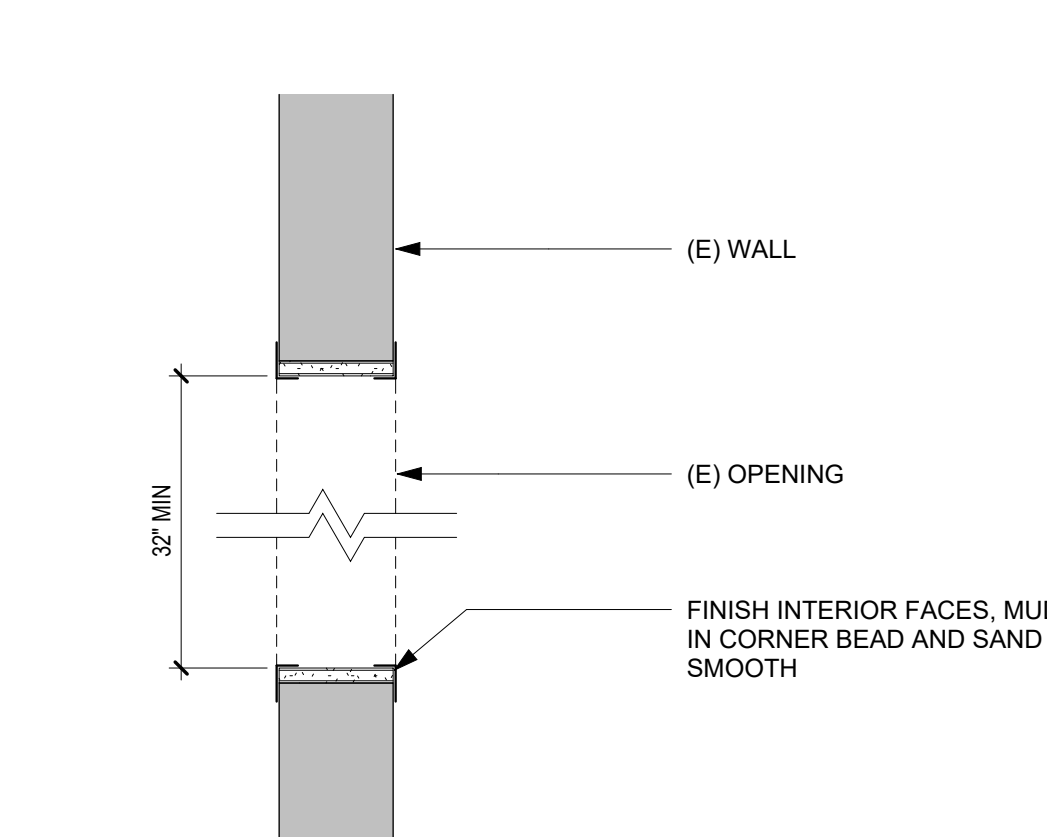
METAL FRAME HEAD (JAMB SIM)
3\"/>



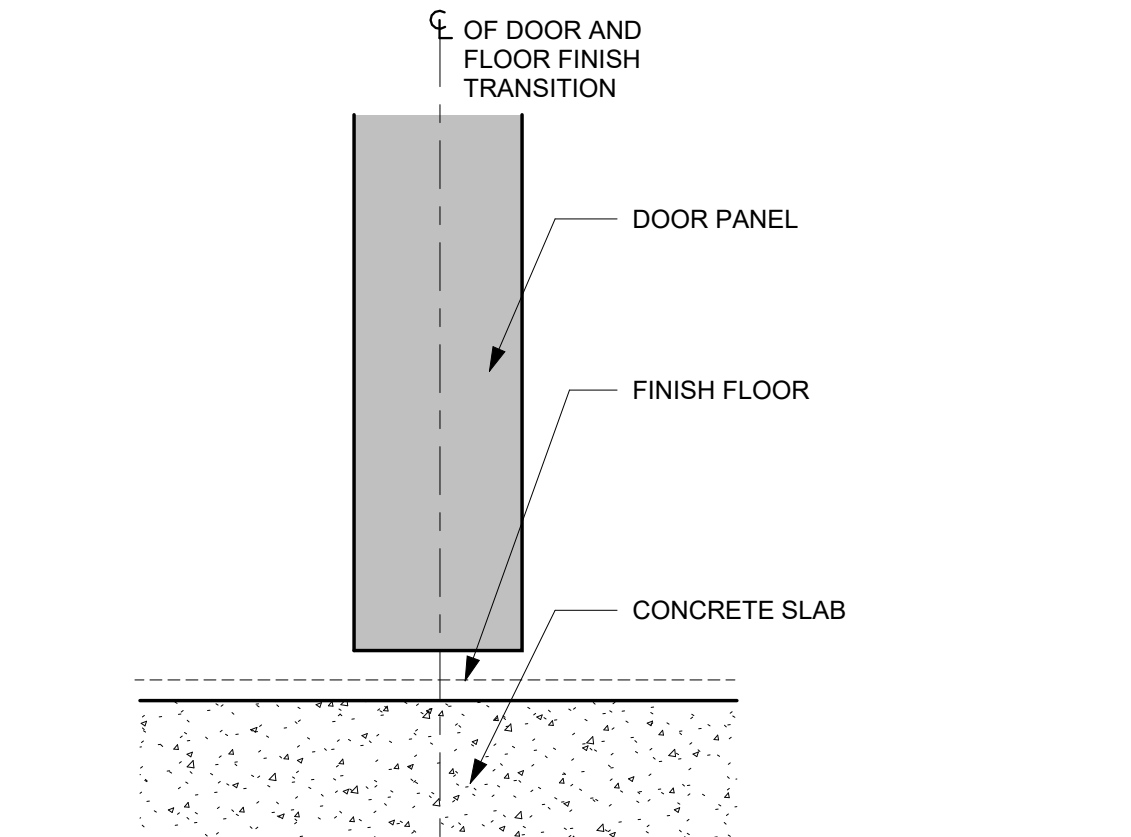
MIRROR BACKING
3/4\"/>



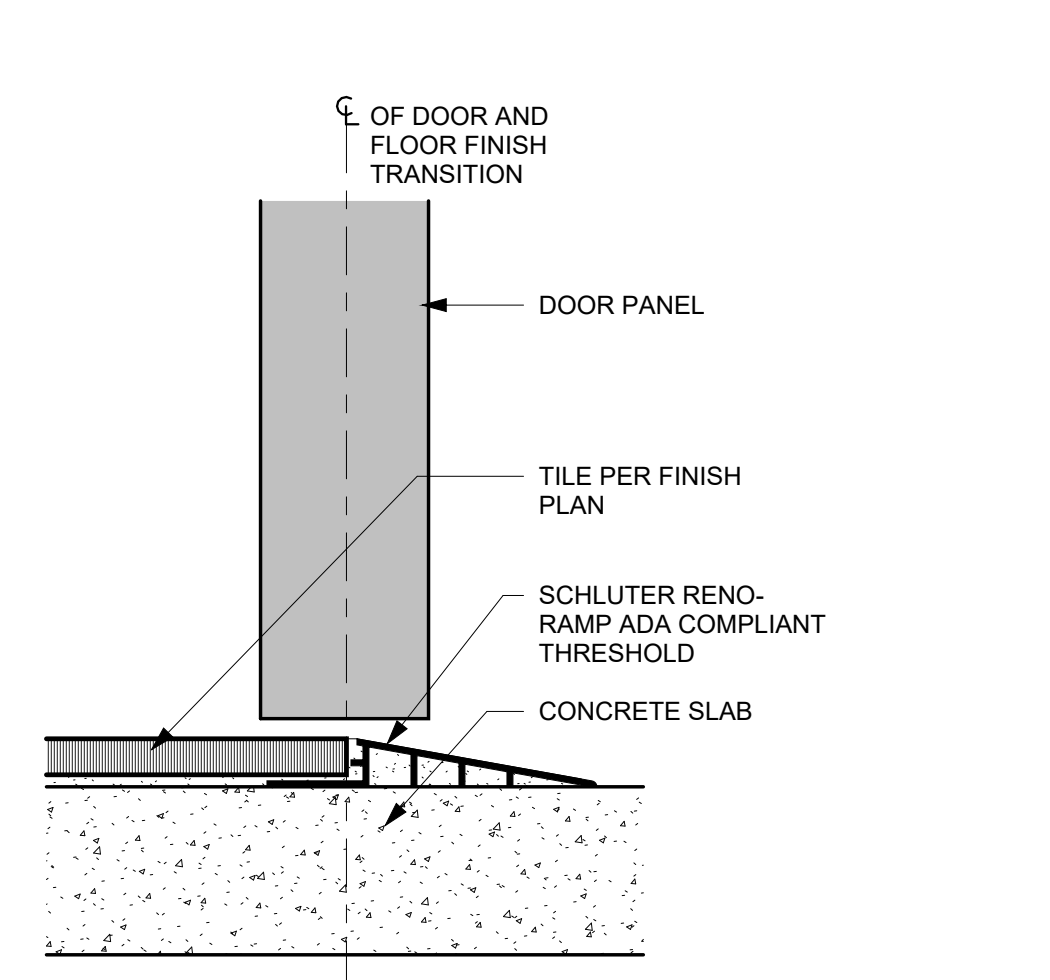
TYP. CORNER GUARD
3\"/>



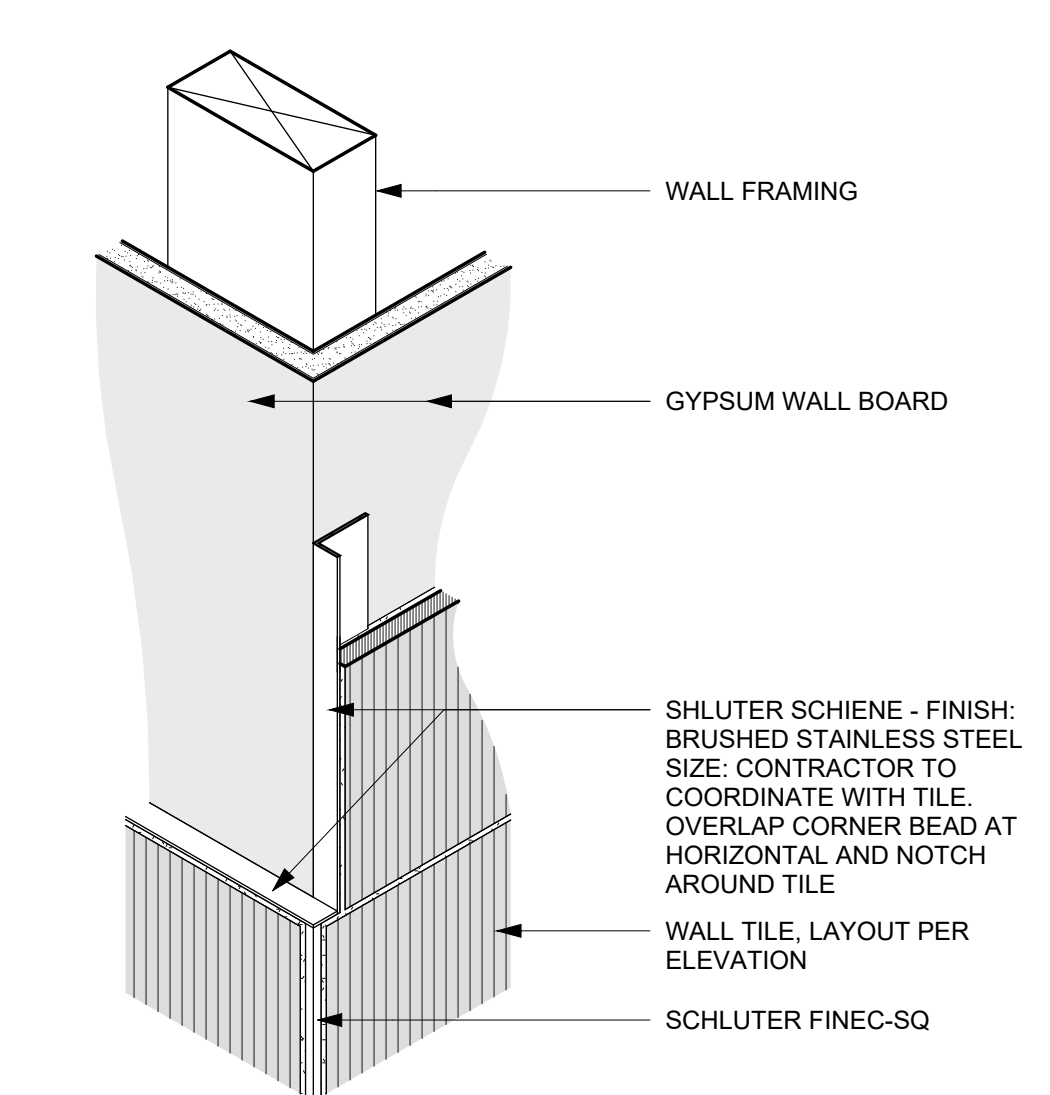
FINISHED OPENING
1 1/2\"/>



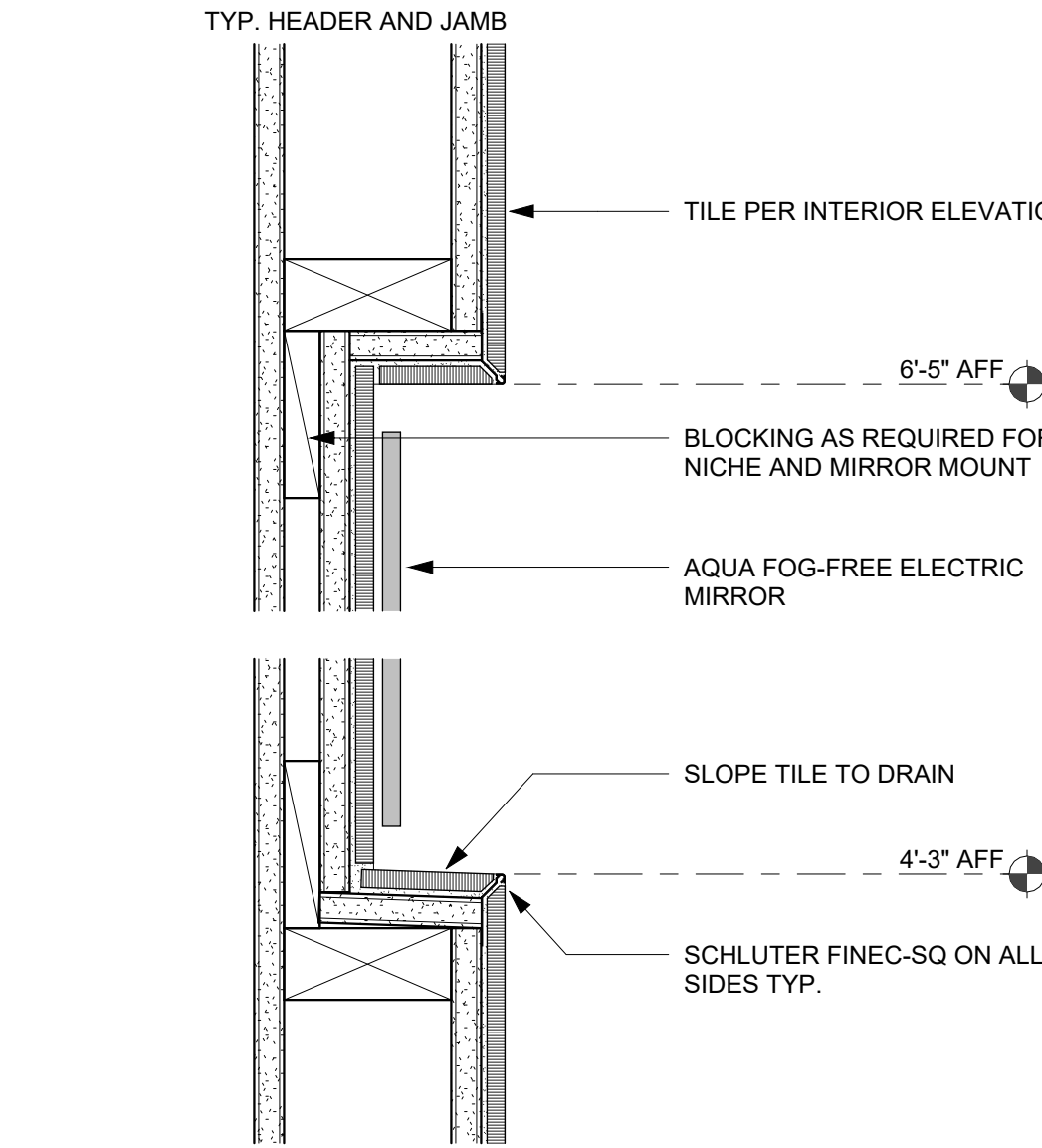
DOOR THRESHOLD
6\"/>



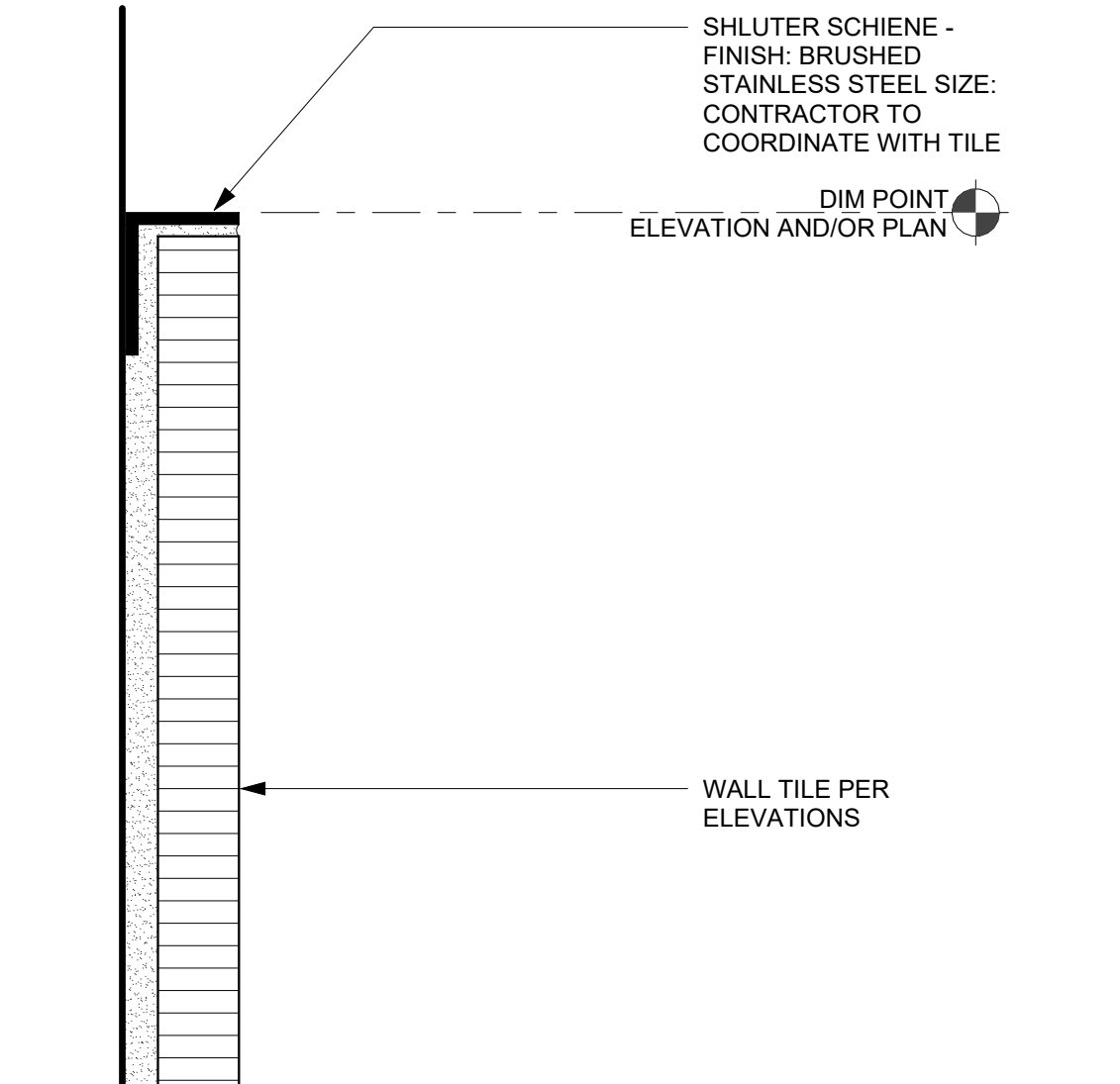
TILE THRESHOLD
6\"/>



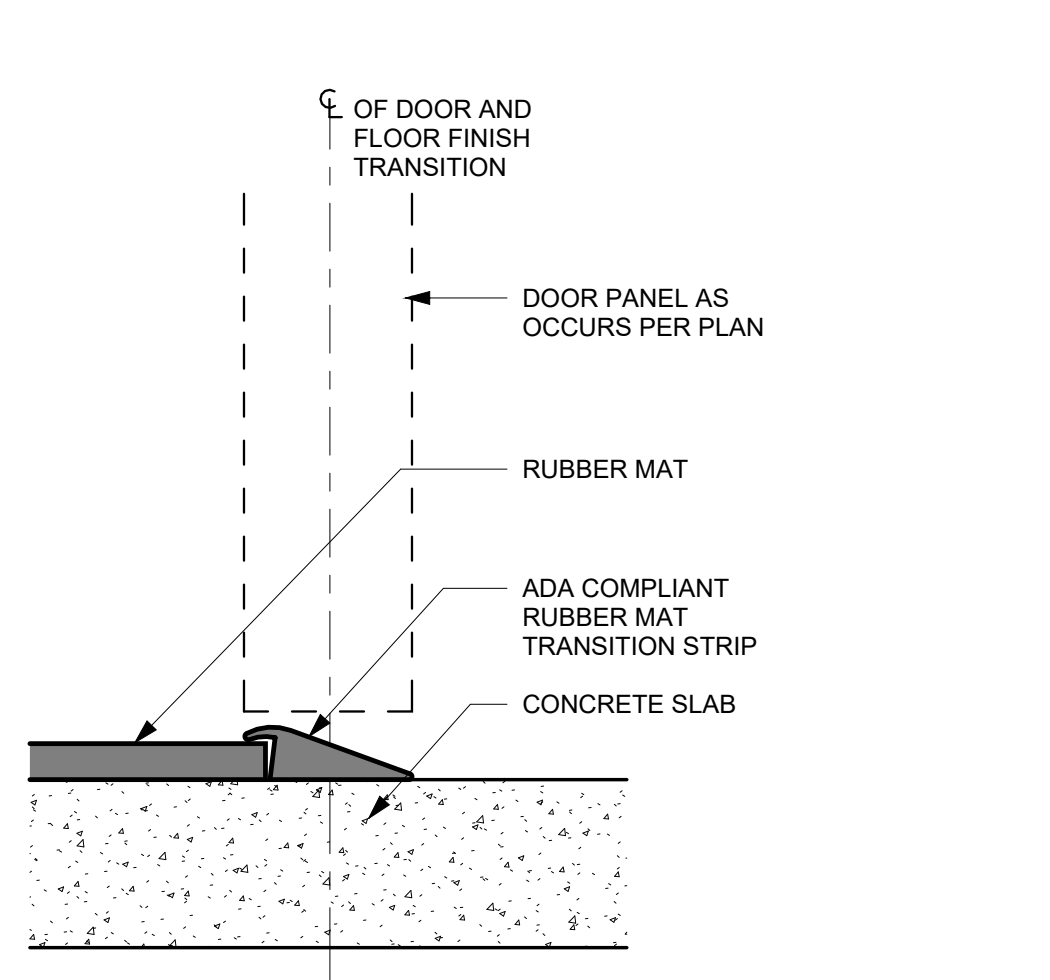
CORNER TRANSITION
3\"/>



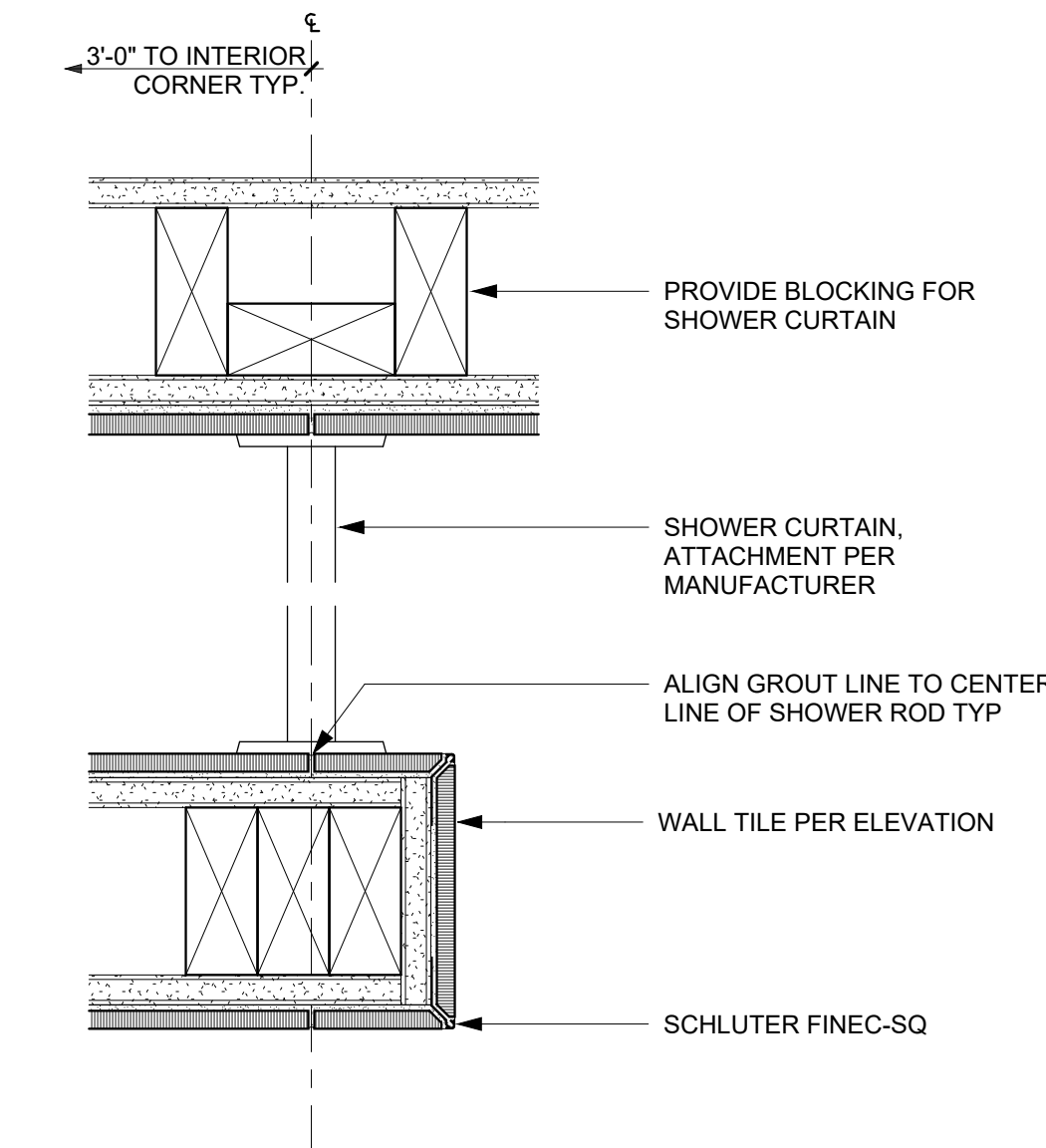
NICHE W/ MIRROR
3\"/>



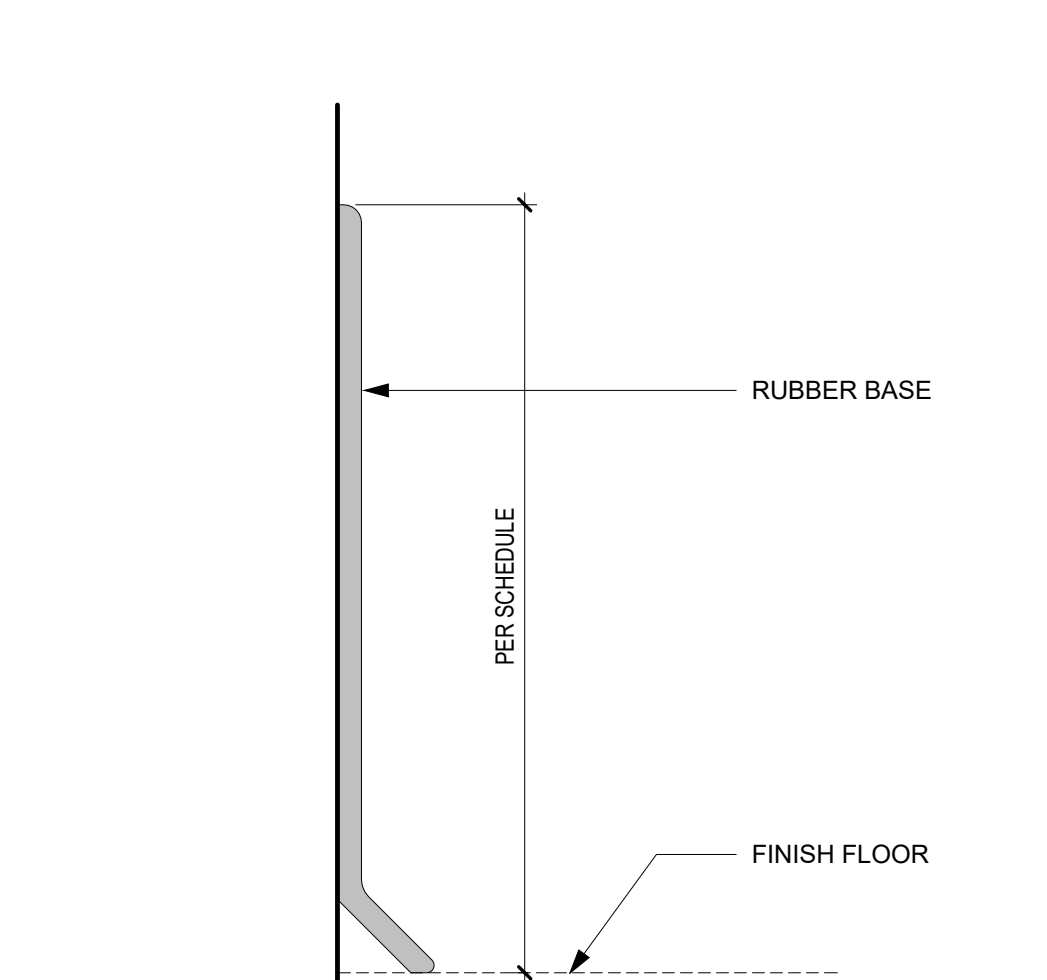
TILE TERMINATION
12\"/>



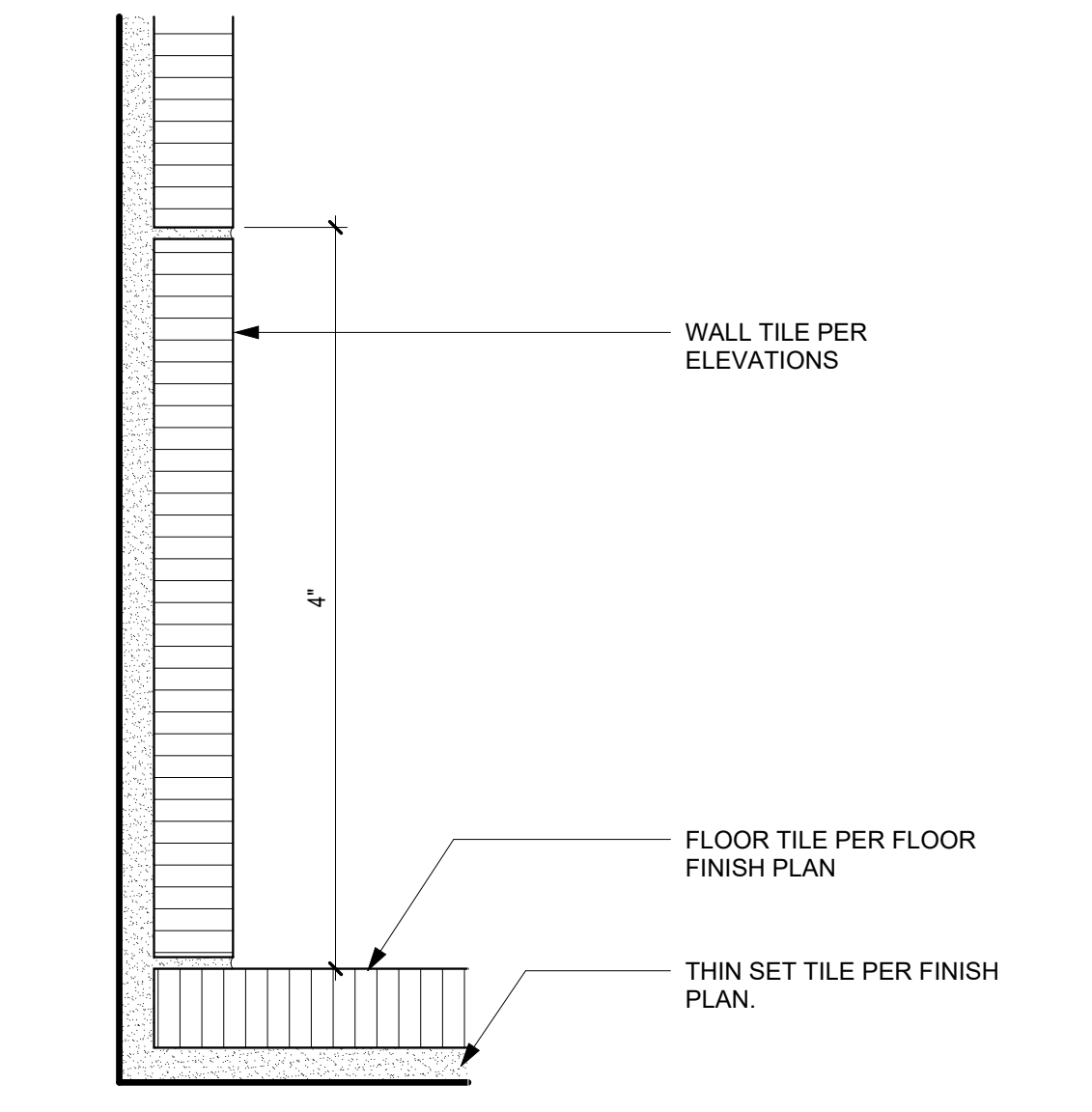
RUBBER MAT THRESHOLD
6\"/>



SHOWER CURTAIN BLOCKING
3\"/>



RUBBER WALL BASE
12\"/>



TILE WALL BASE
12\"/>

OCFA FIRE STATION #4

2 CALIFORNIA AVE
IRVINE, CA 92612

ORANGE COUNTY FIRE AUTHORITY

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1	AGENCY RESUBMITTAL #1	11/18/22

Job No. 22004
Date 04/03/23
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INTERIOR DETAILS

A9.3

ABBREVIATIONS

Table with 2 columns: Abbreviation and Description. Includes items like ANCHOR BOLT, REINFORCING BAR, FLOOR BEAM, etc.

CONCRETE MASONRY

- 1. MASONRY CONSTRUCTION SHALL COMPLY WITH ACI 530-11, "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES".
2. CONCRETE MASONRY UNITS SHALL BE GRADE N AND MEDIUM WEIGHT, CONFORMING TO ASTM C90.

CONCRETE MASONRY REINFORCING

- 1. REINFORCING STEEL SHALL BE DEFORMED STEEL CONFORMING TO THE REQUIREMENTS OF ASTM A615, (DEFORMATIONS SHALL BE IN ACCORDANCE WITH ASTM-A305) AS FOLLOWS:
2. THE ACTUAL YIELD STRENGTH, BASED ON MILL TEXT, SHALL NOT EXCEED THE SPECIFIED YIELD STRENGTH BY MORE THAN 18,000 PSI (RETESTS SHALL NOT EXCEED THIS VALUE BY MORE THAN 3,000 PSI) AND THE RATIO OF THE ACTUAL ULTIMATE TENSILE STRESS TO ACTUAL YIELD STRENGTH SHALL NOT BE LESS THAN 1.25.

CAST-IN-PLACE CONCRETE

- 1. SCHEDULE OF STRUCTURAL CONCRETE 28 DAY STRENGTHS AND TYPES: LOCATION IN STRUCTURE STRENGTH (PSI) TYPE
2. SLAB ON GRADE / FOOTINGS 4500 HARDROCK
3. CEMENT SHALL CONFORM TO ASTM C150. TYPE V CEMENT SHALL BE USED. MIX DESIGN TO BE IN ACCORDANCE WITH 2019 CBC SECTION 1904.3. W/C RATIO TO BE 0.50 OR LESS.

REINFORCING STEEL

- 1. PROVIDE REINFORCING STEEL COMPLYING WITH ASTM A615, GRADE 60. PROVIDE REINFORCING STEEL TO BE WELDED COMPLYING WITH ASTM A706, GRADE 60. FOR REINFORCING STEEL AT DUCTILE MOMENT FRAMES AND SHEARWALLS, PROVIDE REINFORCING STEEL MEETING ASTM A706 AND ACTUAL YIELD STRENGTH BASED ON MILL TESTS NOT TO EXCEED SPECIFIED YIELD BY MORE THAN 18,000 PSI AND THE RATIO OF ACTUAL ULTIMATE TENSILE STRESS TO ACTUAL YIELD TENSILE STRESS SHALL NOT BE LESS THAN 1.25.

BUILDING DESIGN INFORMATION

- 1. GENERAL DATA: ROOF LIVE LOAD = 20 psf (At < 400sf)
ROOF LIVE LOAD = 16 psf (400sf < At < 600sf)
ROOF LIVE LOAD = 12 psf (At < 600sf)
2. WIND DESIGN DATA: BASIC WIND SPEED = 110 mph (3-sec. peak gust)
WIND IMPORTANCE FACTOR I = 1.50
OCCUPANCY CATEGORY = IV
WIND EXPOSURE = B

TESTS AND INSPECTIONS - SEE SHEET S0.3 FOR SPECIAL INSPECTION REQUIREMENTS

- 1. SEE SHEET S0.3 FOR CITY OF IRVINE SPECIFIC SPECIAL INSPECTION PROGRAM.

STRUCTURAL OBSERVATION -

- 1. SEE SHEET S0.3 FOR CITY OF IRVINE SPECIFIC STRUCTURAL OBSERVATION PROGRAM.

ADDITIONAL NOTES:

- 1. The special inspections identified on plans are, in addition to, and not a substitute for, those inspections required to be performed by a City's building inspector.

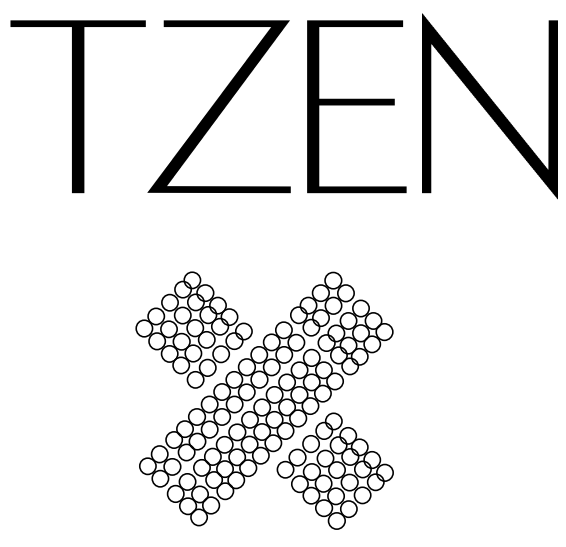
FOUNDATION

- 1. REFER TO SOIL INVESTIGATION BY: 2019 CBC MINIMUM VALUES DATED: 2019
2. ALLOWABLE SOIL PRESSURE 1,500 PSF WITH INCREASES PER GEOTECH REPORT
3. CARRY ALL FOOTINGS A MINIMUM OF 24" INTO NATURAL GRADE OR APPROVED COMPACTED FILL.

STRUCTURAL SHEET INDEX table with columns: SHEET NO, SHEET TITLE, CURRENT REVISION.

GENERAL NOTES

- 1. PERFORM CONSTRUCTION AND WORKMANSHIP IN COMPLIANCE WITH THE DRAWINGS, SPECIFICATIONS, AND THE 2019 CALIFORNIA BUILDING CODE (CBC).
2. GOVERNING CODE AUTHORITY: CITY OF SANTA ANA, CALIFORNIA.
3. THE CONTRACTOR SHALL COORDINATE THE WORK OF ALL TRADES AND VERIFY ALL DIMENSIONS PRIOR TO THE START OF CONSTRUCTION. NOTIFY THE STRUCTURAL ENGINEER OF ANY DISCREPANCIES OR INCONSISTENCIES. DO NOT SCALE DRAWINGS.



714-716-5042 sayhello@ITZEN.com

1800 N. Bristol Street #C-418 Santa Ana, CA 92705 www.ITZEN.com

CROSS ENGINEERING CONSULTING STRUCTURAL ENGINEERS 3198-G AIRPORT LOOP DRIVE COSTA MESA, CA 92626 PHONE: (714) 956-6474



OCFA FIRE STATION #4

2 CALIFORNIA AVE IRVINE, CA 92612

ORANGE COUNTY FIRE AUTHORITY

FOR PLAN REVIEW ONLY

Revision table with columns: REV, DESCRIPTION, DATE. Includes entries for Plan Check Corrections.

Job No. CE 22-123 Date 06/26/22 Drawn/Checked by CE Scale

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STRUCTURAL GENERAL NOTES

S0.1

GENERAL REQUIREMENTS - SPECIAL INSPECTIONS & STRUCTURAL OBSERVATIONS

CITY OF IRVINE COMMUNITY DEVELOPMENT Building and Safety Print Form

SPECIAL INSPECTION PROGRAM SUMMARY

BUILDING ADDRESS
2 California Ave, Irvine, CA 92612

PROJECT DESCRIPTION
Remodel of an existing Fire Station - OCFA Station 4

PLAN CHECK NUMBER
00886555-CTIS_00886257-TMPI

I, as the owner, or agent of the owner (contractors may not employ the special inspector), certify that I, or the architect/engineer of record, will be responsible for employing the special inspector(s) as required by Uniform Building Code (UBC) Section 1701.1 for the construction project located at the site listed above. UBC Section 106.3.5.

SIGNED Julie Samaniego DATE 11/21/22
PRINT NAME Julie Samaniego OWNER ENGINEER ARCHITECT
FIRM ORANGE COUNTY FIRE AUTHORITY

I, as the engineer/architect of record, certify that I have prepared the following special inspection program as required by UBC Section 106.3.5 for the construction project located at the site listed above.

Kirk D. Cross ENGINEER'S/ARCHITECT'S SEAL & SIGNATURE HERE DATE 11/17/2022
SIGNED
FIRM CROSS ENGINEERING PHONE 714-556-5475

1. LIST OF WORK REQUIRING SPECIAL INSPECTION

<input checked="" type="checkbox"/> CONCRETE	<input checked="" type="checkbox"/> HIGH-STRENGTH BOLTING	<input checked="" type="checkbox"/> STRUCTURAL WELDING
<input checked="" type="checkbox"/> BOLTS IN CONCRETE AND EPOXY INSTALLATION	<input checked="" type="checkbox"/> STRUCTURAL MASONRY	<input type="checkbox"/> INSULATING CONCRETE FILL OR REINFORCED GYPSUM CONCRETE
<input type="checkbox"/> SPECIAL-MOMENT RESISTING FRAME	<input type="checkbox"/> SPRAY-APPLIED FIREPROOFING	<input type="checkbox"/> OTHER:
<input checked="" type="checkbox"/> REINFORCING STEEL	<input type="checkbox"/> SHOTCRETE	
<input type="checkbox"/> PRESTRESSED CONCRETE		
<input type="checkbox"/> PILING AND DRILLED PIERS		
<input type="checkbox"/> SMOKE-CONTROL SYSTEM		

2. NAME(S) OF INDIVIDUAL(S) OR FIRM(S) RESPONSIBLE FOR THE SPECIAL INSPECTIONS LISTED ABOVE:

A. DEPUTY SPECIAL INSPECTIONS IRVINE 949-616-8287
B. R.P.I. DEPUTY INSPECTIONS, INC. 949-291-3912
C. METZGER TESTING & INSPECTION

3. DUTIES OF THE SPECIAL INSPECTORS FOR THE WORK LISTED ABOVE: (Attach additional sheets as necessary)

A. SAMPLE COMPRESSIVE SLUMP TEST AND INSPECT PLACEMENT OF CONCRETE OF 3,000 PSI OR GREATER
B. PLACEMENT, SIZE AND GRADE OF REINFORCING BARS PRIOR TO POUR. CONT. INSPECTION OF MASONRY WALLS
C. INSPECT ALL FIELD WELDING, INSPECT ALL CAST-IN AND EPOXY ANCHORS OR REBAR DOWELS

Special Inspectors shall notify the City of Irvine Building and Safety Division at 949-724-6331 and present their credentials for approval prior to beginning work on the job site.

FORM 65-09 REV 04/13

CITY OF IRVINE COMMUNITY DEVELOPMENT Building and Safety Print Form

STRUCTURAL OBSERVATION PROGRAM

PROJECT ADDRESS
2 California Ave., Irvine, CA 92612

PERMIT APPLICATION NUMBER
00886555-CTIS_00886257-TMPL

DESCRIPTION OF WORK
Remodel of an existing Fire Station - OCFA Station 4

OWNER
ORANGE COUNTY FIRE AUTHORITY

ARCHITECT
Jana SB Itzen

ENGINEER
Kirk D. Cross, S.E.

STRUCTURAL OBSERVATION (ONLY CHECKED ITEMS ARE REQUIRED)
FIRM OR INDIVIDUAL TO BE RESPONSIBLE FOR THE STRUCTURAL OBSERVATION
Cross Engineering; Kirk D. Cross

NAME	PHONE	CALIFORNIA REGISTRATION
Kirk D. Cross	(714) 556-5475	S 3886

FOUNDATION	WALL	FRAME	DIAPHRAGM
<input checked="" type="checkbox"/> FOOTING, STEM WALLS, PIERS	<input type="checkbox"/> CONCRETE	<input type="checkbox"/> STEEL MOMENT FRAME	<input type="checkbox"/> CONCRETE
<input type="checkbox"/> MAT FOUNDATION	<input type="checkbox"/> MASONRY	<input type="checkbox"/> STEEL BRACED FRAME	<input type="checkbox"/> STEEL DECK
<input type="checkbox"/> CAISSON, PILES, GRADE BEAM	<input type="checkbox"/> WOOD	<input type="checkbox"/> CONCRETE MOMENT FRAME	<input type="checkbox"/> WOOD
<input type="checkbox"/> STEPPING/RETAINING FOUNDATION	<input type="checkbox"/> OTHER:	<input type="checkbox"/> MASONRY WALL FRAME	<input type="checkbox"/> OTHER:
<input checked="" type="checkbox"/> OTHER: Masonry Trellis Columns		<input type="checkbox"/> OTHER:	

THIS PROJECT IS STRUCTURALLY REPETITIVE IN THE FOLLOWING MANNER:

DUE TO THE REPETITIVE NATURE DESCRIBED ABOVE AND SUBJECT TO THE CONDITIONS OF THE CITY OF IRVINE INFORMATIONAL BULLETIN NO. 251, STRUCTURAL OBSERVATION WILL BE PERFORMED AS FOLLOWS:

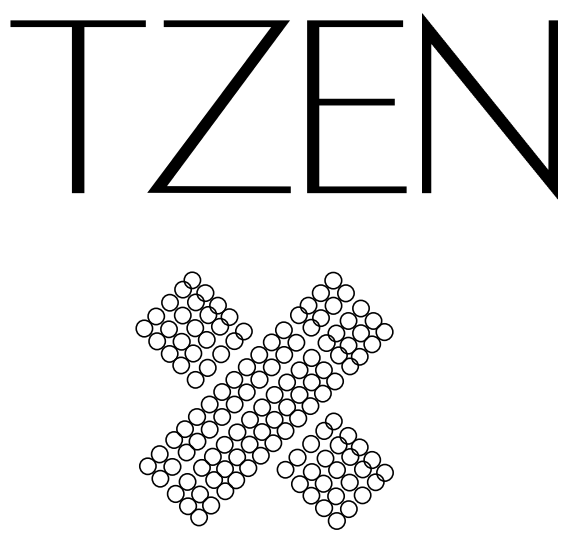
DECLARATION BY OWNER: I, THE OWNER OF THE PROJECT, DECLARE THAT THE ABOVE LISTED FIRM OR INDIVIDUAL IS HIRED BY ME TO BE THE STRUCTURAL OBSERVER.

SIGNED Julie Samaniego DATE 11/21/22
SIGNATURE DATE

ONLY COMPLETE IF DEFERRING SELECTION: IN CONSIDERATION OF DEFERRING THE SELECTION OF THE STRUCTURAL OBSERVER, THE OWNER ACKNOWLEDGES THAT THE PROJECT CAN NOT COMMENCE UNTIL SUCH SELECTION IS MADE AND DOCUMENTED ON A SUPPLEMENTAL CITY OF IRVINE STRUCTURAL OBSERVATION PROGRAM FORM PROVIDED TO THE CITY INSPECTOR AT OR BEFORE THE PRE-CONSTRUCTION MEETING, WHICH SHALL BE ATTENDED BY THE SELECTED STRUCTURAL OBSERVER.

SIGNATURE DATE

FORM 40-83 REV 1/16



714-716-5042 sayhello@ITZEN.com
mailing: 1800 N. Bristol Street #C-418 Santa Ana CA 92706 www.ITZEN.com

CROSS ENGINEERING
CONSULTING STRUCTURAL ENGINEERS
3198-G AIRPORT LOOP DRIVE
COSTA MESA, CA 92626
PHONE: (714) 556-5475



OCFA FIRE STATION #4

2 CALIFORNIA AVE
IRVINE, CA 92612

ORANGE COUNTY FIRE AUTHORITY

FOR PLAN REVIEW ONLY

REV	DESCRIPTION	DATE
1	Plan Check Corrections	11/18/22

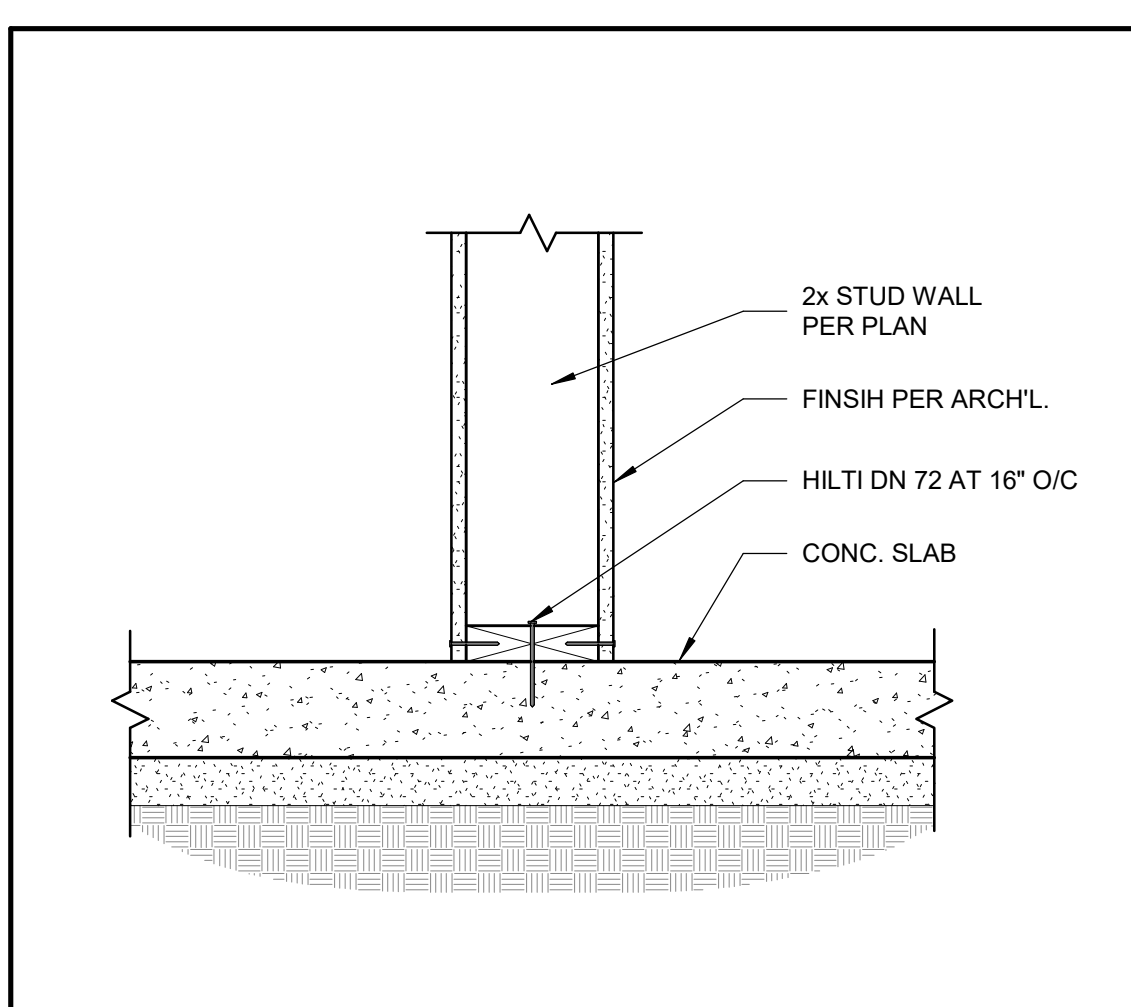
Job No. CE 22-123
Date 08/26/22
Drawn/Checked by CE
Scale

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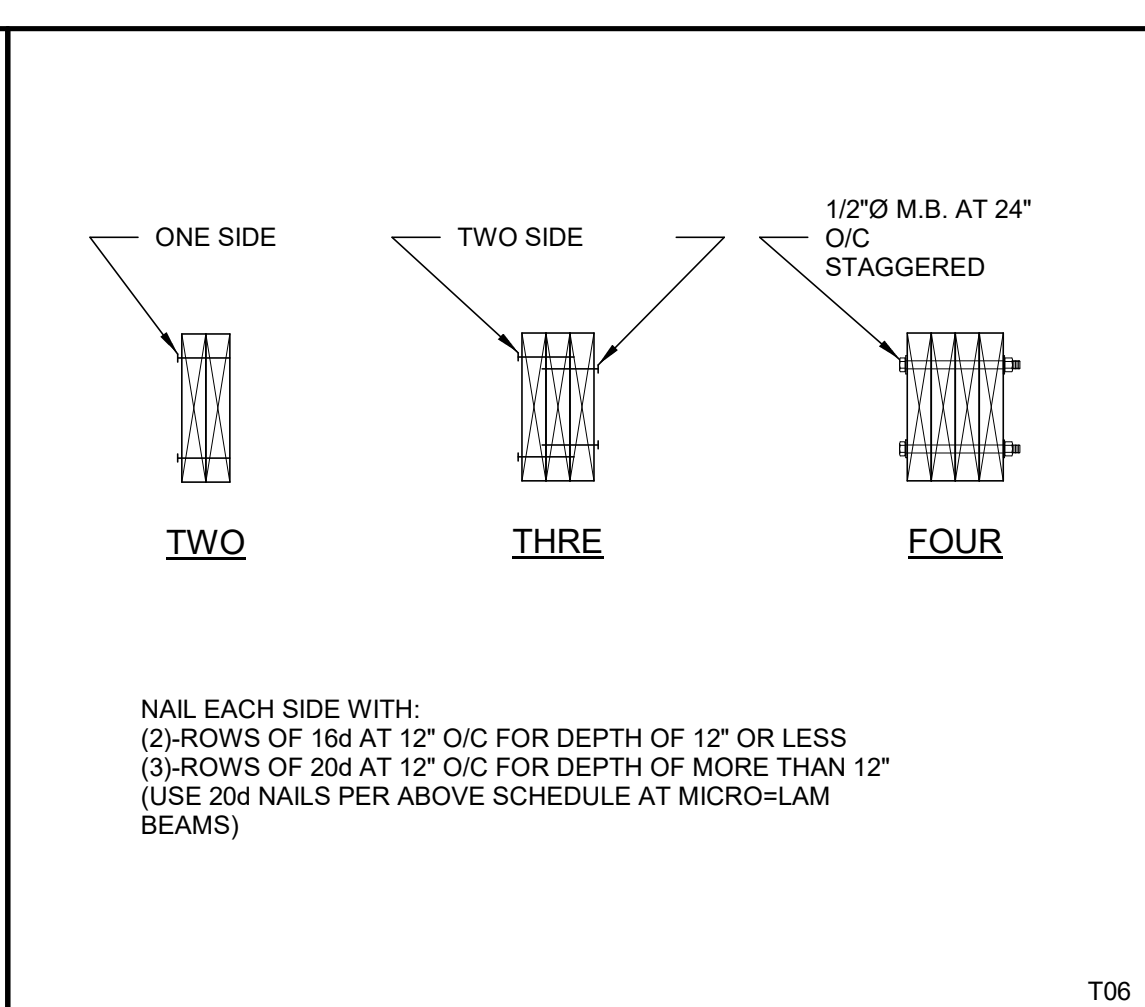
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STRUCTURAL GENERAL NOTES

S0.3



Non-Bearing Wall to SOG SCALE: 1" = 1'-0" **16**



Multiple Members SCALE: 1" = 1'-0" **11**

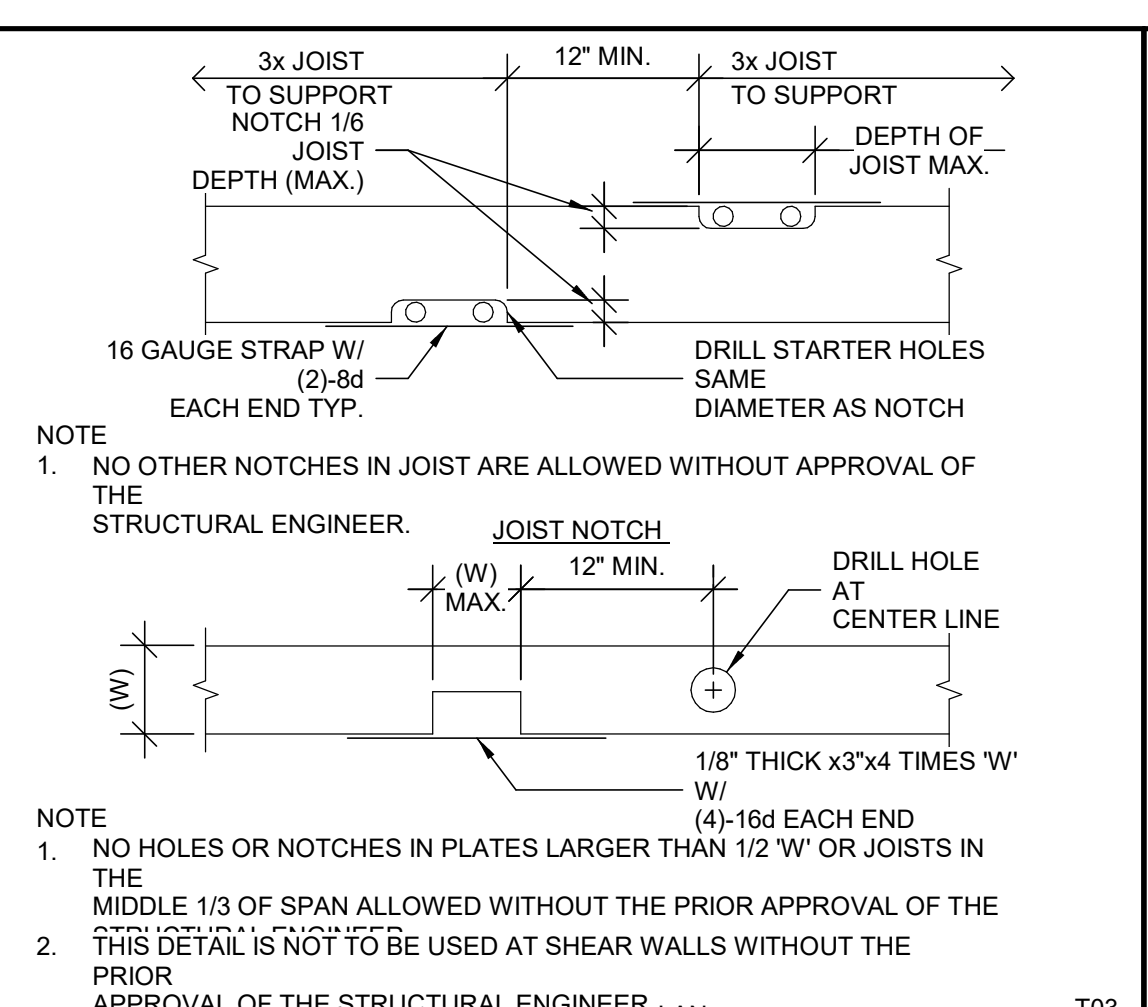
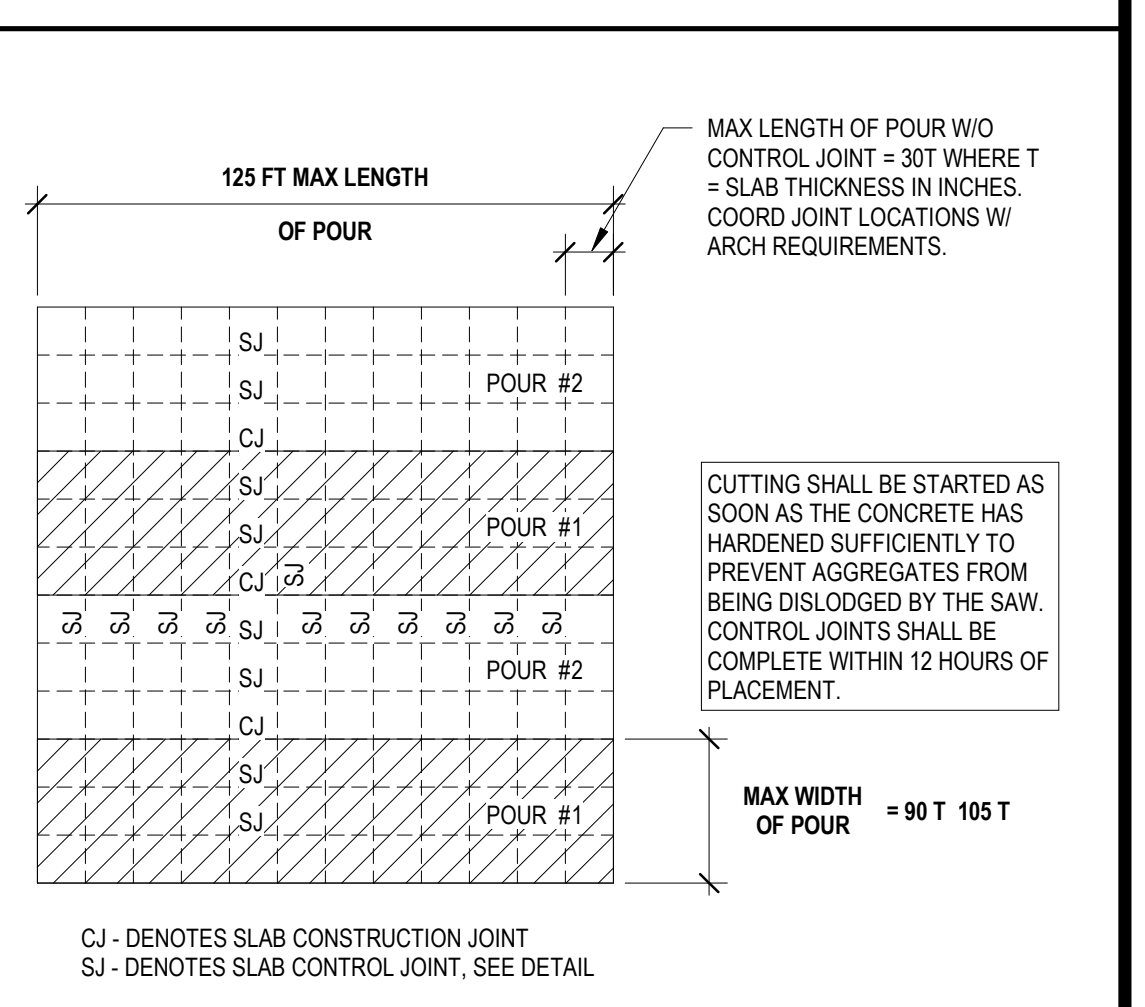
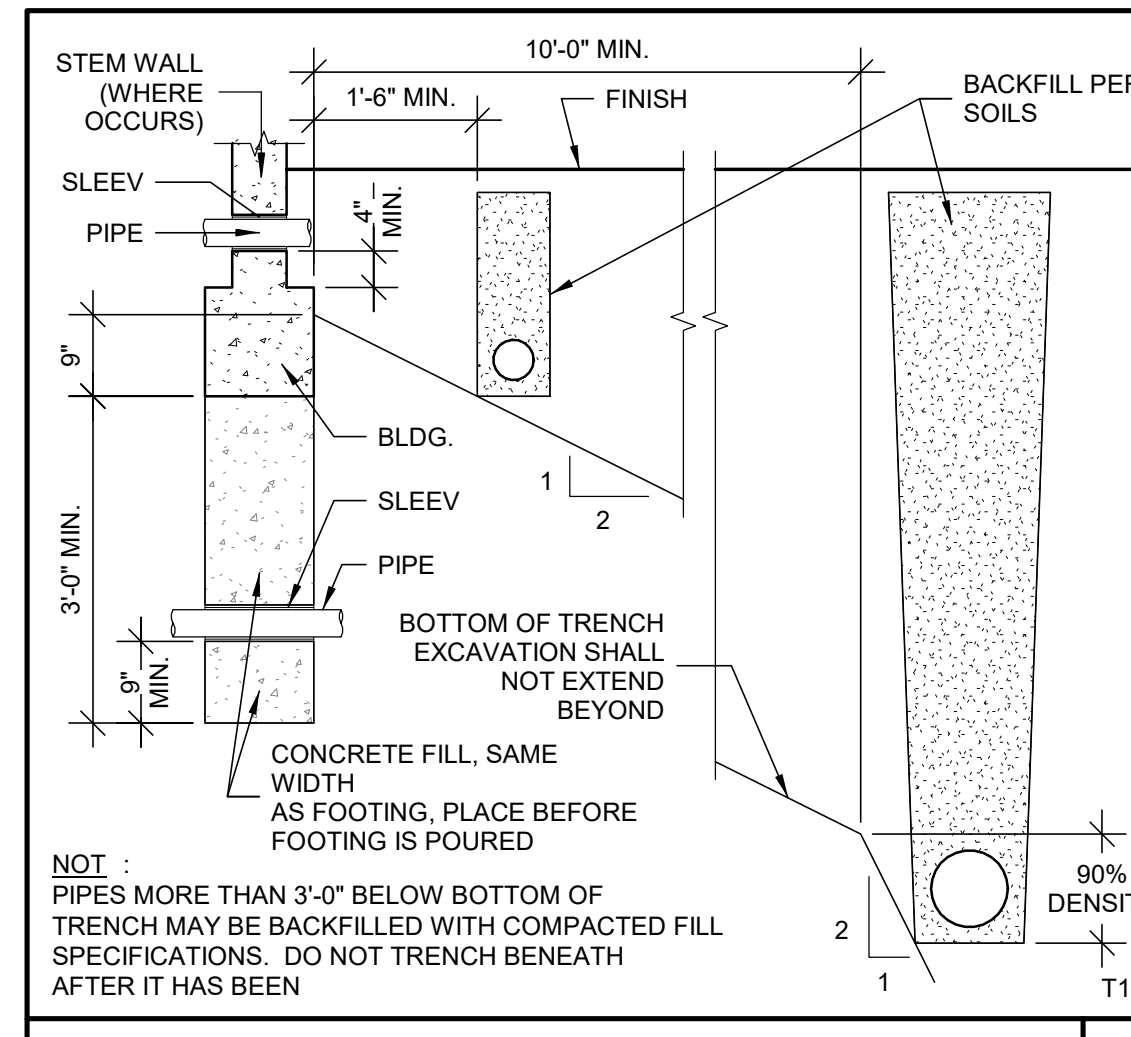


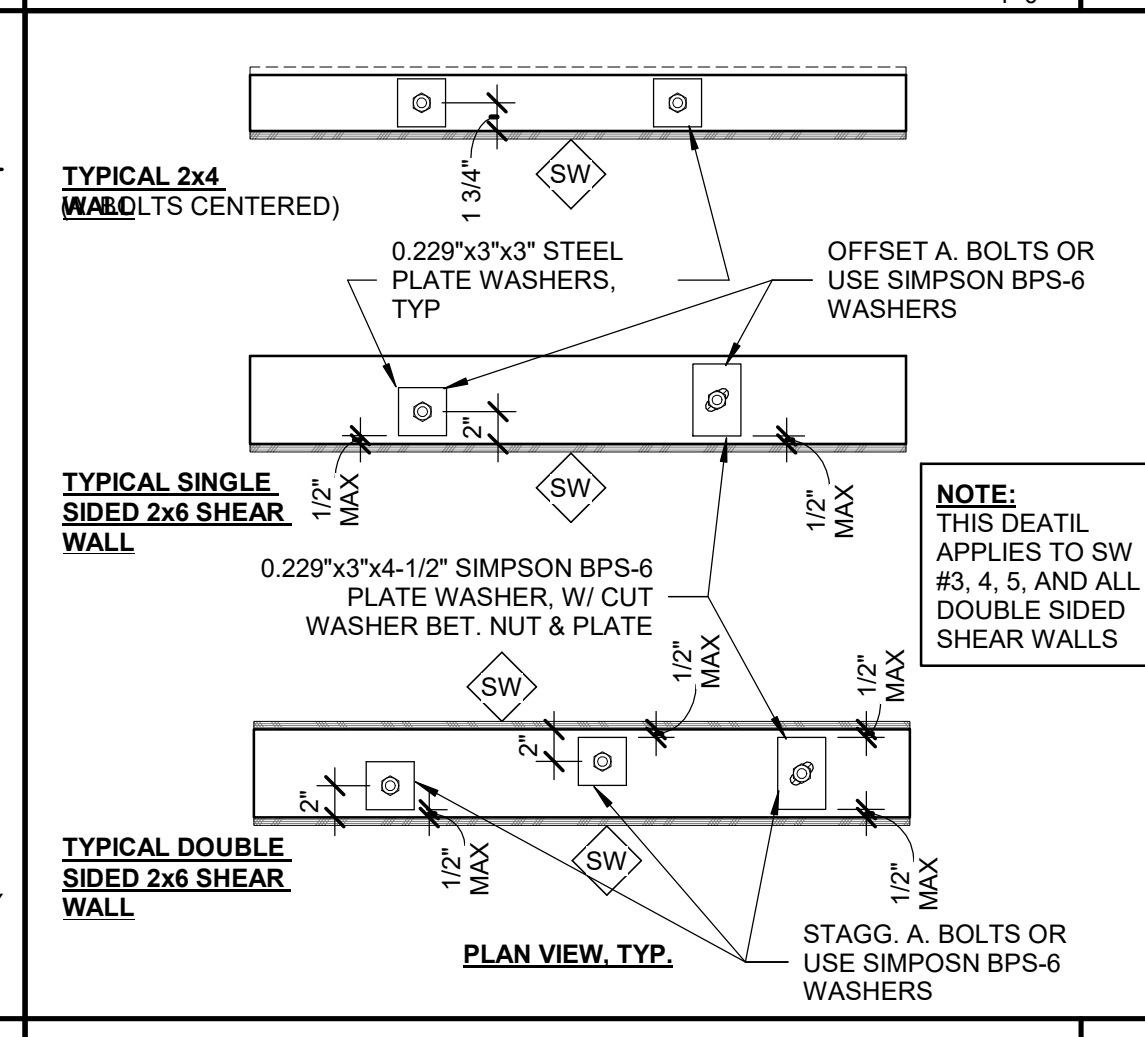
Plate & Joist Notching SCALE: 1" = 1'-0" **7**



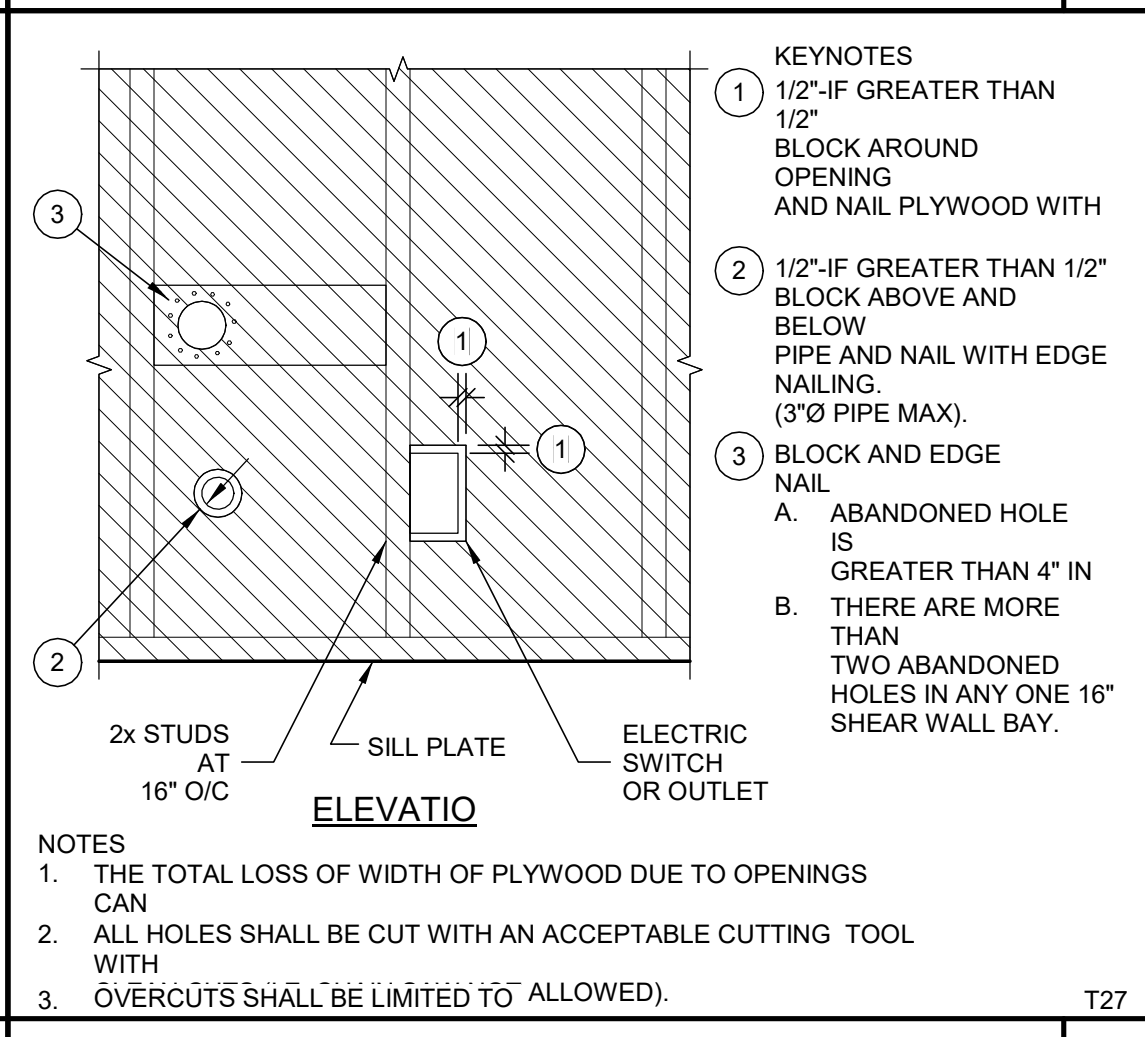
SLAB JOINTS SCALE: 3/4" = 1'-0" **4**



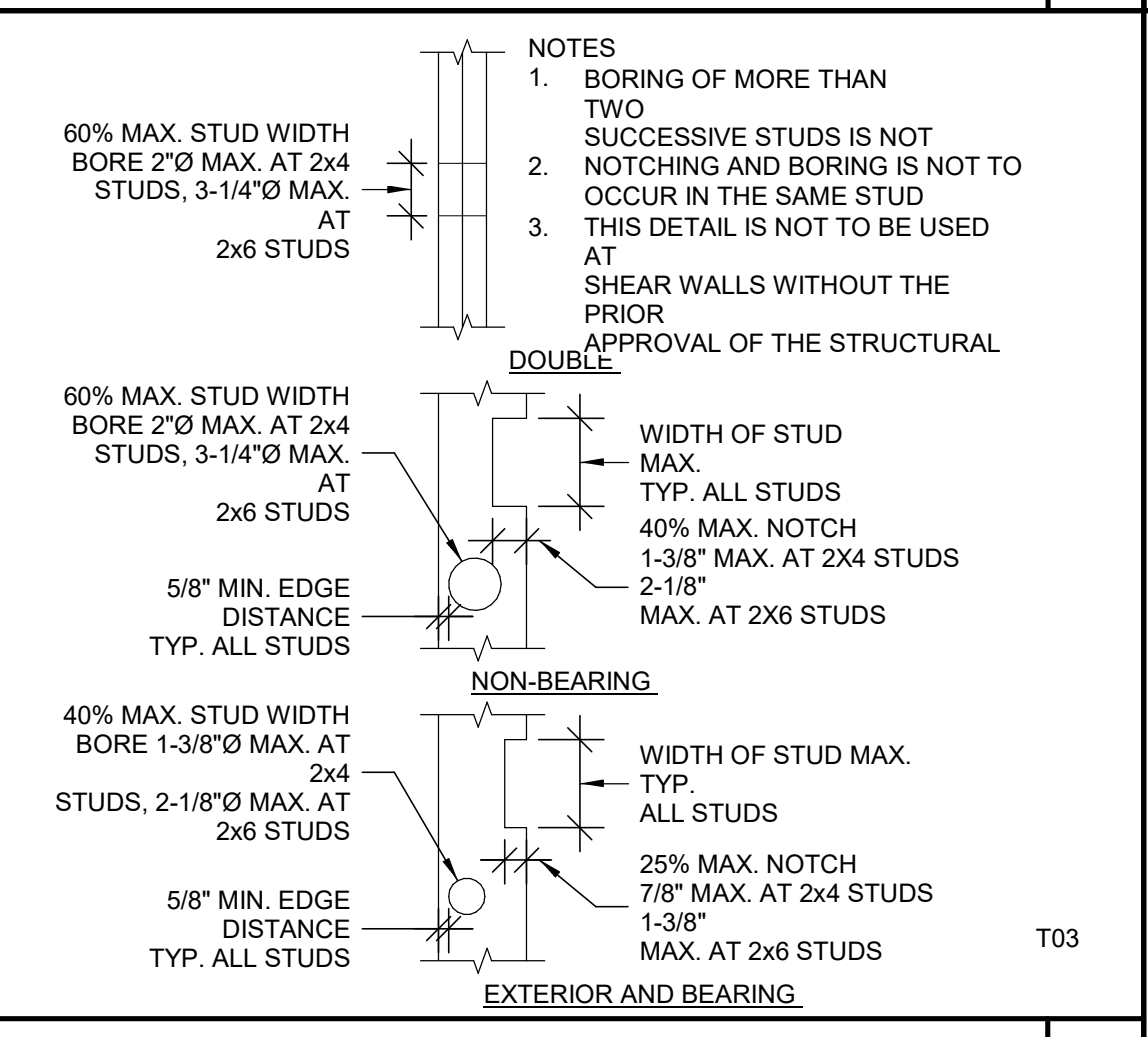
Pipe Trench at Footing SCALE: 1" = 1'-0" **25**



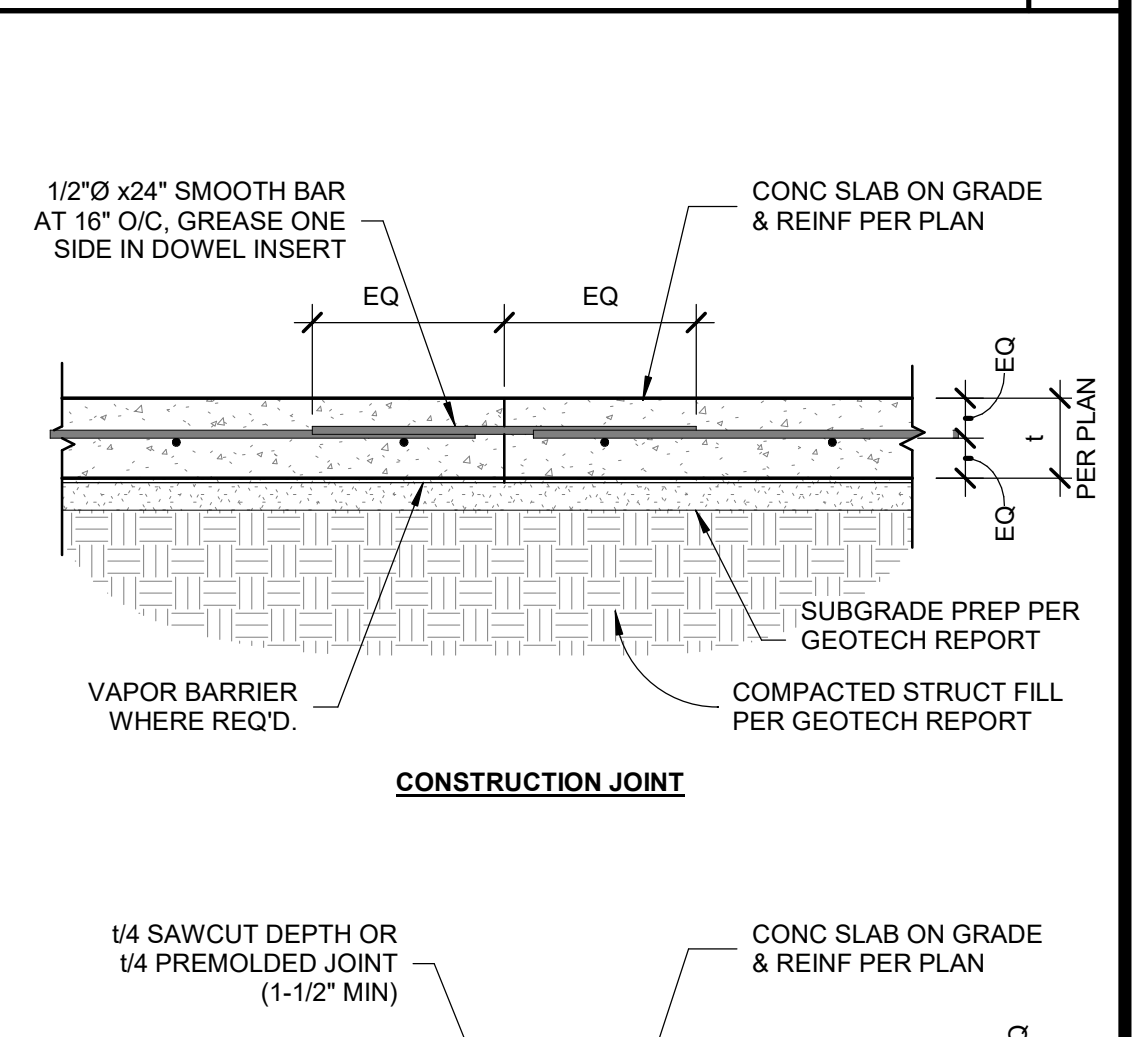
SW Sill Plate Washers SCALE: 1" = 1'-0" **15**



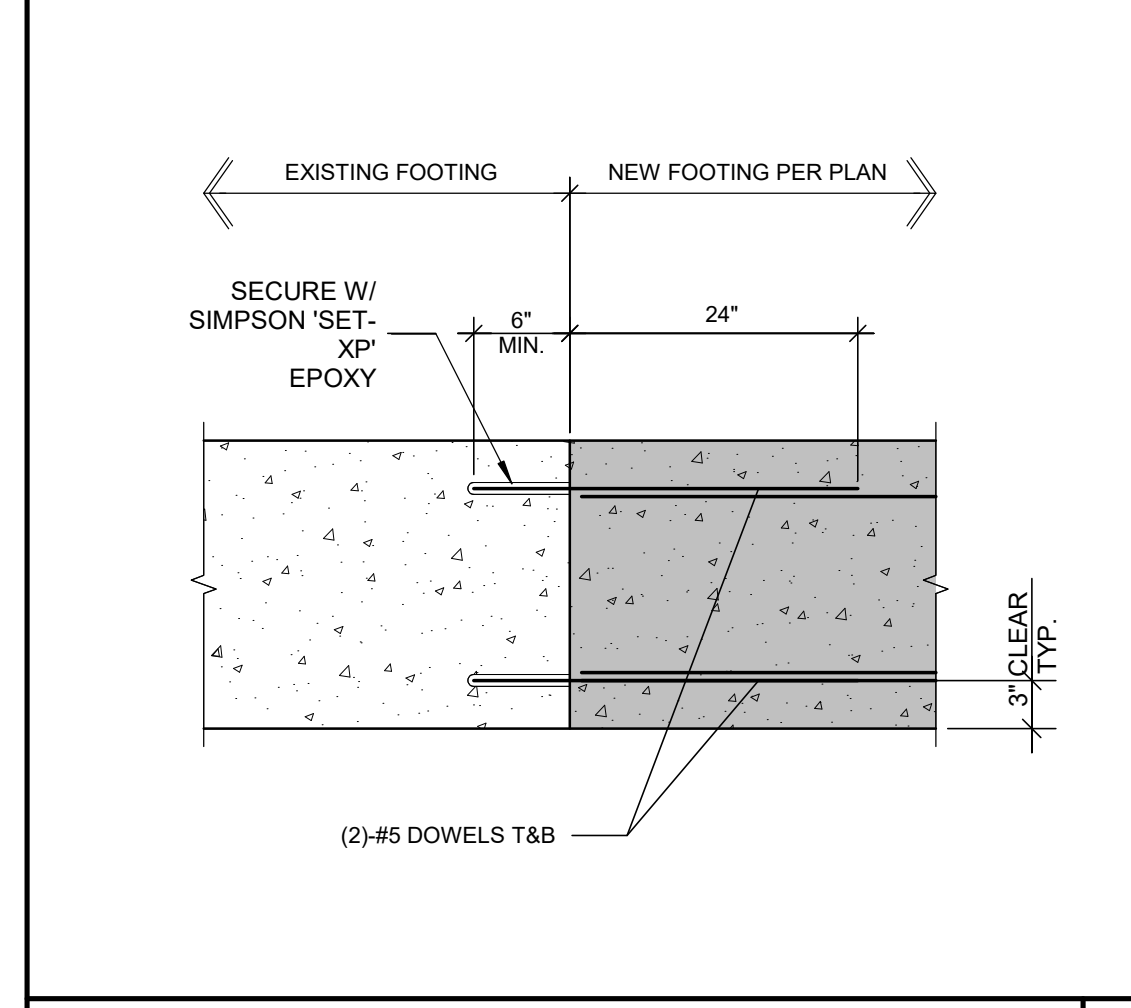
Opening in Shear Wall SCALE: 1" = 1'-0" **10**



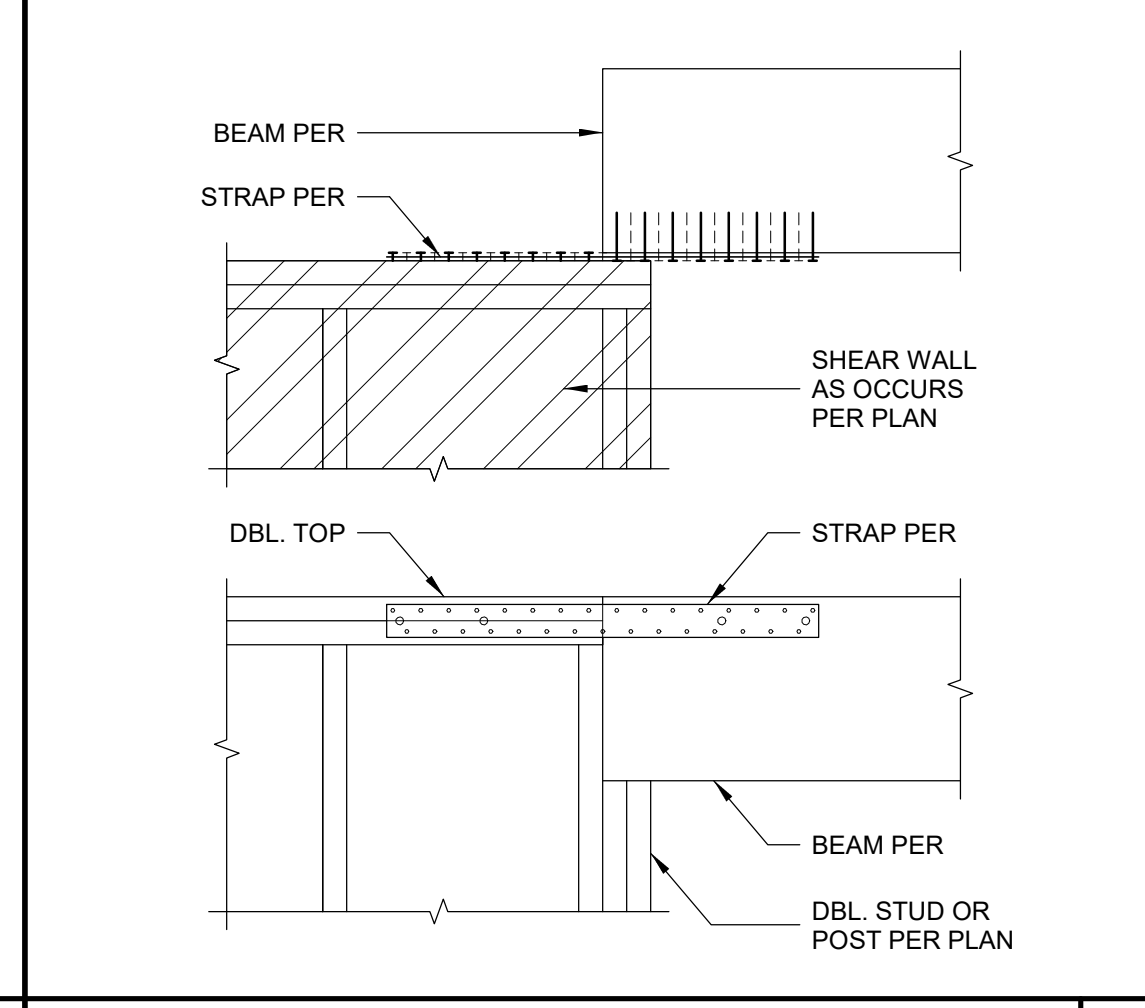
Stud Notching SCALE: 1" = 1'-0" **6**



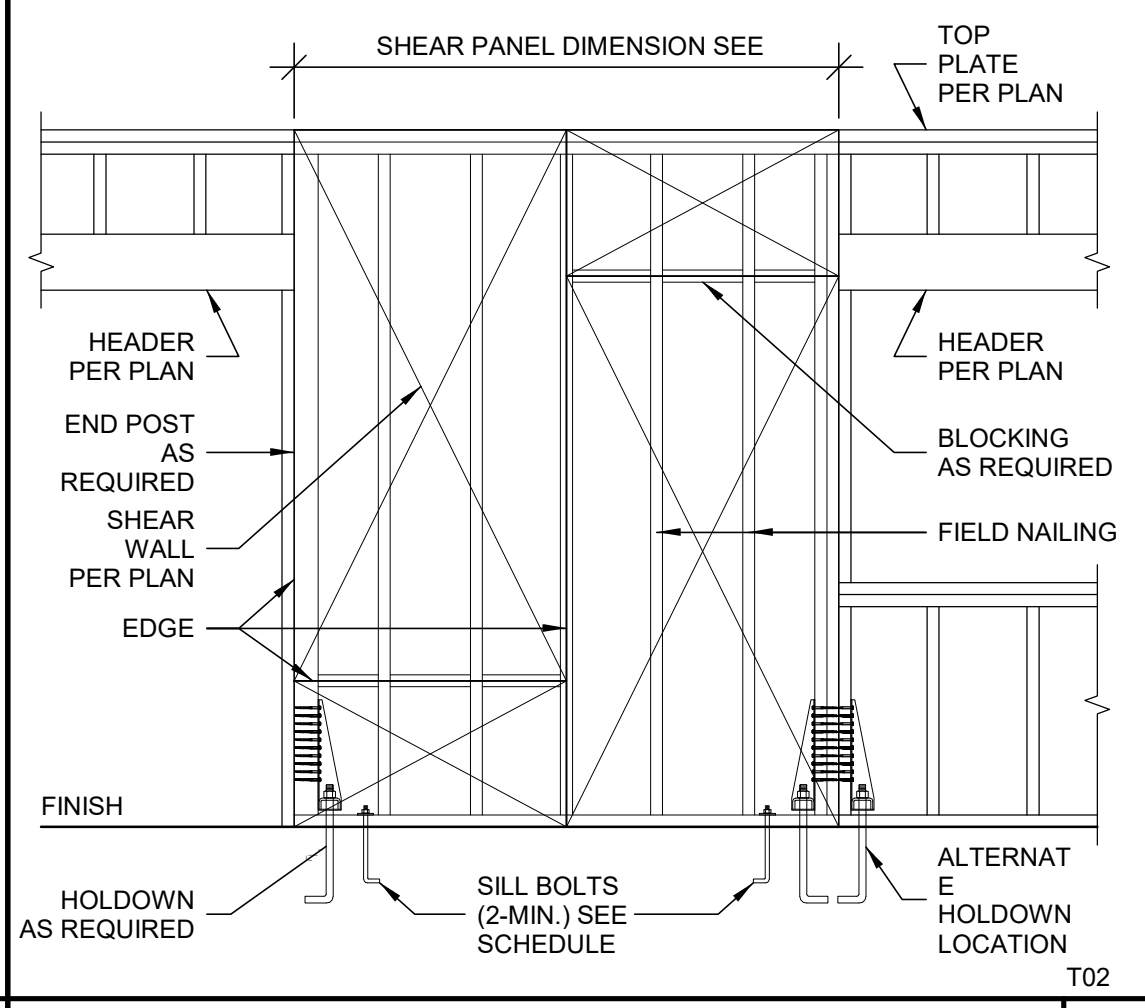
CONSTRUCTION JOINT



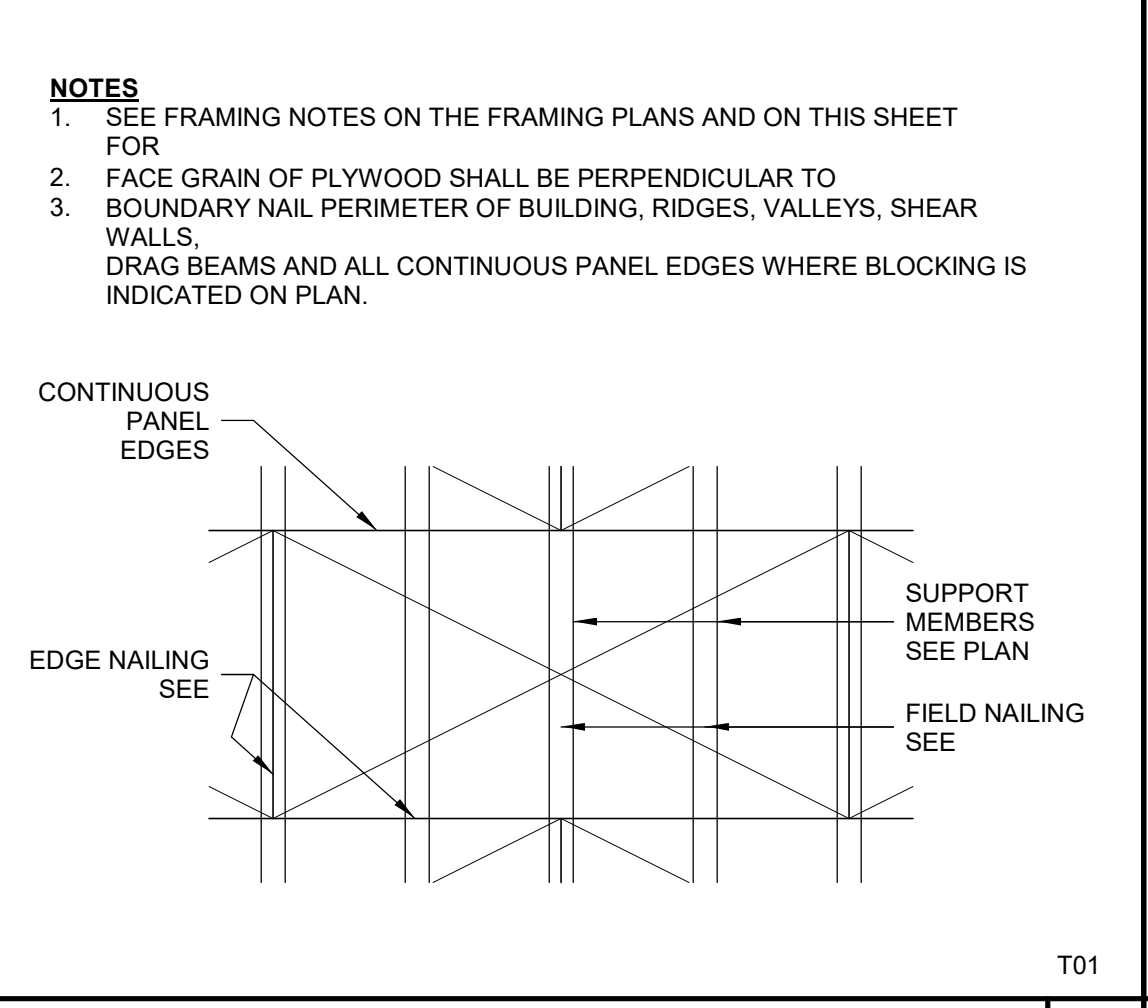
Footing New to Existing SCALE: 1" = 1'-0" **24**



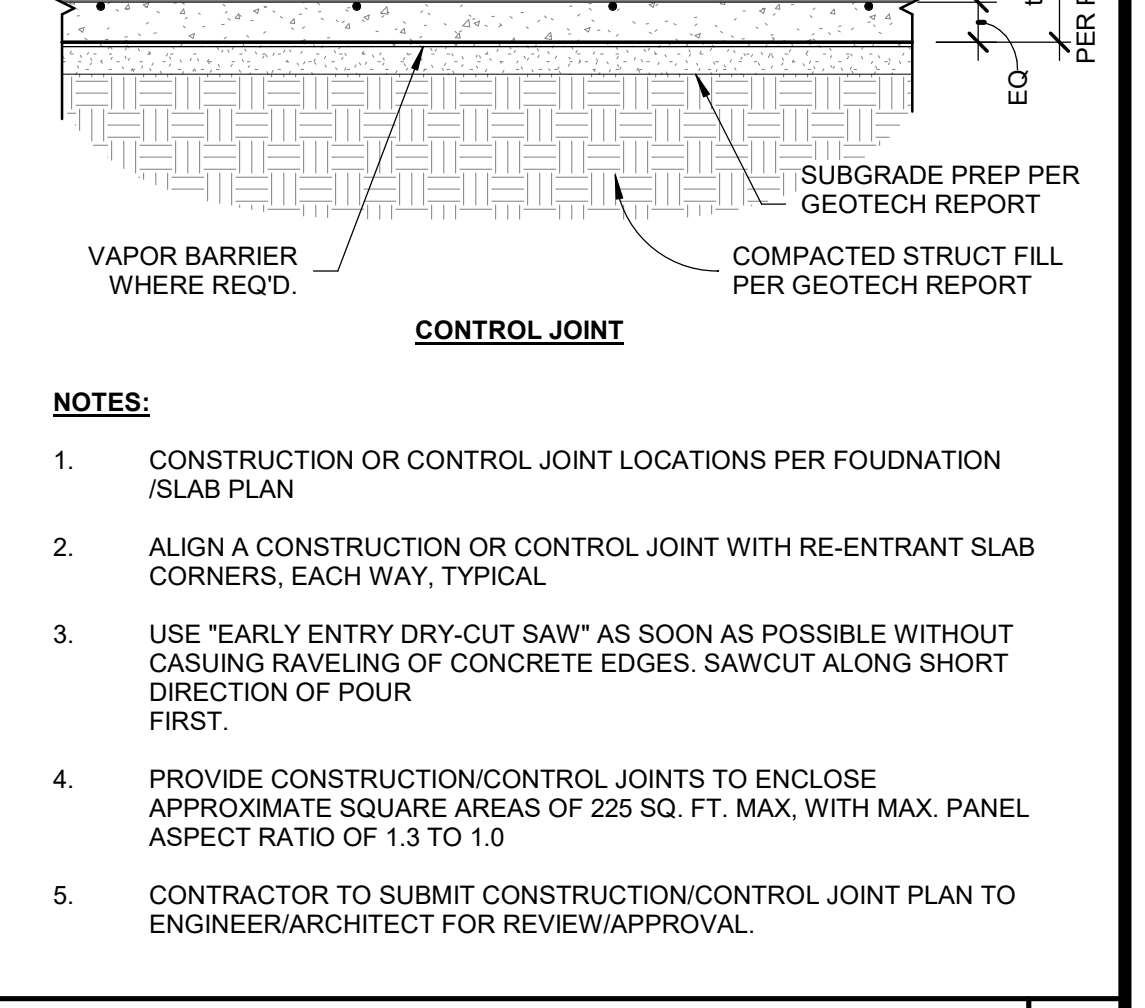
Drag Strap SCALE: 1" = 1'-0" **14**



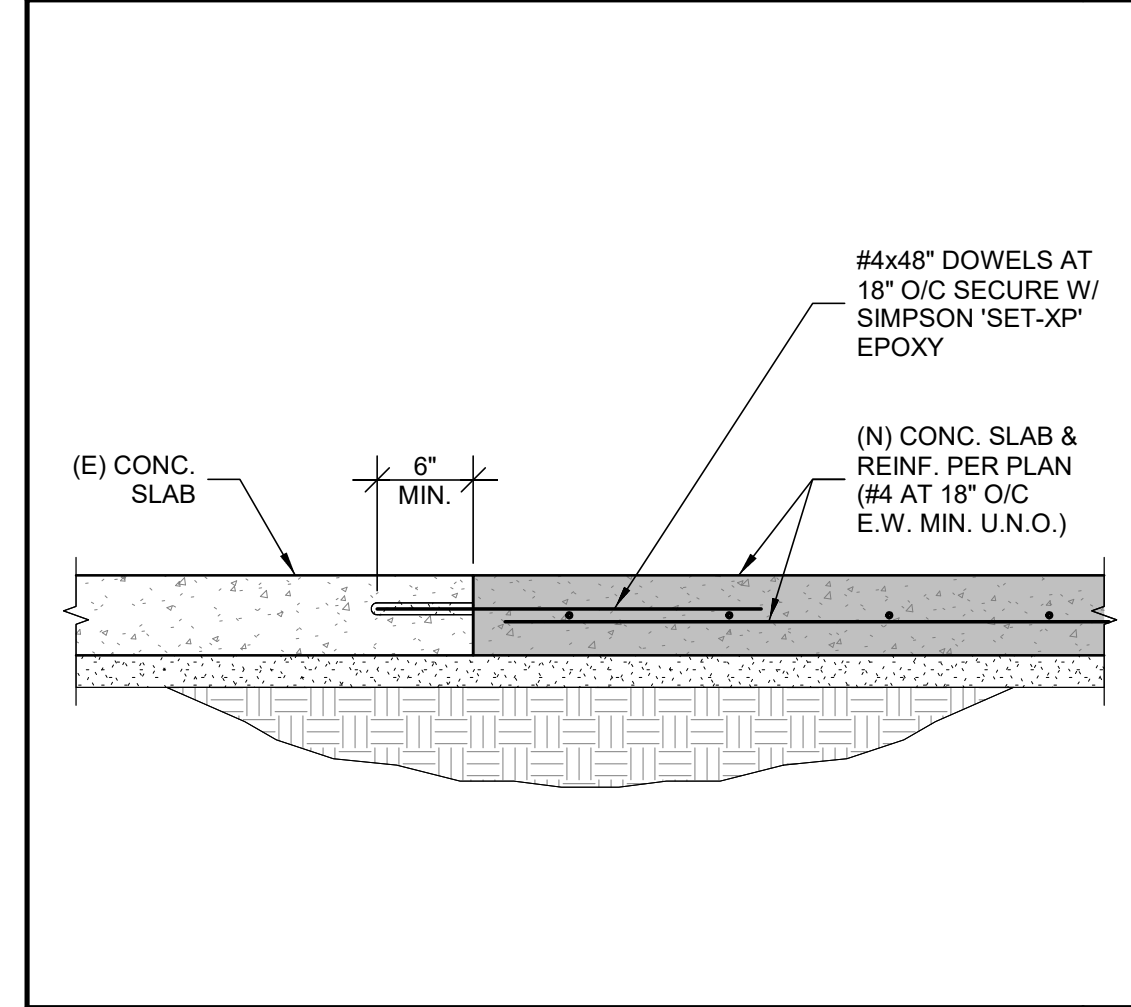
Shear Wall Framing SCALE: 1" = 1'-0" **9**



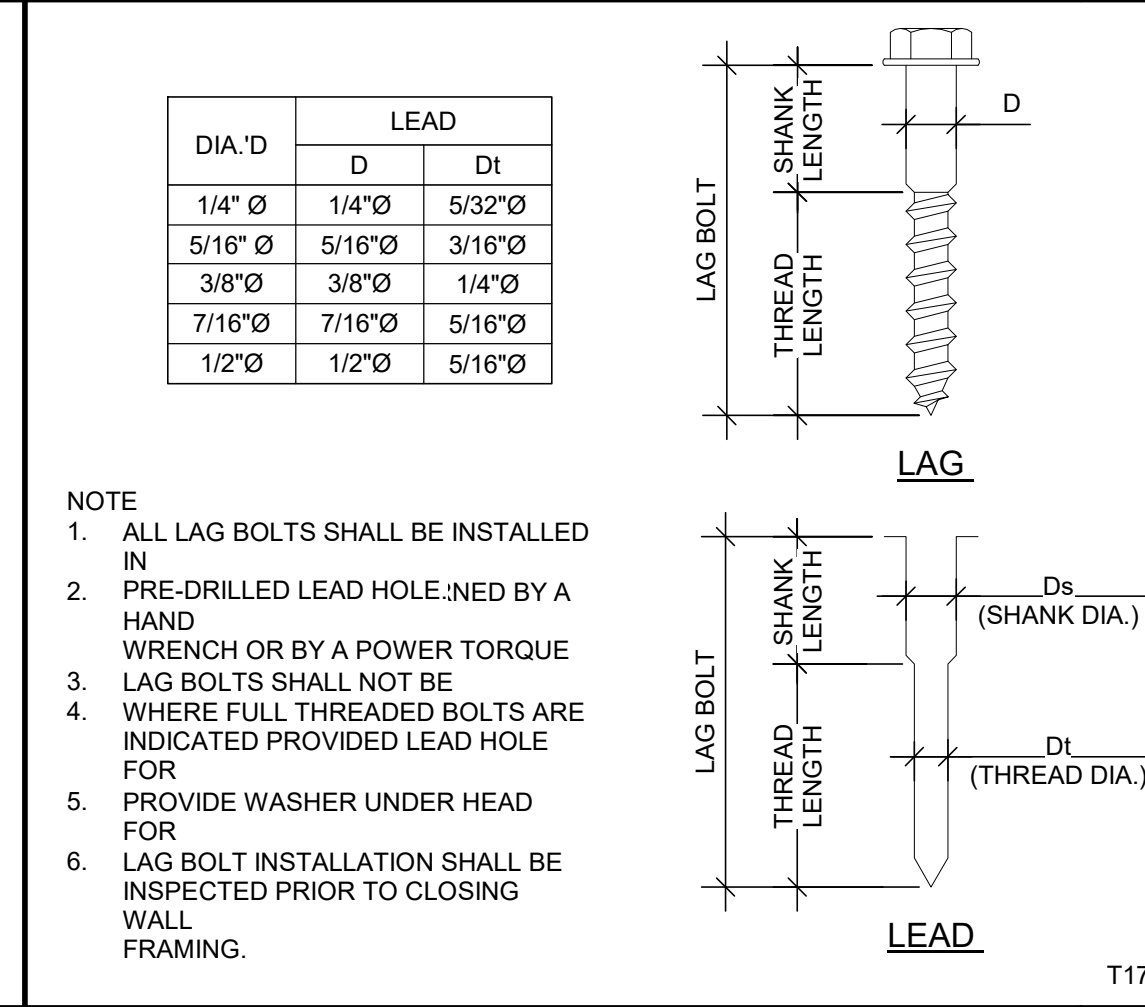
Sheathing Layout SCALE: 1" = 1'-0" **5**



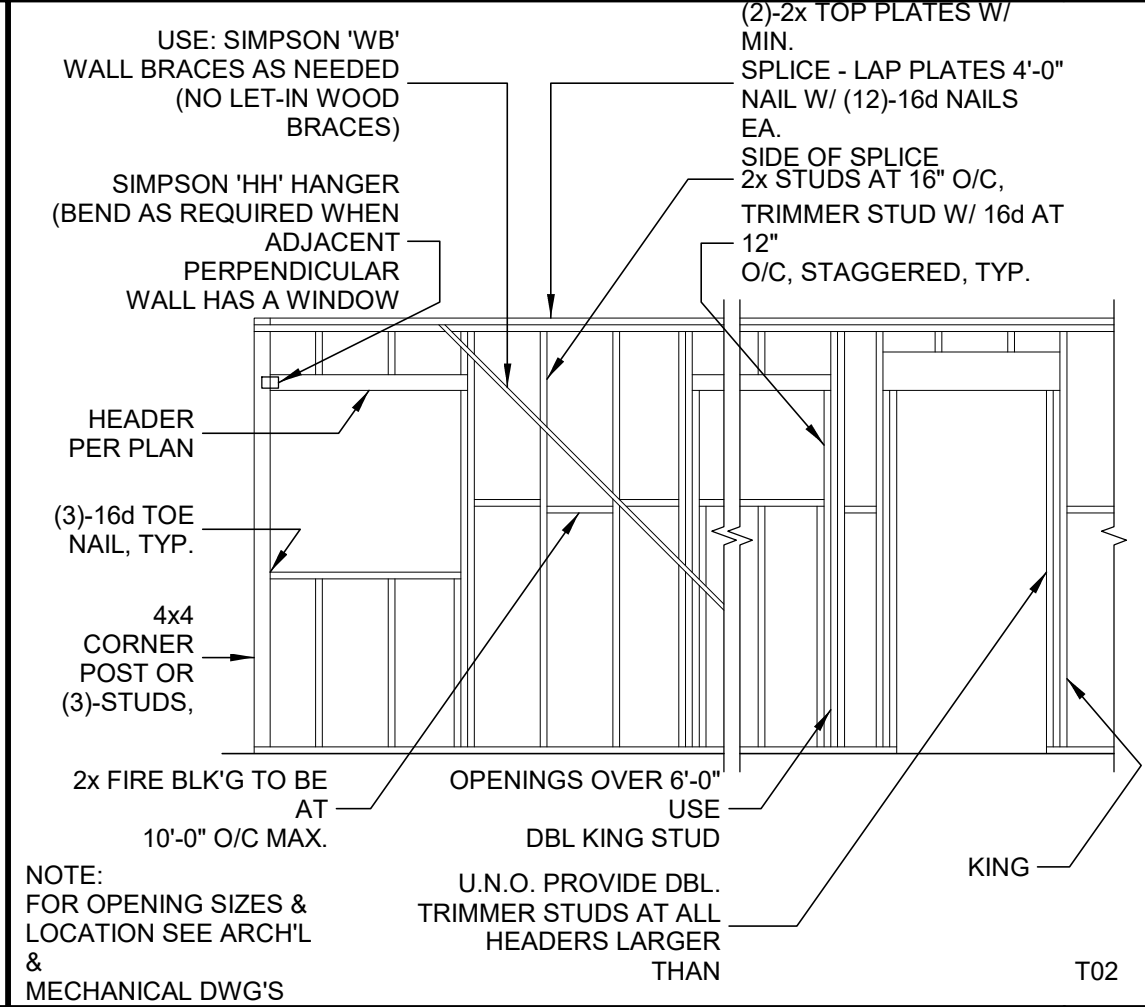
TYPICAL SOG JOINTS SCALE: 1" = 1'-0" **3**



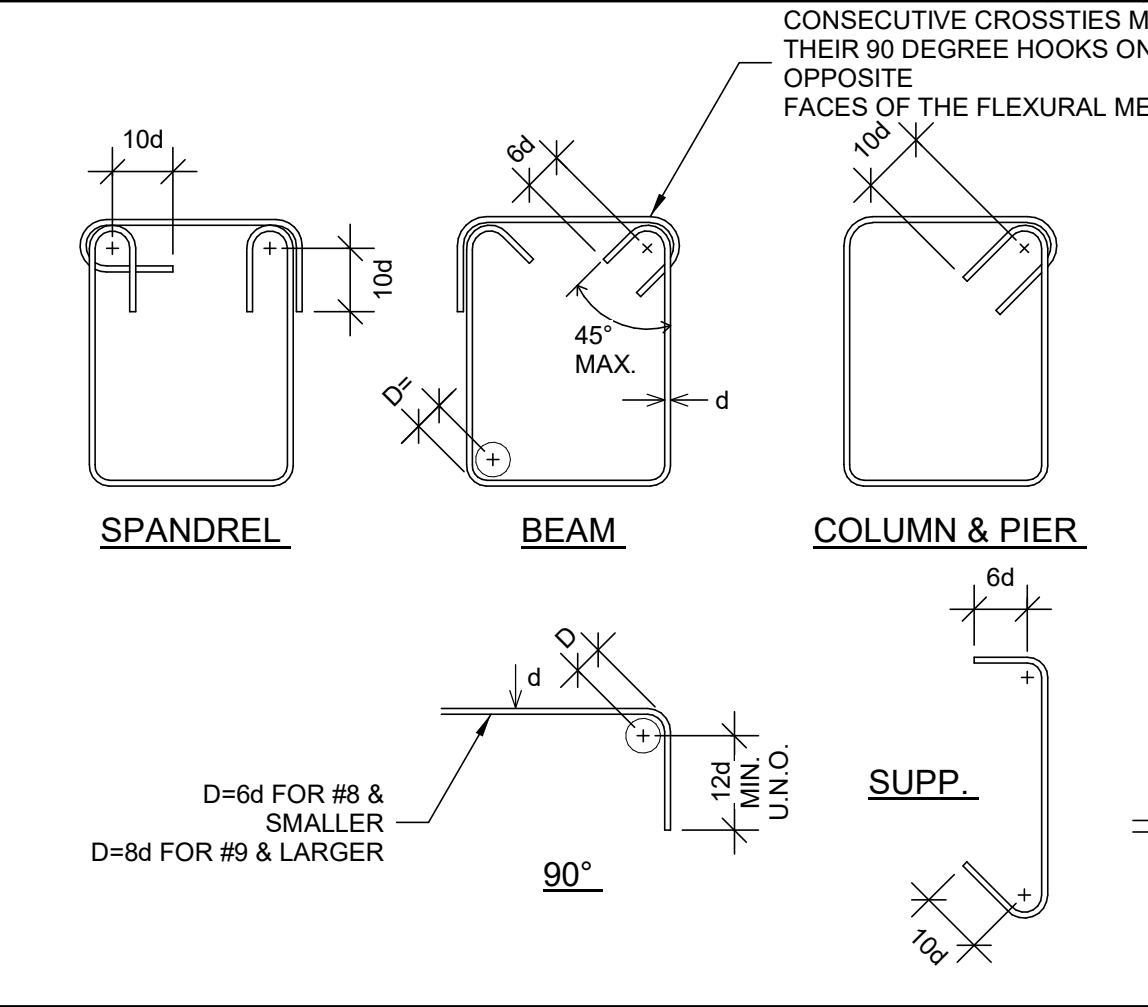
Slab Doweling SCALE: 1" = 1'-0" **23**



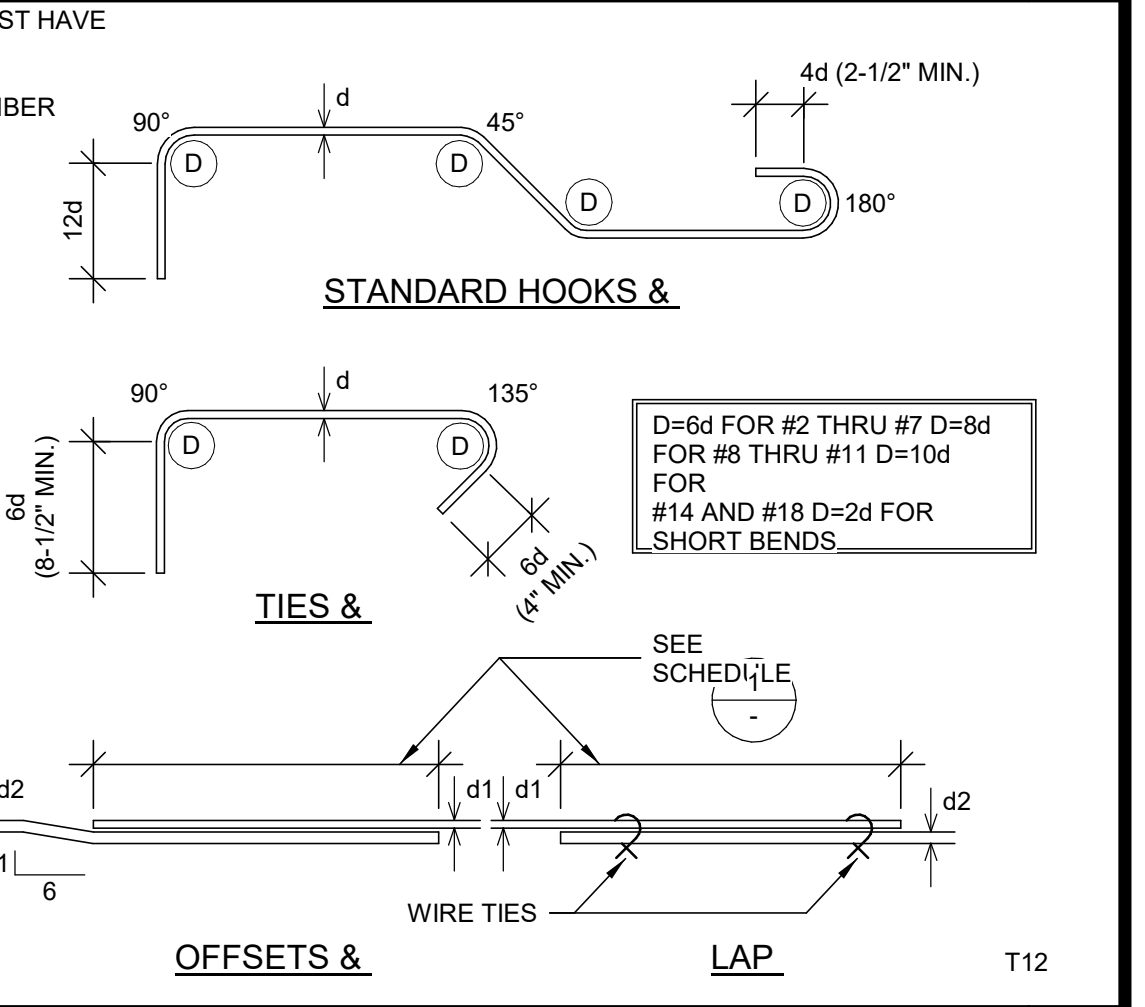
Lag Screws SCALE: 1" = 1'-0" **13**



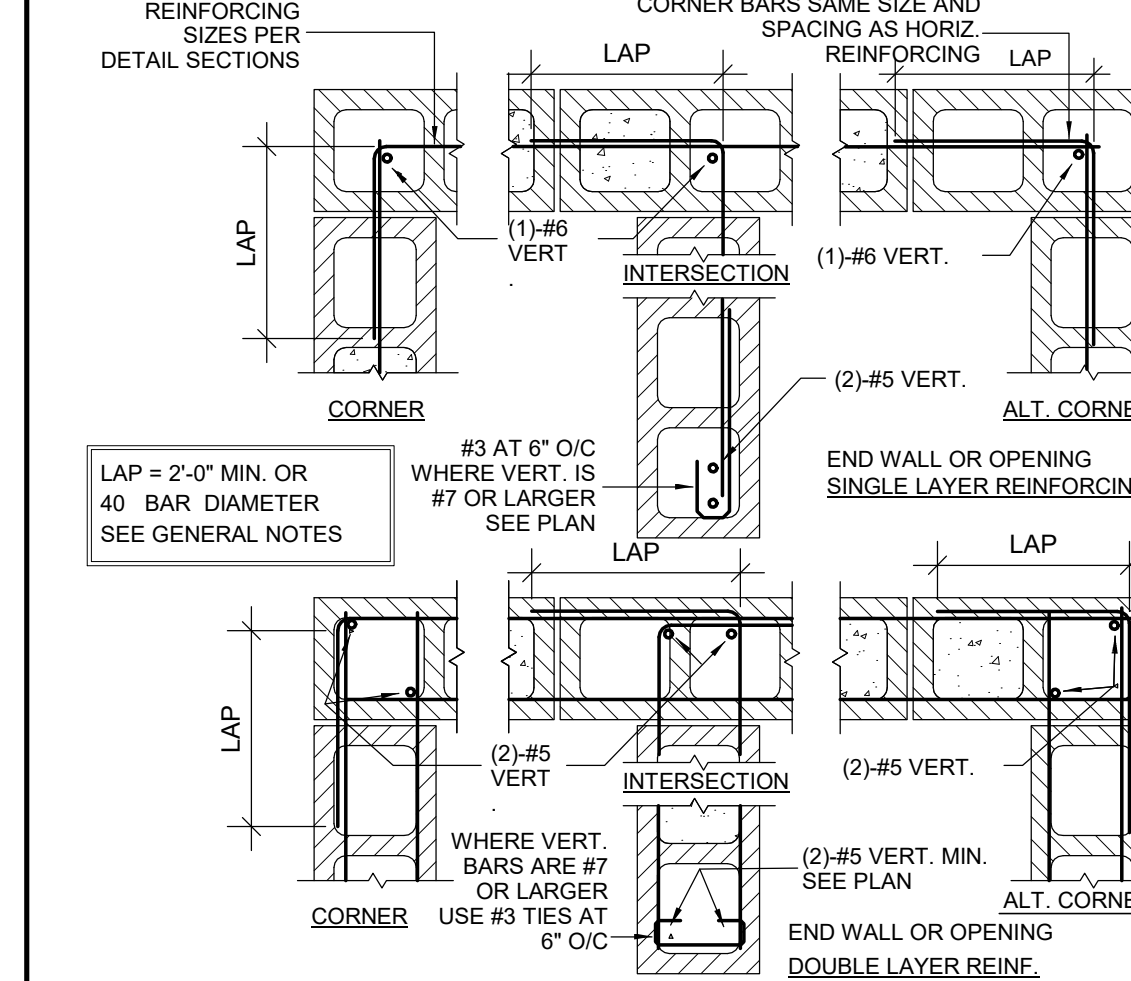
Mechanical Wall Framing SCALE: 1" = 1'-0" **8**



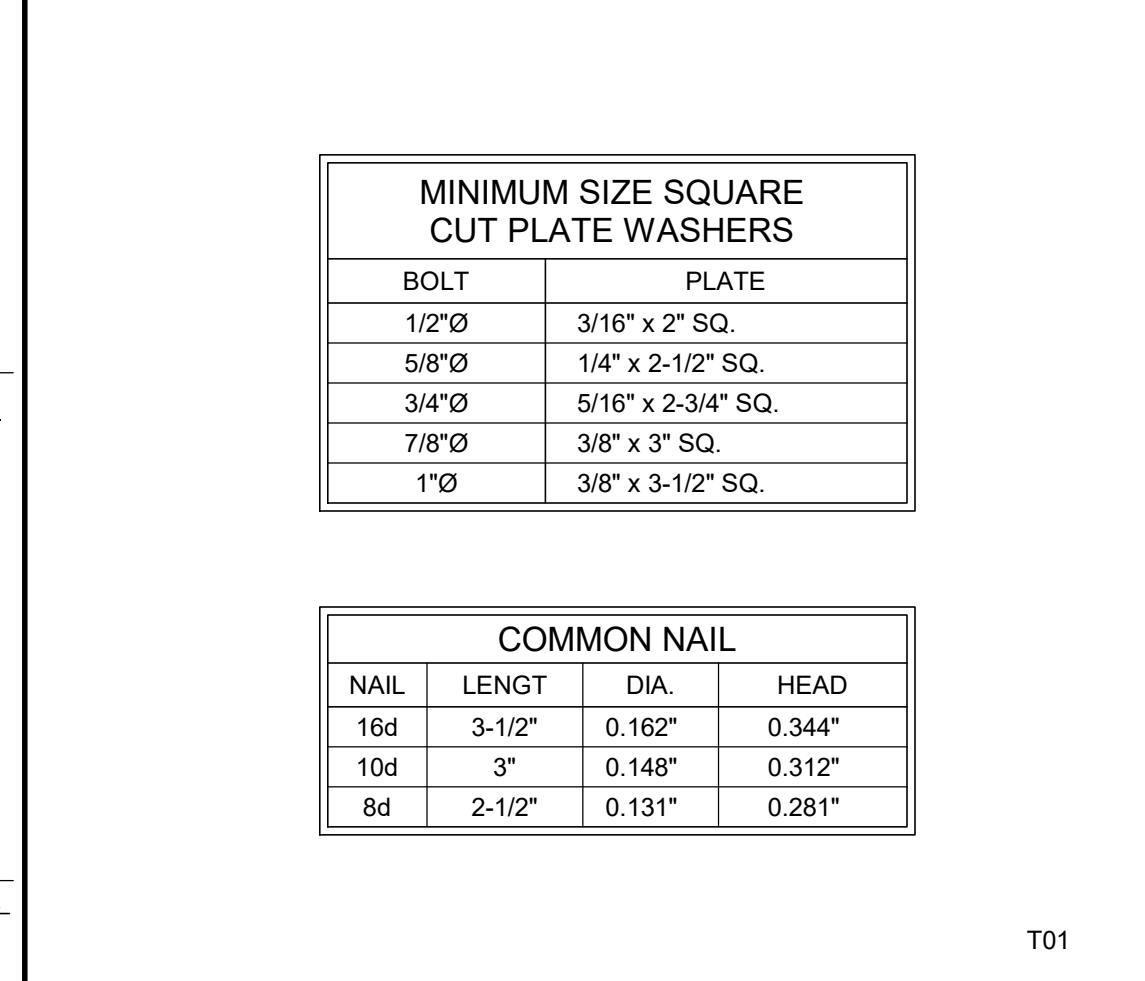
Bar Bends SCALE: 1" = 1'-0" **2**



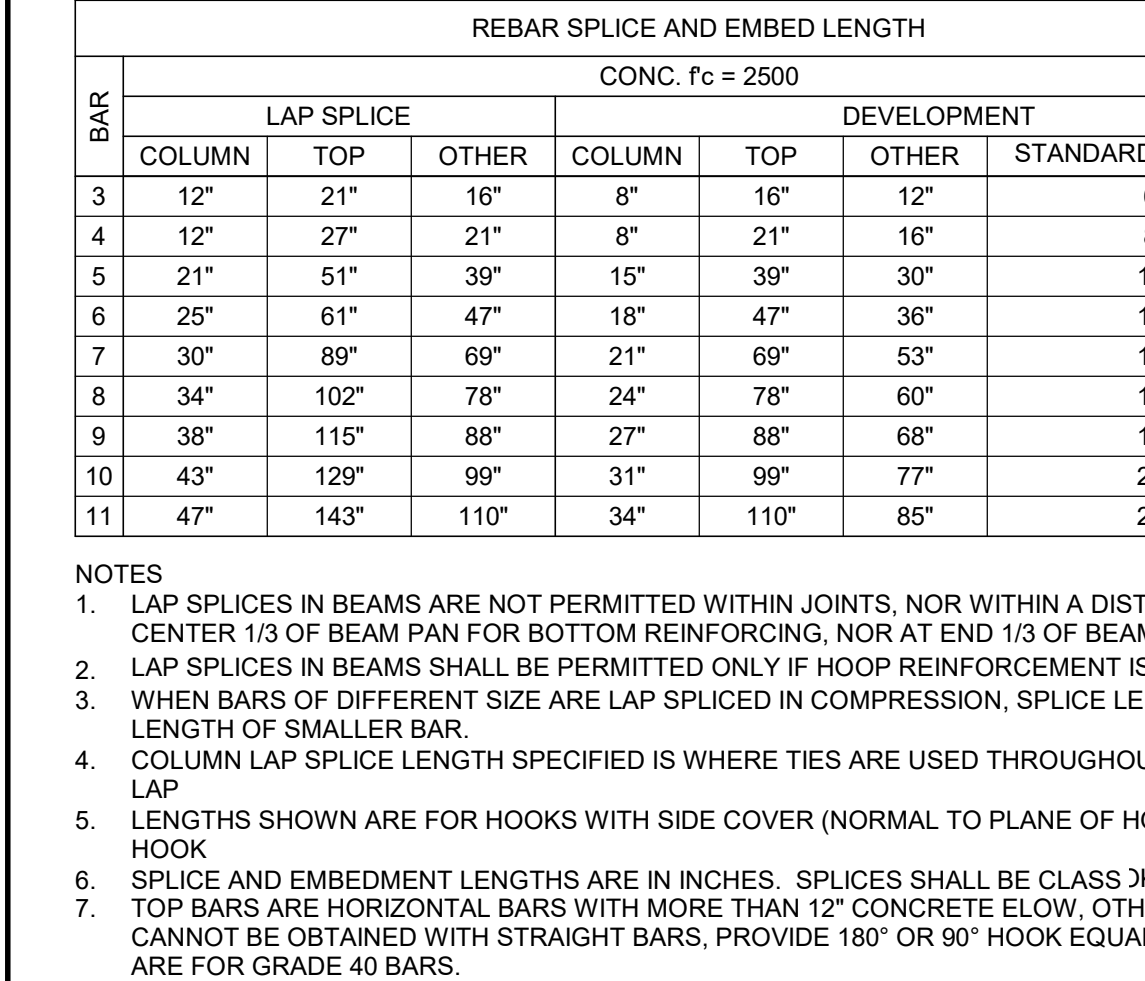
REBAR SPLICE AND EMBED LENGTH SCALE: 1" = 1'-0" **2**



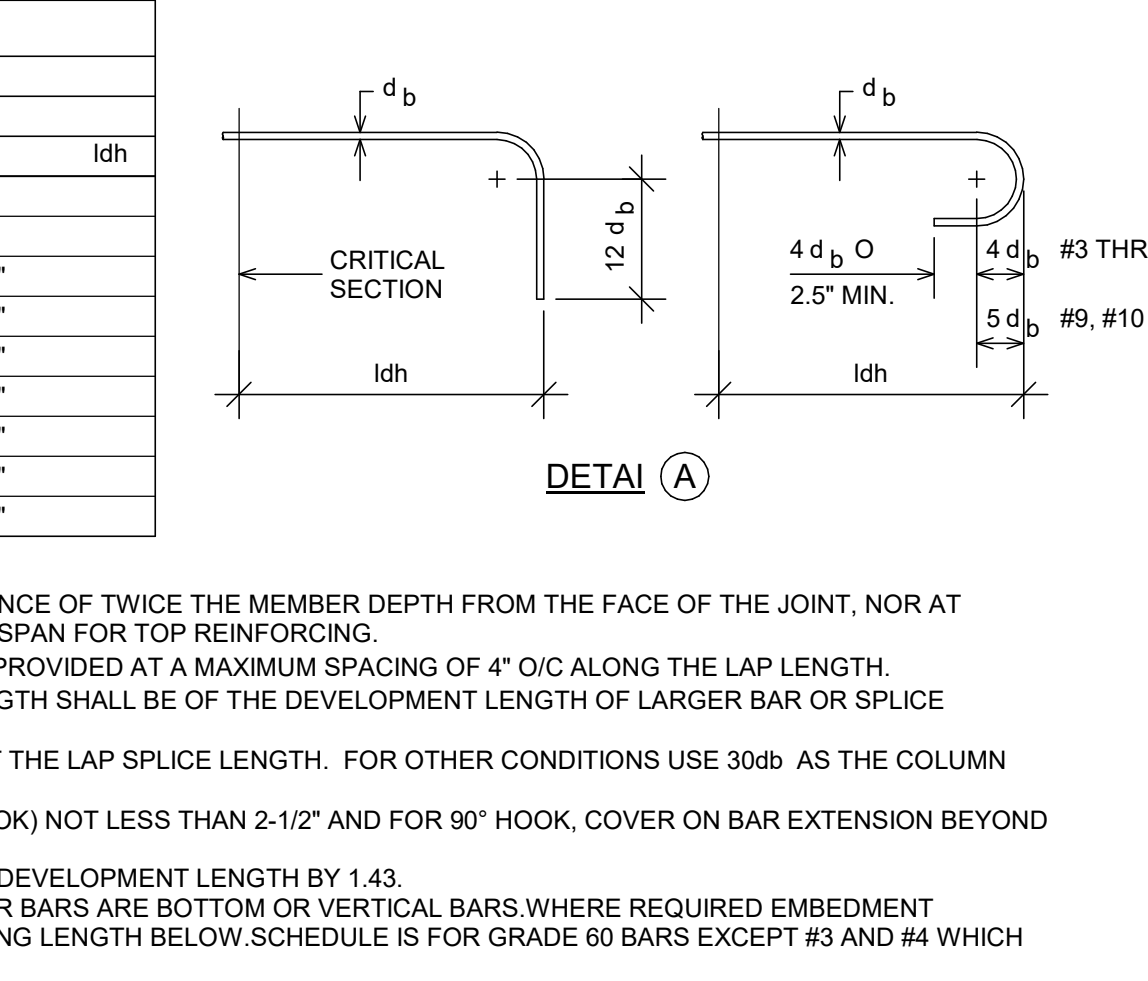
Wall & Footing Reinforcing SCALE: 1" = 1'-0" **20**



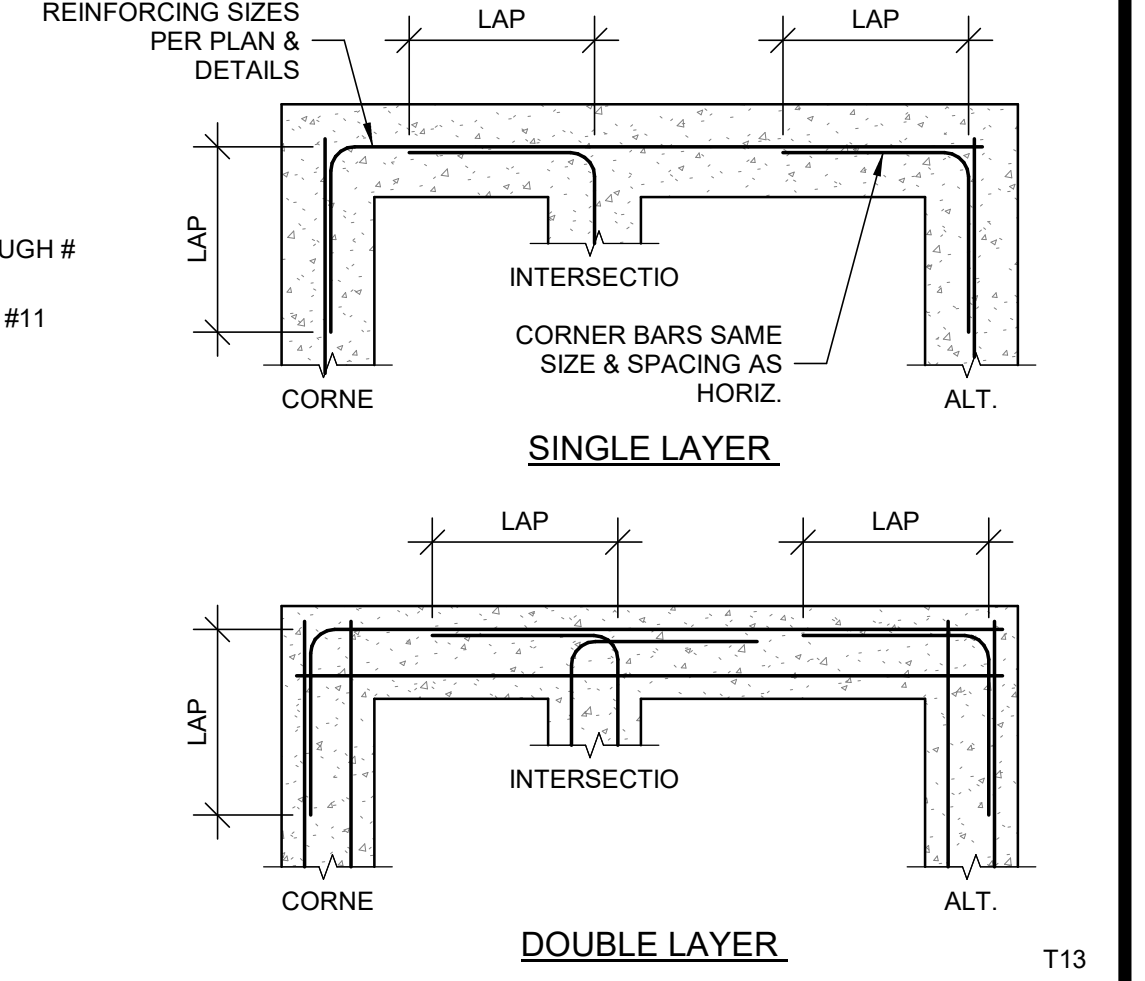
Washers & Nails SCALE: 1" = 1'-0" **12**



Reinforcing Layout SCALE: 1" = 1'-0" **1**



REINFORCING SIZES PER PLAN & DETAILS SCALE: 1" = 1'-0" **2**



TYPICAL STRUCTURAL DETAILS SCALE: 1" = 1'-0" **1**

OCFA FIRE STATION #4
2 CALIFORNIA AVE
IRVINE, CA 92612
ORANGE COUNTY FIRE AUTHORITY

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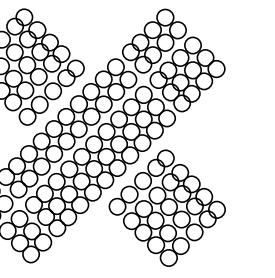
REV	DESCRIPTION	DATE

Job No. CE 22-123
Date 09/26/22
Drawn/Checked by CE
Scale As Indicated

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TYPICAL STRUCTURAL DETAILS



- FOUNDATION NOTES:**
- SEE SHEET S0.1, S0.2, S0.3, S1.1, THRU S1.2 FOR GENERAL NOTES AND TYPICAL DETAILS.
 - TYPICAL CONCRETE SLAB:** 4" ACTUAL THICKNESS CONCRETE WITH #4 BARS AT 18" O/C AT MID-HGT., OVER 2" SAND OVER 15-MIL. STEGO-WRAP VAPOR BARRIER OVER 2" SAND OVER BASE PER SOILS REPORT. REF DETAIL 3/S1.1
 - CONSTRUCTION OR CONTROL JOINT LOCATIONS PER FOUNDATION/SLAB PLAN
 - ALIGN A CONSTRUCTION OR CONTROL JOINT WITH RE-ENTRANT SLAB CORNERS, EACH WAY, TYPICAL
 - USE "EARLY ENTRY DRY-CUT SAW" AS SOON AS POSSIBLE WITHOUT CAUSING RAVELING OF CONCRETE EDGES. SAW/CUT ALONG SHORT DIRECTION OF FOUR FRST.
 - PROVIDE CONSTRUCTION/CONTROL JOINTS TO ENCLOSE APPROXIMATE SQUARE AREAS OF 285 SQ. FT. MAX, WITH MAX. PANEL ASPECT RATIO OF 1.3 TO 1.0
 - CONTRACTOR TO SUBMIT CONSTRUCTION/CONTROL JOINT PLAN TO ENGINEER/ARCHITECT FOR REVIEW/APPROVAL.
 - DIMENSIONS ARE TO CENTER LINE OR FACE OF FOOTINGS. SEE OTHER PLANS FOR LOCATIONS OF POSTS, WALLS AND ETC. CONTRACTOR SHALL VERIFY ALL DIMENSIONS WITH THE OWNER AND ARCHITECT PRIOR TO CONSTRUCTION.
 - ALL CONTINUOUS FOOTINGS SHALL EXTEND A DISTANCE EQUAL TO THE FOOTING DEPTH BEYOND THE END OF THE STUD WALL, UNLESS NOTED OTHERWISE. NO EXTENSION IS REQUIRED WHERE CONTINUOUS FOOTINGS CHANGE DIRECTION, UNLESS NOTED OTHERWISE.

PAD FOOTING SCHEDULE:

MARK	FOOTING	REINFORCING
P3.6	3'-6" SQ. x 24" D	(4)-#5 EACH WAY

Structural Keynotes

KN	Description	Detail
1	(E) CONCRETE SLAB	
3	(E) SHEARWALL W/ HOLD-DOWNS, DO NOT DISTURB	
4	(E) DOOR OPENING W/ (N) DOOR	
5	(N) 2x4 AT 16" O/C NON-BEARING WALL	
6	(E) 2x4 WALL TO REMAIN	
7	(E) WINDOW SILL REMOVED FOR (N) ROLL-UP DOOR	
8	(N) NARROWER DOOR IN (E) OPENING	



FOUNDATION PLAN
3/16" = 1'-0"

PRINT DATE 11/18/2022 11:23:44 AM Project Status: AGENCY SUBMITTAL

OCFA FIRE STATION #4

2 CALIFORNIA AVE
IRVINE, CA 92612

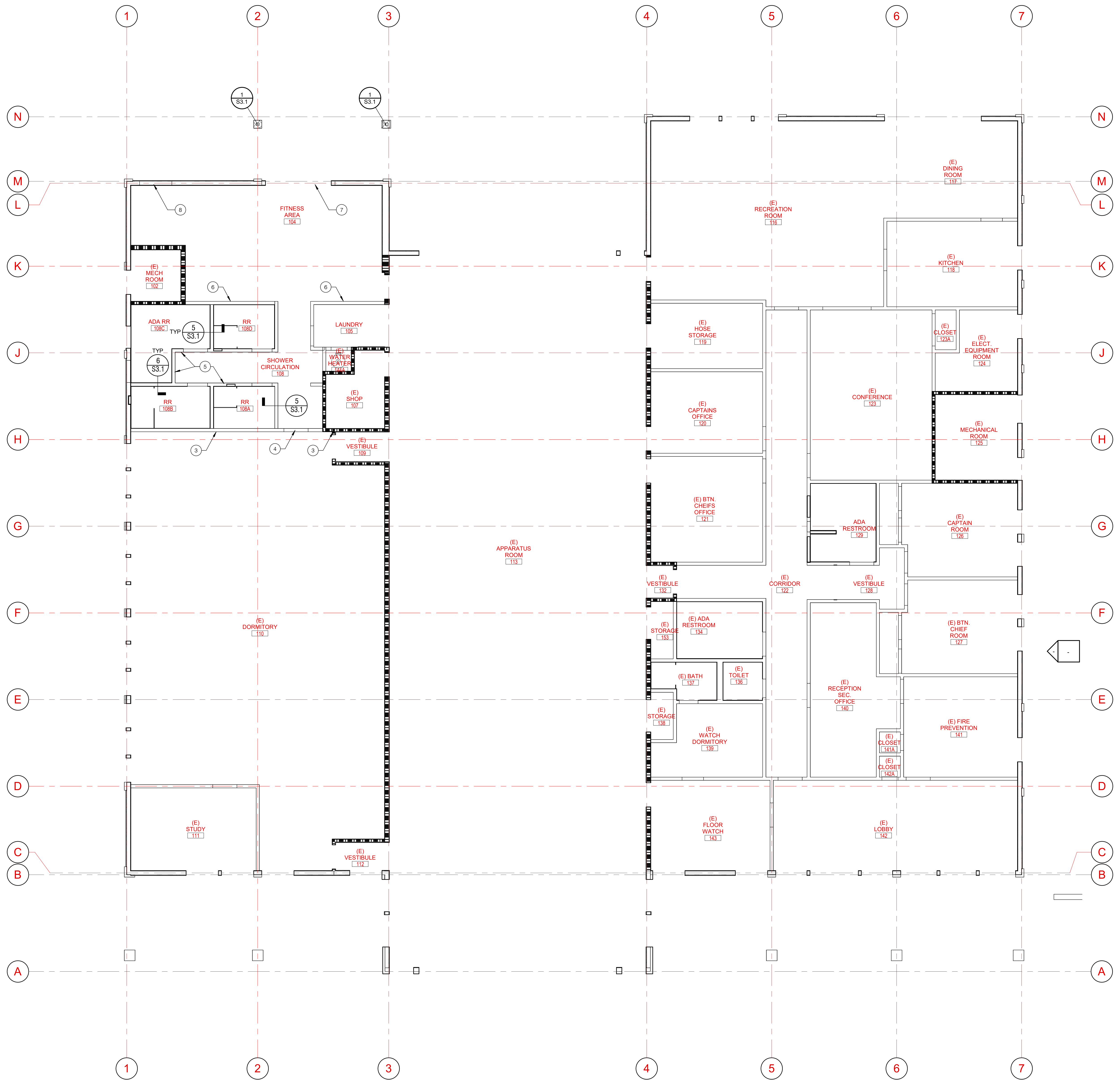
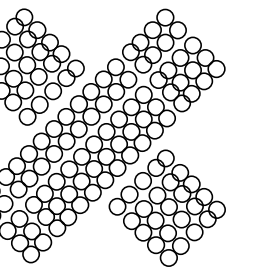
ORANGE COUNTY FIRE AUTHORITY

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REV	DESCRIPTION	DATE

Job No. CE 22-123
Date 08/26/22
Drawn/Checked by CE
Scale As Indicated

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Structural Keynotes		
KN	Description	Detail
1	(E) CONCRETE SLAB	
3	(E) SHEARWALL W/ HOLD-DOWNS, DO NOT DISTURB	
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8	(N) NARROWER DOOR IN (E) OPENING	

OCFA FIRE STATION #4

2 CALIFORNIA AVE
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REV	DESCRIPTION	DATE

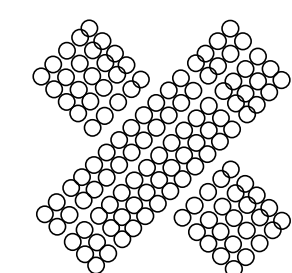
Job. No. CE 22-123
Date 06/28/22
Drawn/Checked by Author
Scale 3/16" = 1'-0"

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CEILING FRAMING PLAN

S2.2

1 CEILING FRAMING PLAN
3/16" = 1'-0"

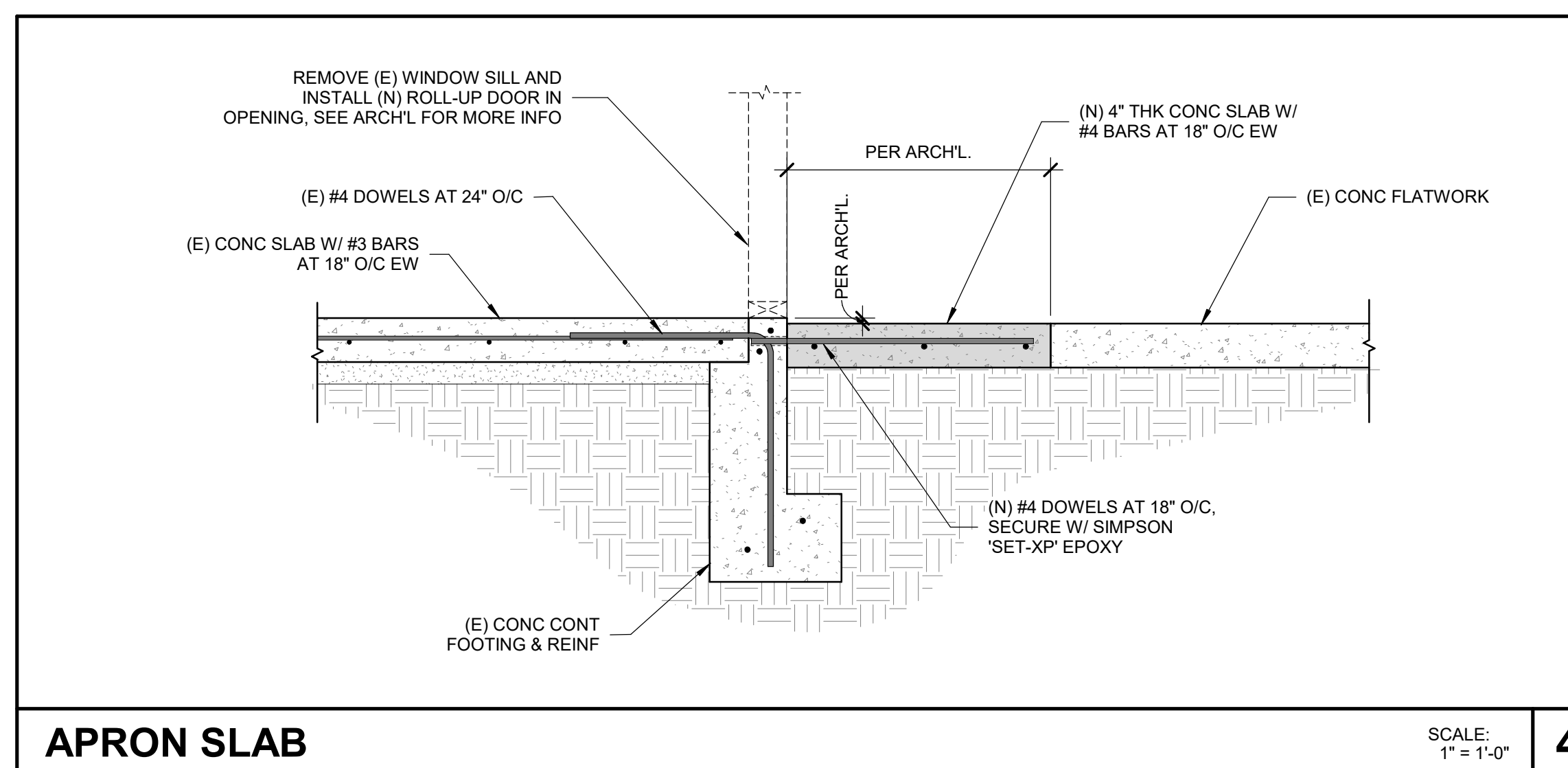


REV	DESCRIPTION	DATE

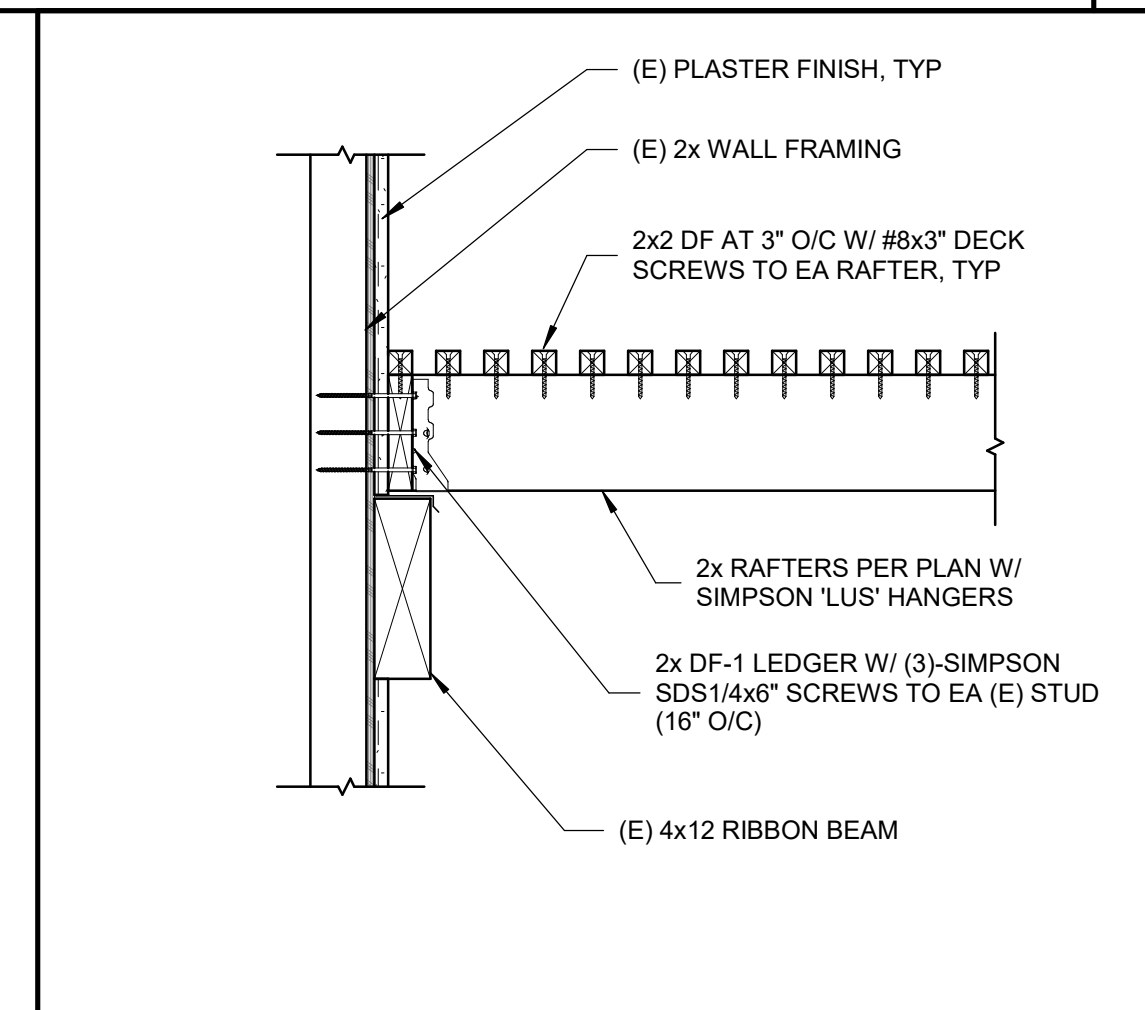
Job No. **CE 22-123**
Date **06/26/22**
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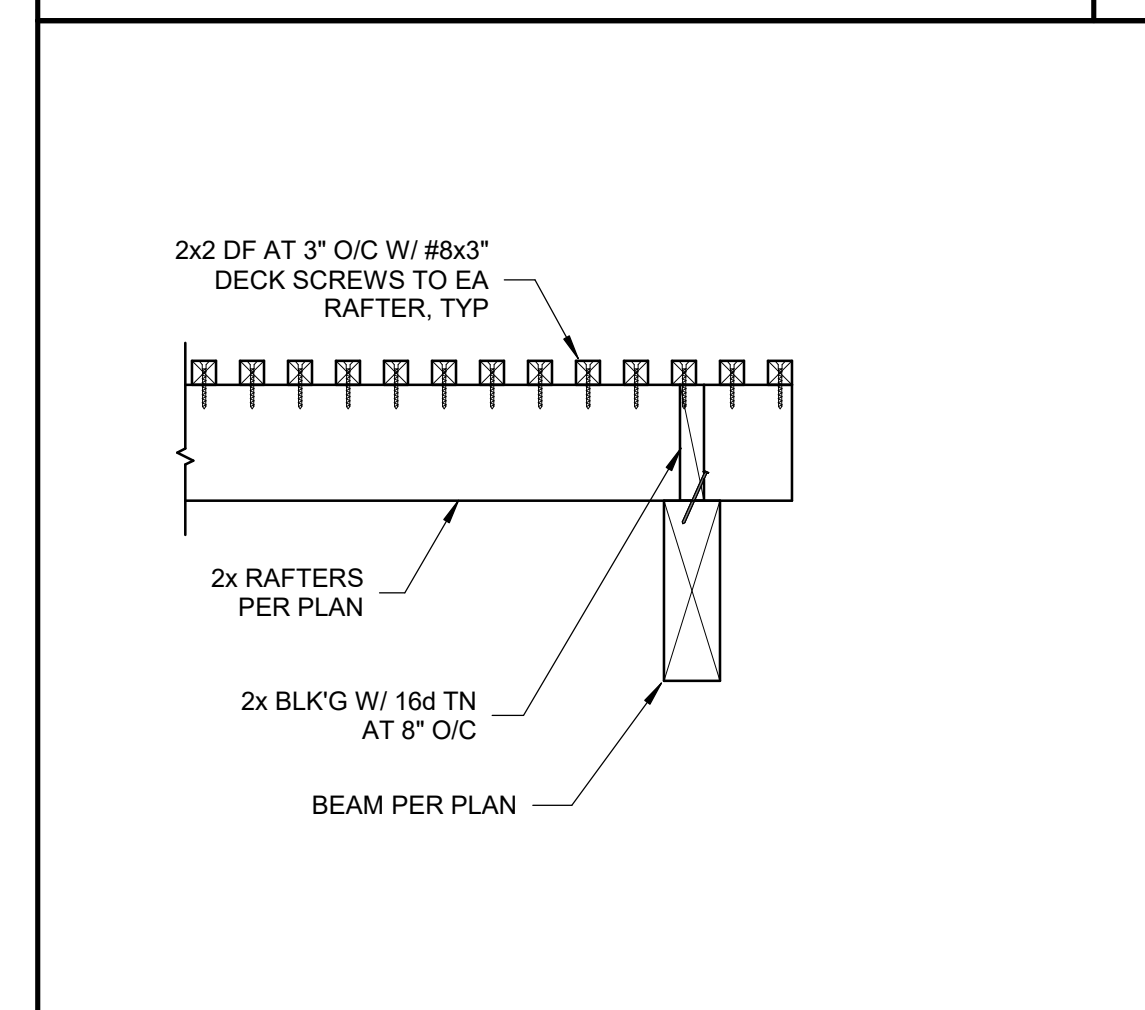
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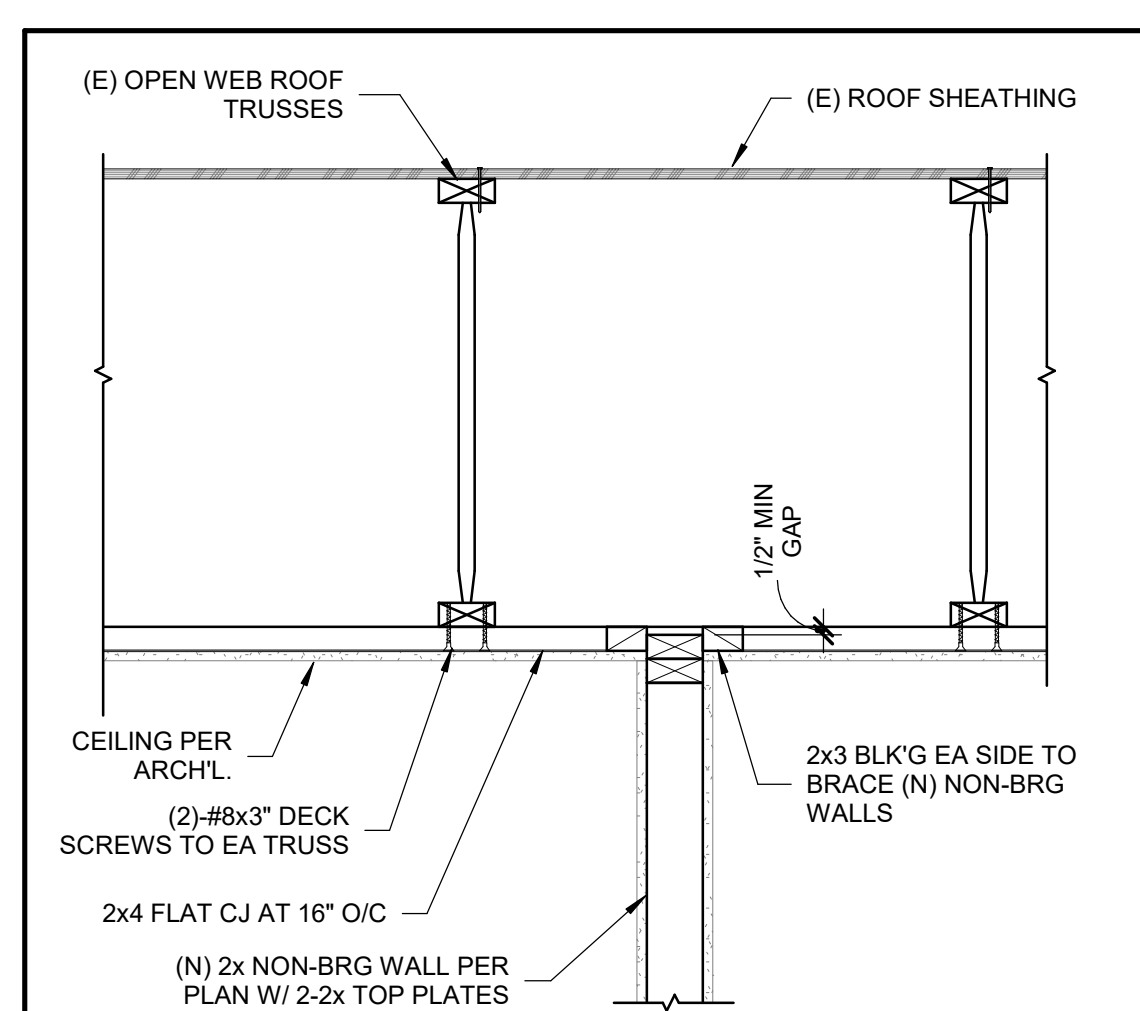
APRON SLAB SCALE: 1" = 1'-0" **4**



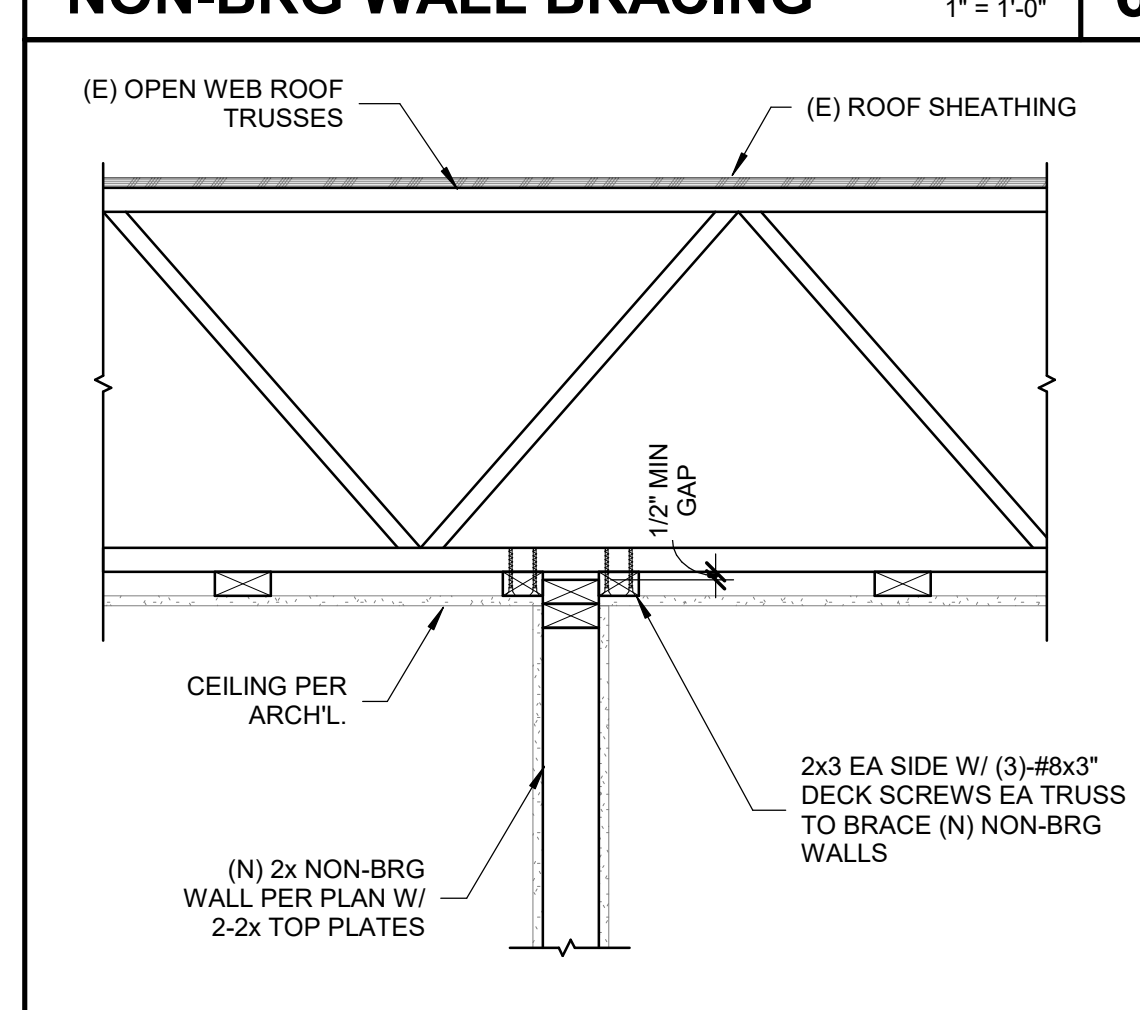
TRELLIS LEDGER SCALE: 1" = 1'-0" **3**



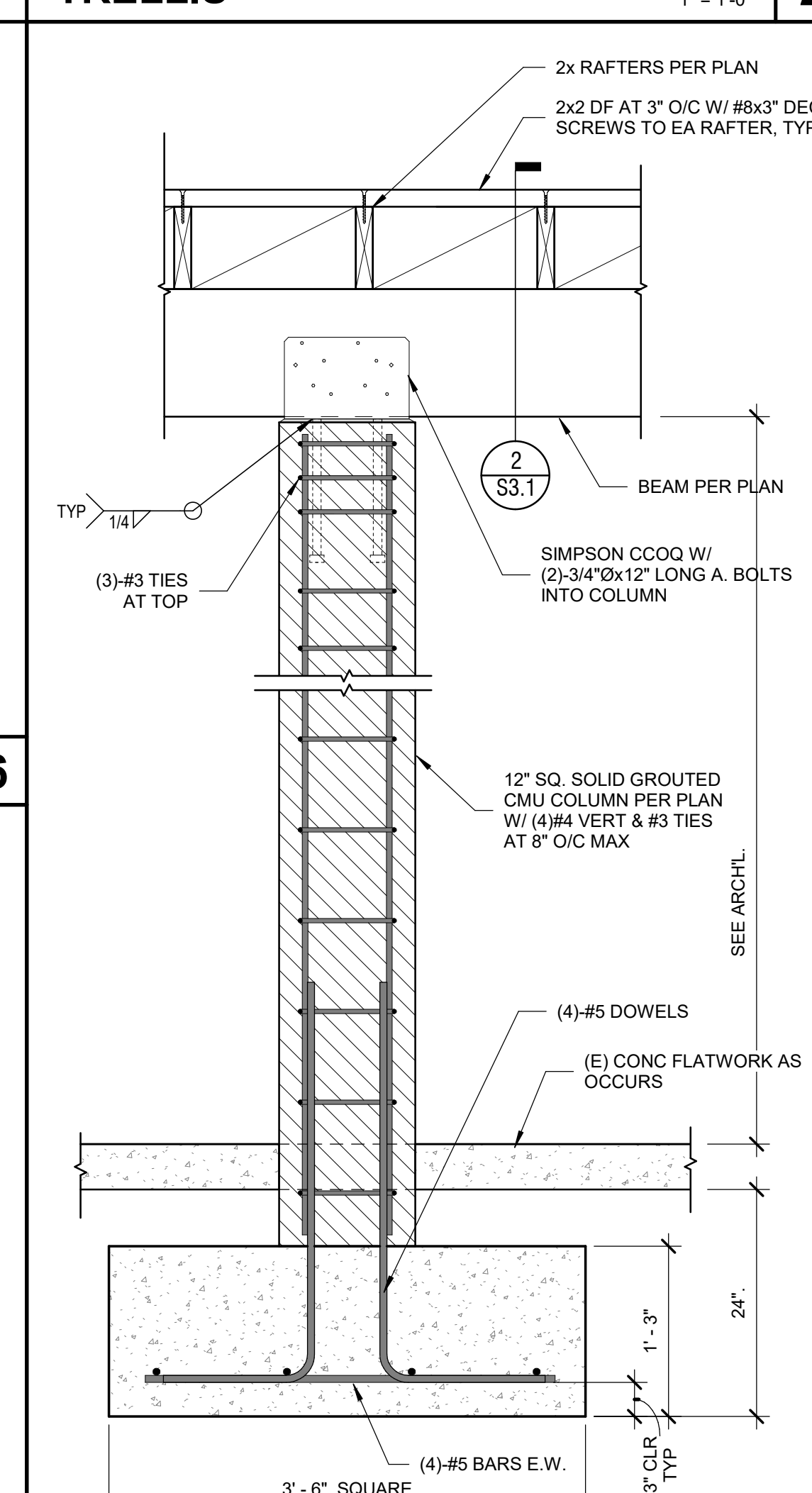
TRELLIS SCALE: 1" = 1'-0" **2**



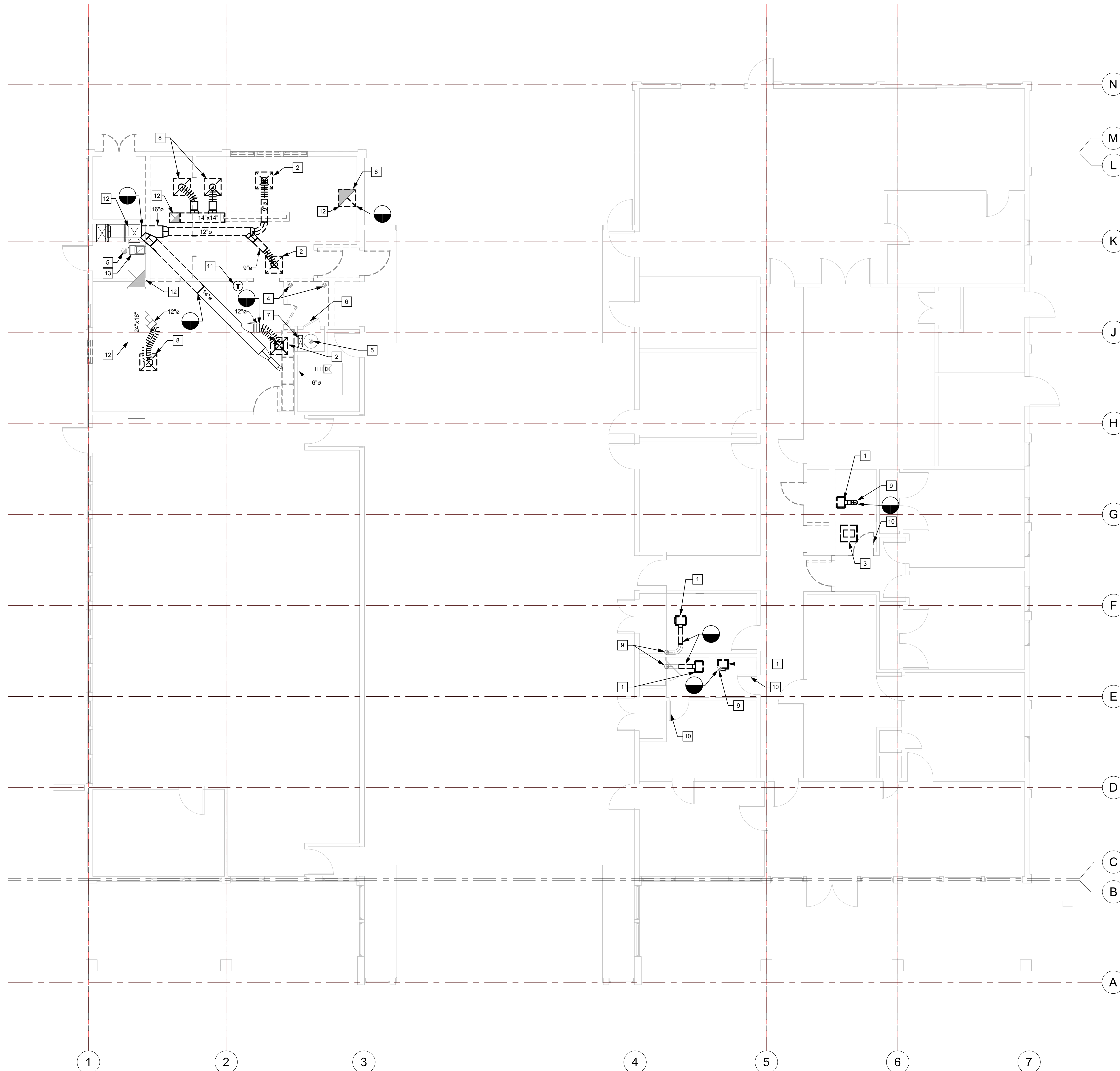
NON-BRG WALL BRACING SCALE: 1" = 1'-0" **6**



NON-BRG WALL BRACING SCALE: 1" = 1'-0" **5**



TRELLIS COLUMN SCALE: 1" = 1'-0" **1**

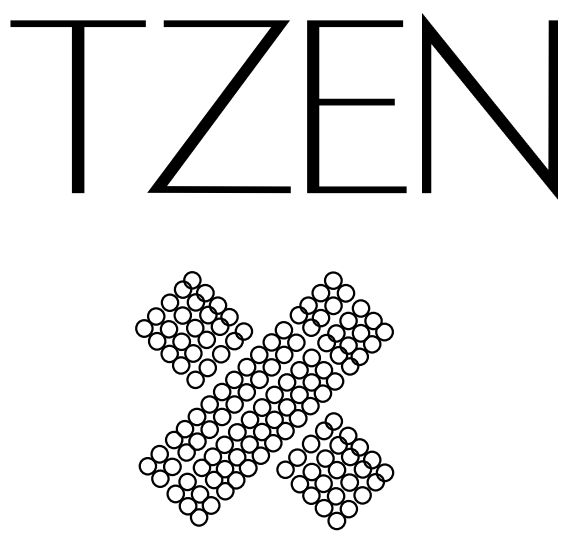


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2. SHUTDOWNS TO THE BUILDING SHALL BE COORDINATED WITH THE OWNER'S REPRESENTATIVE.

DEMOLITION NOTES

- 1 DEMOLISH EXISTING EXHAUST FAN AND GRILLE. CAP DUCT WITHIN CEILING TO FACILITATE INSTALLATION OF NEW EXHAUST FAN AND GRILLE.
- 2 DEMOLISH EXISTING SUPPLY GRILLE AND CAP DUCTWORK ABOVE CEILING.
- 3 DEMOLISH EXISTING CEILING HEATER.
- 4 EXISTING 6" DRYER VENT UTR TO REMAIN.
- 5 EXISTING 6" FLUE UTR TO REMAIN.
- 6 EXISTING HIGH AND LOW DOOR LOUVER TO REMAIN.
- 7 EXISTING COMBUSTION AIR OPENING AT LEAST 12" AFF.
- 8 DEMOLISH EXISTING EXHAUST GRILLE AND CAP ABOVE CEILING.
- 9 EXISTING EXHAUST DUCT UTR TO REMAIN.
- 10 EXISTING LOW DOOR LOUVER.
- 11 RELOCATE EXISTING THERMOSTAT. SEE M2.1 FOR NEW LOCATION.
- 12 PROVIDE A PRE-TAB REPORT OF ALL AREAS (INCLUDING OUT OF SCOPE AREAS) SERVED BY NOTED MECHANICAL UNITS.
- 13 EXISTING SPLIT HEAT PUMP TO REMAIN.

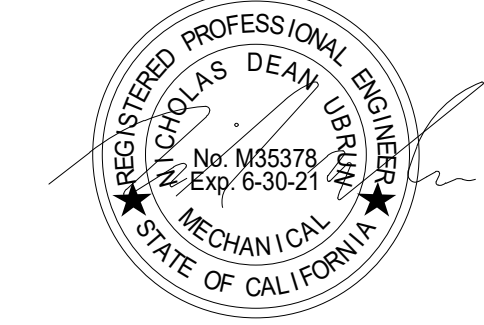


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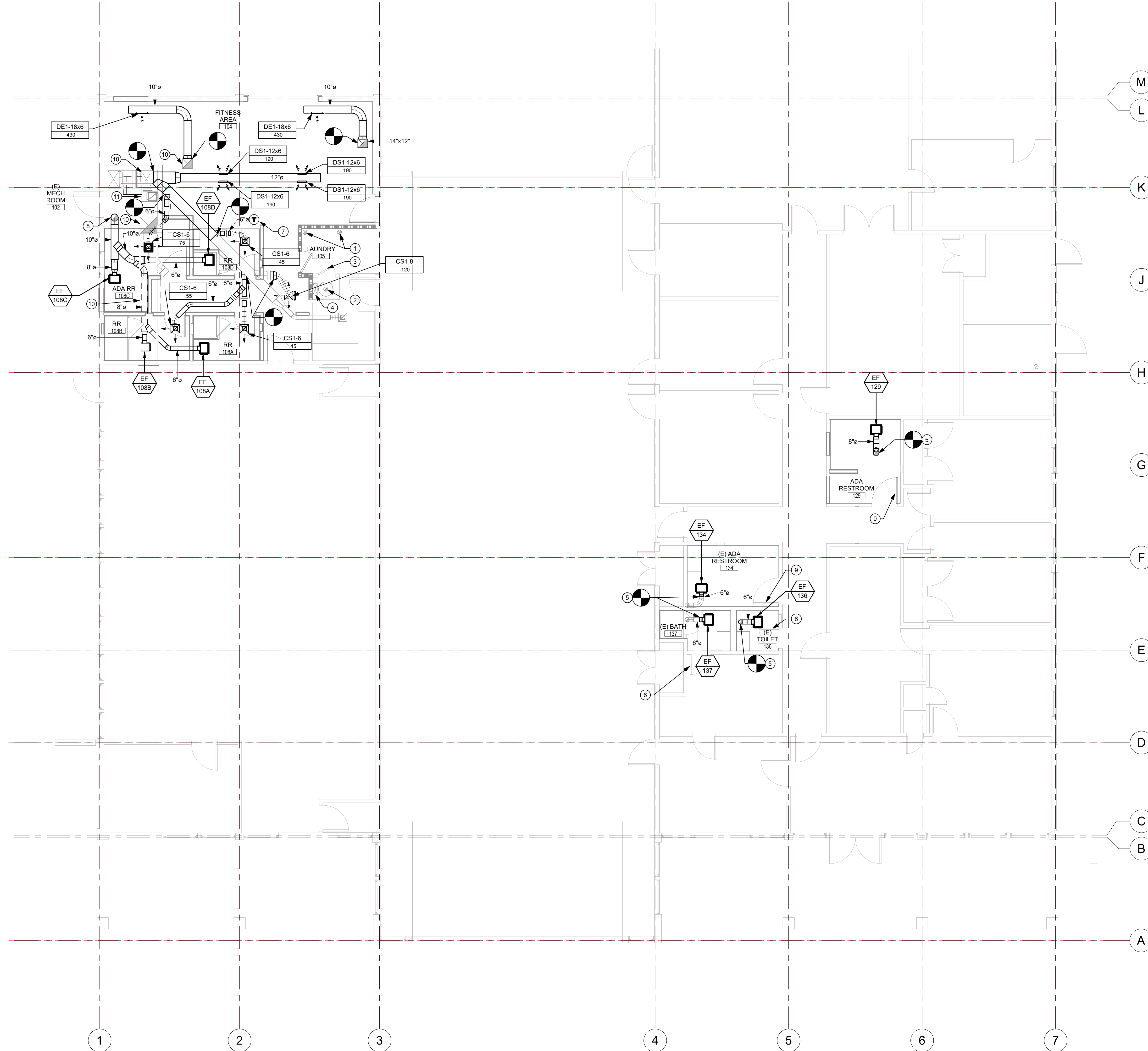
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OVERALL FIRST FLOOR MECHANICAL DEMOLITION PLAN

MD2.1



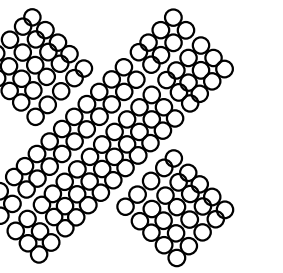
GENERAL NOTES

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- SHUTDOWNS TO THE BUILDING SHALL BE COORDINATED WITH THE OWNER'S REPRESENTATIVE.
- REFER TO DETAIL 1M5.1 FOR EXHAUST FAN INSTALLATION.
- REFER TO DETAIL 2M5.1 FOR DUCT HANGING DETAIL.
- REFER TO DETAIL 3M5.1 FOR GENERAL DUCTWORK INSTALLATION.
- REFER TO DETAIL 7M5.1 FOR DIFFUSER INSTALLATION DETAIL.
- REFER TO DETAIL 9M5.1 FOR DUCT MOUNTED SIDEWALL DIFFUSER.
- PROVIDE DOUBLE-WALL DUCTS WITH INSULATION IN ALL ROOMS WITH EXPOSED CEILING.

INSTALLATION NOTES

- EXISTING 6" DRYER VENT UTR.
- EXISTING 6" FLUE UTR.
- EXISTING HIGH AND LOW DOOR LOUVER.
- EXISTING COMBUSTION AIR OPENING AT LEAST 12" AFF.
- POINT OF CONNECTION TO EXISTING EXHAUST DUCT TRANSITION AS REQUIRED.
- EXISTING LOW DOOR LOUVER.
- RELOCATED THERMOSTAT. INSTALL PER DETAIL 5M5.1.
- NEW 10"Ø EXHAUST DUCT UTR. SEE DETAIL 6M5.1 FOR DUCT UTR PENETRATION.
- PROVIDE NEW DOOR LOUVER WITH A NET FREE AREA OF 0.4 SQFT.
- BALANCE OUT OF SCOPE AREAS SERVED BY MECHANICAL UNITS NOTED TO ORIGINAL AIRFLOW READ ON PRE-TAB REPORT.
- EXISTING SPLIT HEAT PUMP UNIT.

ITZEN

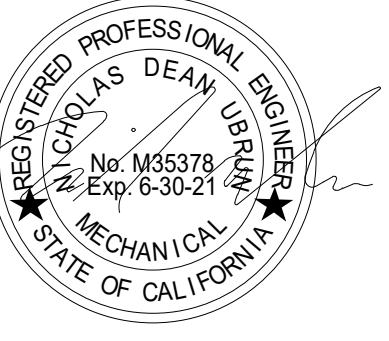


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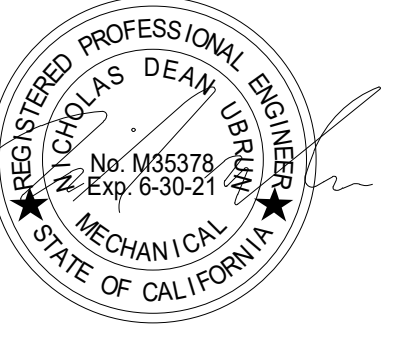
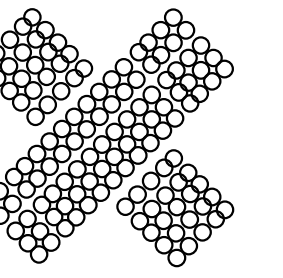
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**FIRST FLOOR OVERALL
MECHANICAL PLAN**

M2.1

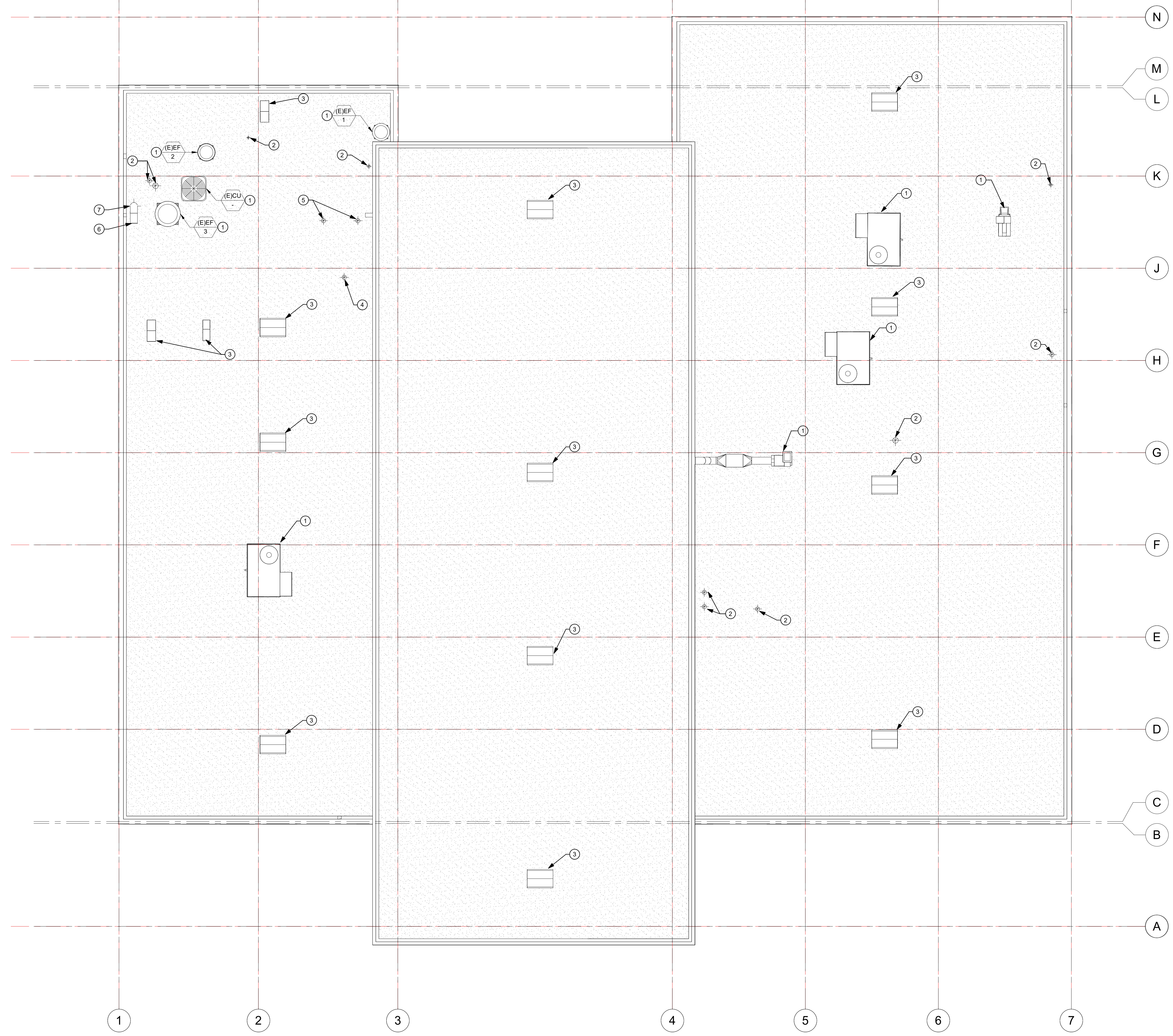


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- 1. DRAWINGS ARE DIAGRAMMATIC IN NATURE. ACTUAL EXISTING CONDITIONS SHALL BE FIELD VERIFIED PRIOR TO CONSTRUCTION EFFORT.
- 2. SHUTDOWNS TO THE BUILDING SHALL BE COORDINATED WITH THE OWNER'S REPRESENTATIVE.
- 3. PER SECTION 3-20-1.B OF THE ZONING ORDINANCE, SCREENING SHALL BE PROVIDED SO THAT MATERIALS STORED IN ANY OUTDOOR STORAGE AREA AND/OR EQUIPMENT AT GRADE OR ON THE ROOF AREA SCREENED FROM ADJACENT STREETS, NO MATTER THE STREET GRADE, AND ALL PROPERTIES AT THE SAME GRADE.

INSTALLATION NOTES

- ① EXISTING MECHANICAL UNIT TO REMAIN.
- ② EXISTING VENT.
- ③ EXISTING OUTSIDE AIR INTAKE TO REMAIN.
- ④ EXISTING 6" FLUE FOR WATER HEATER.
- ⑤ EXISTING 6" DRYER VENT.
- ⑥ NEW 10" Ø EXHAUST VENT TERMINATION. SEE DETAIL 0185.1 FOR INSTALLATION. MAINTAIN 10 FEET FROM ANY OUTSIDE AIR INTAKE.
- ⑦ 10" Ø EXHAUST DUCT DOWN.



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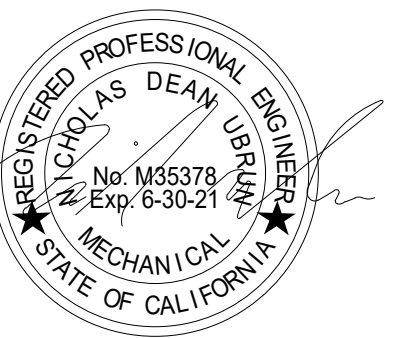
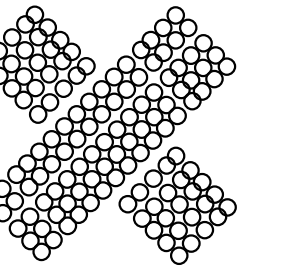
Job. No. 122-06-10
Date 06-30-22
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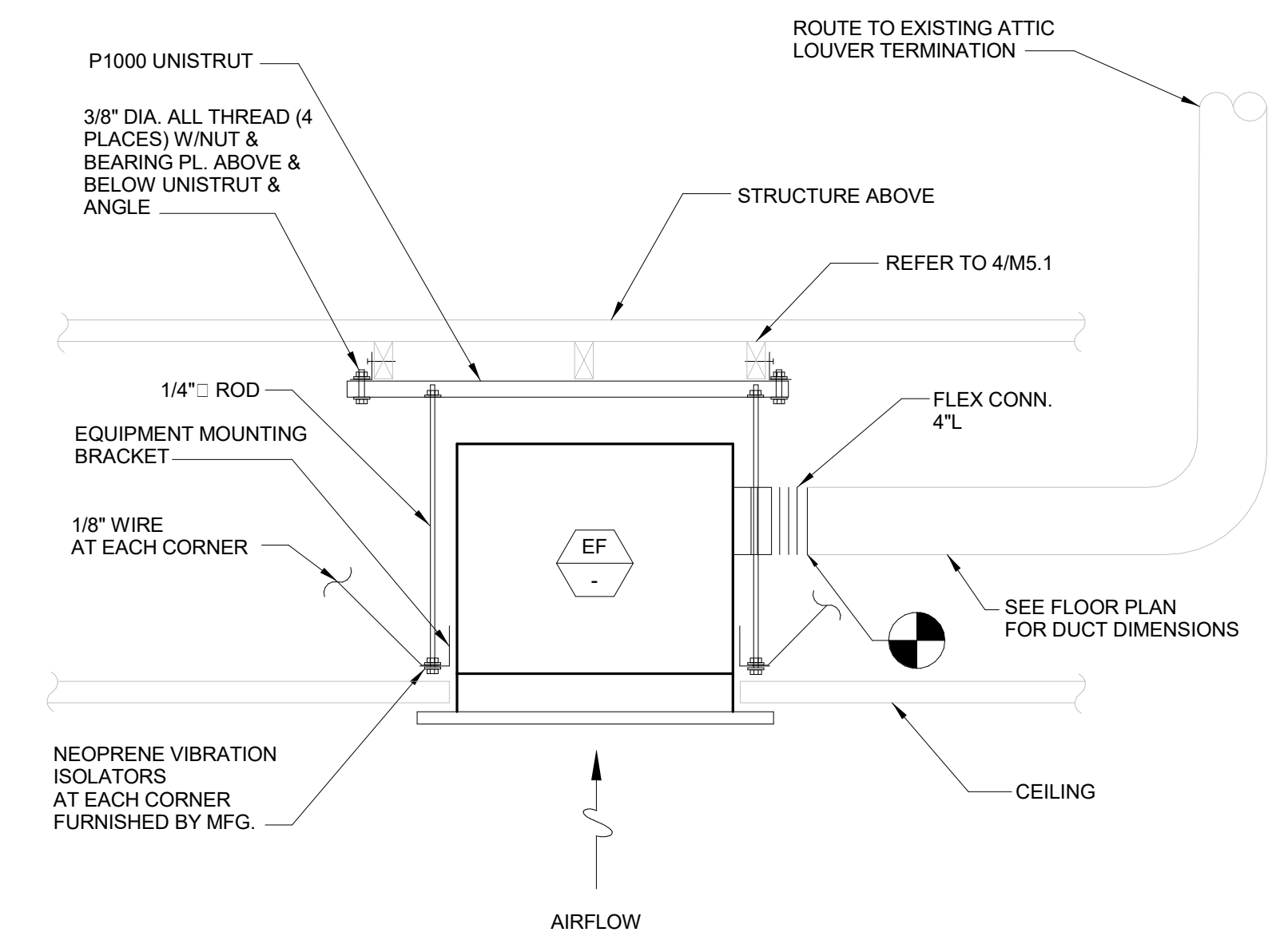
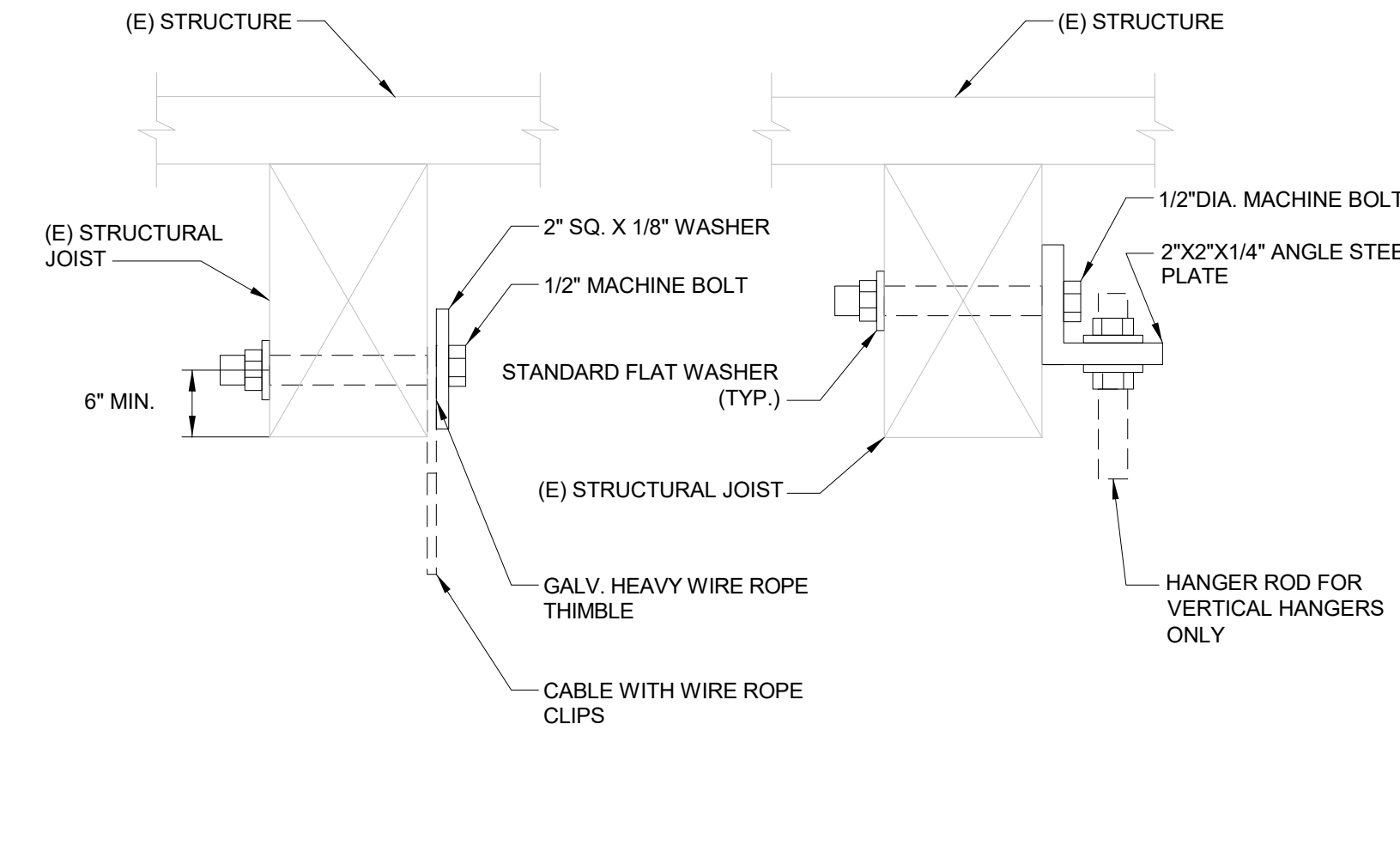
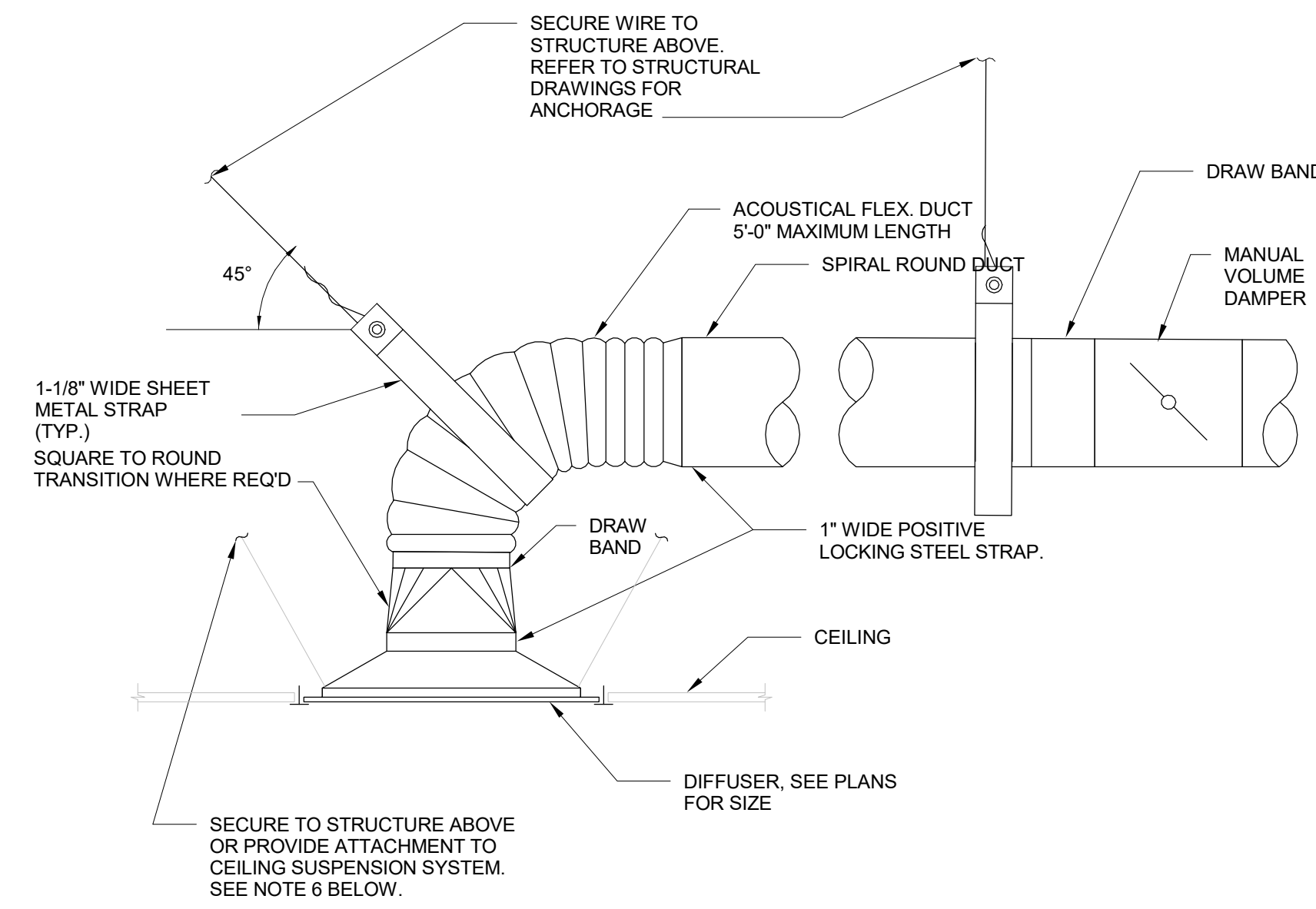
MECHANICAL ROOF PLAN

M2.2



DIA.	MAXIMUM SPACING	WIRE DIA.	ROD	STRAP
10" dn	12'	ONE 12 GA.	1/4"	1" x22 GA.
11-18"	12'	TWO 12 GA. OR ONE 8 GA.	1/4"	1" x22 GA.
19-24"	12'	ONE 10 GA.	1/4"	1" x22 GA.

- NOTES:**
- STRAPS ARE GALVANIZED STEEL; RODS ARE UNCOATED OR GALVANIZED STEEL; WIRE IS BLACK ANNEALED, BRIGHT BASIC, OR GALVANIZED STEEL. ALL ARE ALTERNATIVES.
 - SEE DETAIL 8/M5.1 FOR DUCT HANGERS.
 - TABLE ALLOWS FOR CONVENTIONAL WALL THICKNESS, AND JOINT SYSTEMS PLUS ONE LB./SF (4.89 KG/MF) INSULATION WEIGHT. IF HEAVIER DUCTS ARE TO BE INSTALLED, ADJUST HANGER SIZES TO BE WITHIN THEIR LOAD LIMITS. HANGER SPACING MAY BE ADJUSTED BY SPECIAL ANALYSIS.
 - DESIGNERS, FOR INDUSTRIAL GRADE SUPPORTS, INCLUDING SADDLES, SINGLE LOAD TRAPEZOID LOADS, LONGER SPANS AND FLANGE JOINT LOADS, SEE SMACNA'S ROUND INDUSTRIAL DUCT CONSTRUCTION STANDARDS.
 - SEE SMACNA'S HVAC DUCT CONSTRUCTION STANDARDS FIG. 3-9 AND 3-10 FOR FLEXIBLE DUCT SUPPORTS.



SMACNA TABLE 4-2: ROUND DUCT HANGER SIZES

SCALE	10
N.T.S.	

DIFFUSER INSTALLATION DETAIL

SCALE	7
N.T.S.	

DUCT HANGER DETAIL - UPPER ATTACHEMENT

SCALE	4
N.T.S.	

CEILING MOUNTED EXHAUST FAN

SCALE	1
N.T.S.	

LEGEND

--- 24V. CONTROL WIRING BY MECH. CONTRACTOR.

--- 120V. CONTROL WIRING BY MECHANICAL CONTRACTOR.

--- WIRING BY ELECTRICAL CONTRACTOR

(E) FURNISHED & INSTALLED BY MECHANICAL CONTRACTOR

(ME) FURNISHED BY MECH. CONTR. INSTALLED BY ELECT. CONTR.

(EM) FURNISHED BY ELECT. CONTR. INSTALLED BY MECH. CONTR.

NOTES

- WIRE EQUIPMENT CONTROL TERMINALS IN ACCORDANCE WITH MANUFACTURERS DRAWINGS.
- INSTALL ALL ELECTRICAL DEVICES IN A U.L. APPROVED DEVICES APPROVED ENCLOSURE WITH ELECTRICAL DEVICES WIRED TO TERMINAL STRIP.
- USE ENGRAVED NAMEPLATES TO IDENTIFY ALL CONTROL DEVICES.
- ALL MOTOR STARTERS WILL BE FACTORY WIRED ONLY TO TERMINALS WITHIN INDIVIDUAL STARTERS. ALL INTERCONNECTING WIRING BY MECHANICAL CONTRACTOR.
- ALL CONTROL WIRING & CONDUIT BY MECHANICAL CONTRACTOR UNLESS SPECIFICALLY INDICATED OTHERWISE.
- PROVIDE ALL NECESSARY RELAYS AND EQUIPMENT CONNECTIONS TO INTERLOCK TO FIRE ALARM CONTROL PANEL/ SMOKE CONTROL PANEL FOR UNIT SHUTDOWN.

BMS BUILDING MANAGEMENT AND CONTROL SYSTEM

DDC DIRECT DIGITAL CONTROL

DDCC DIRECT DIGITAL CONTROL CONTROLLER

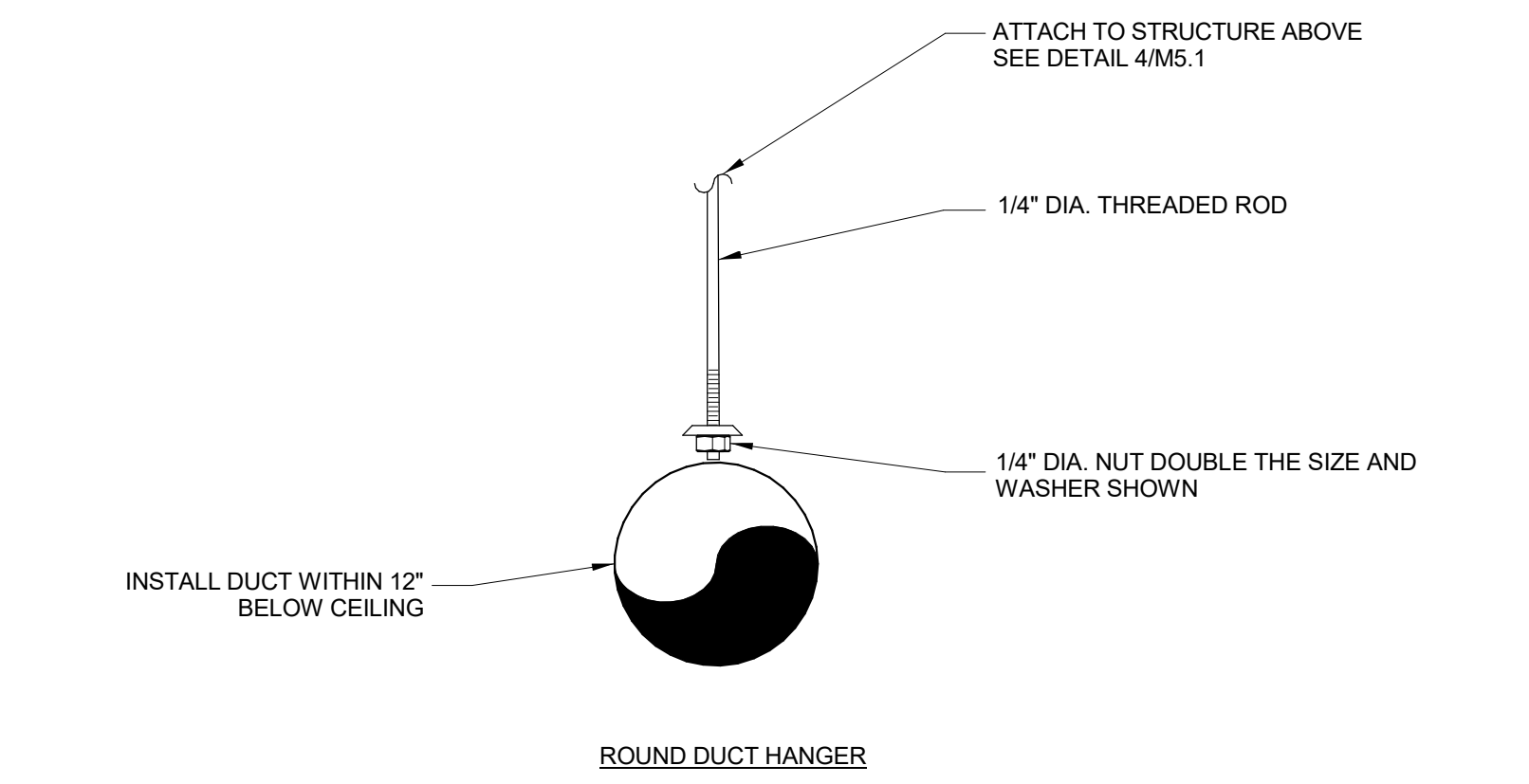
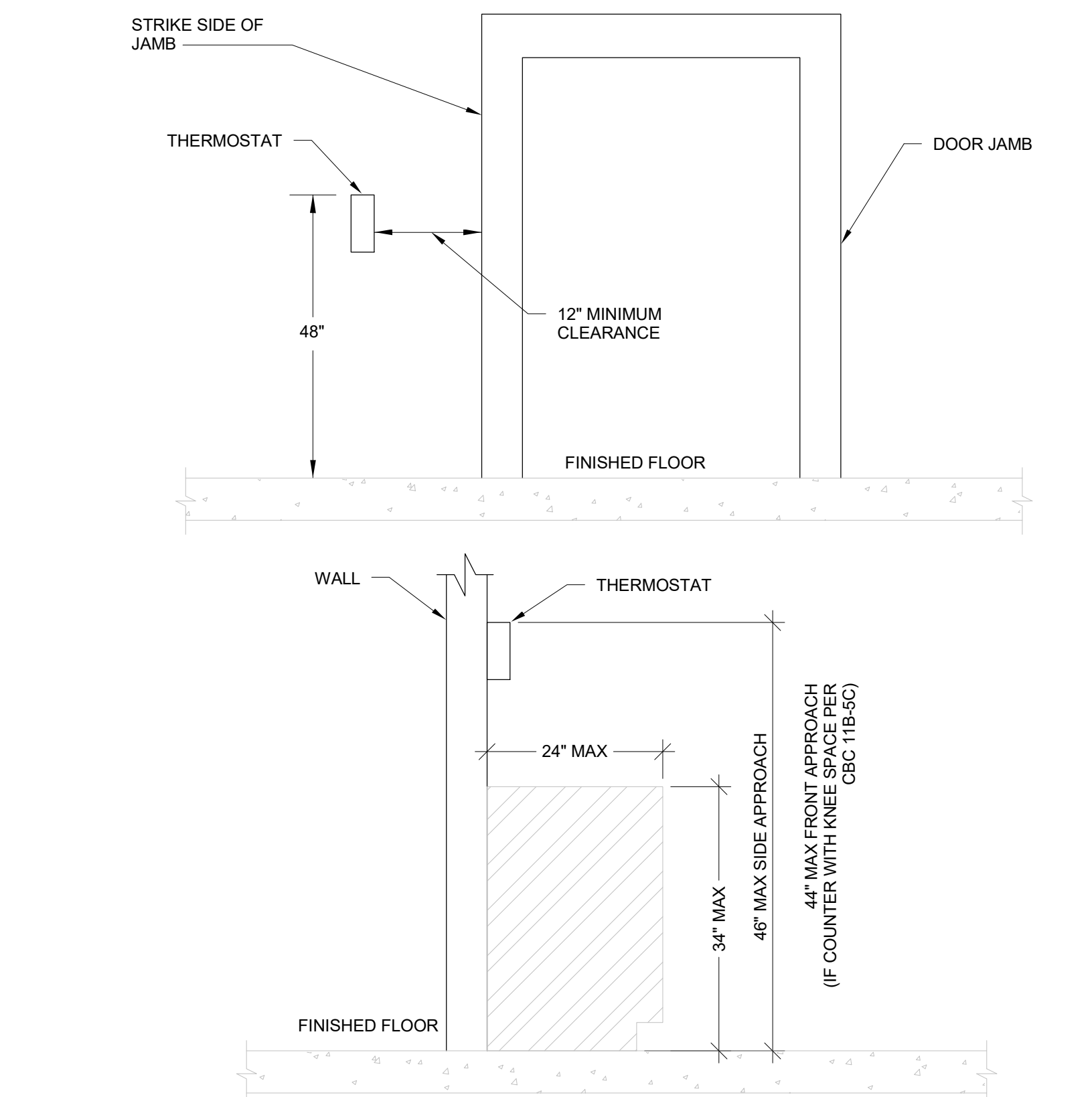
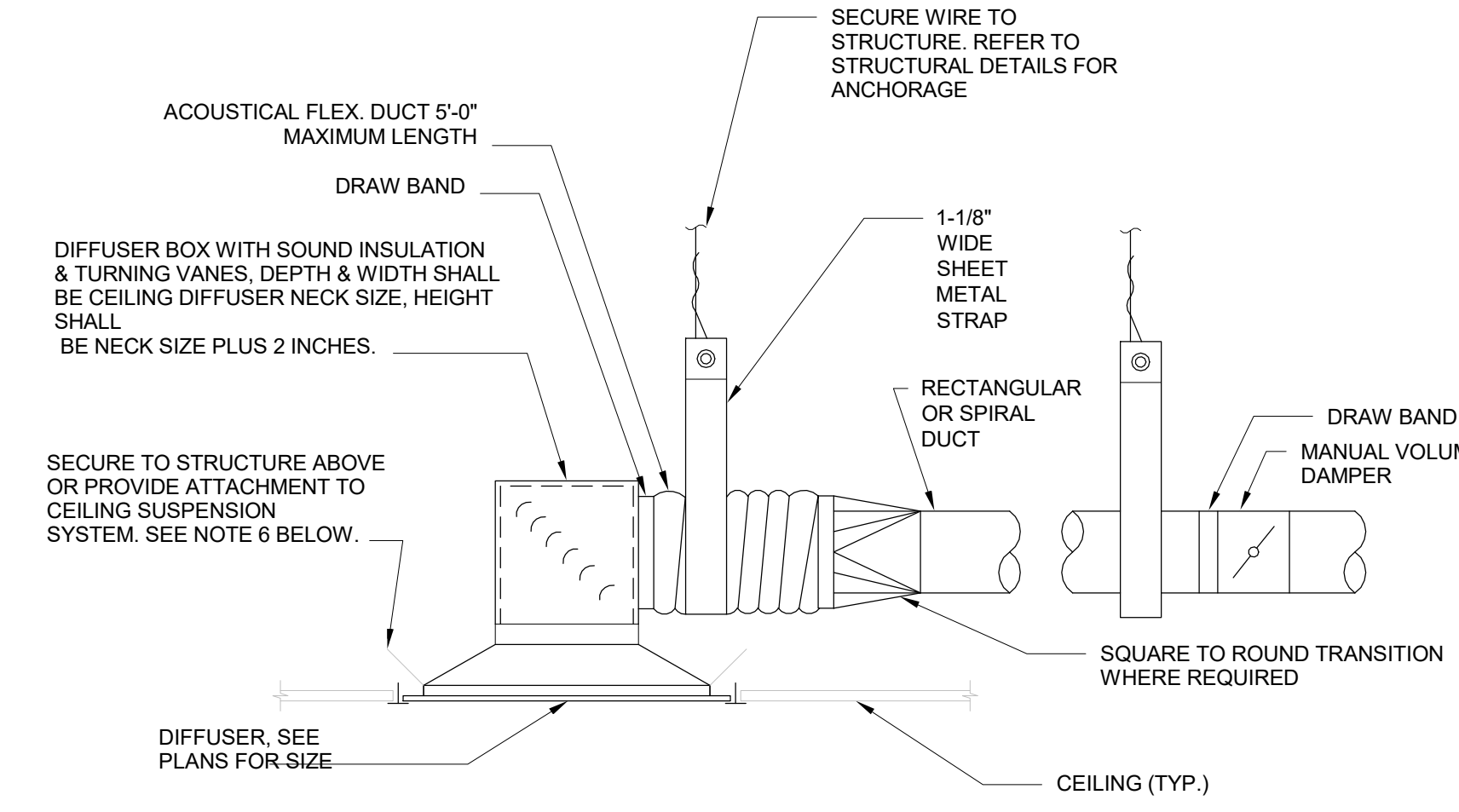
BC BUILDING CONTROLLER

AAC ADVANCE APPLICATION CONTROLLER

ASC APPLICATION SPECIFIC CONTROLLER

OWS OPERATOR WORK STATION

EMS ENERGY MANAGEMENT SYSTEM



CONTROL AND WIRING LEGEND

SCALE	11
N.T.S.	

SIDETAP CEILING DIFFUSER INSTALLATION

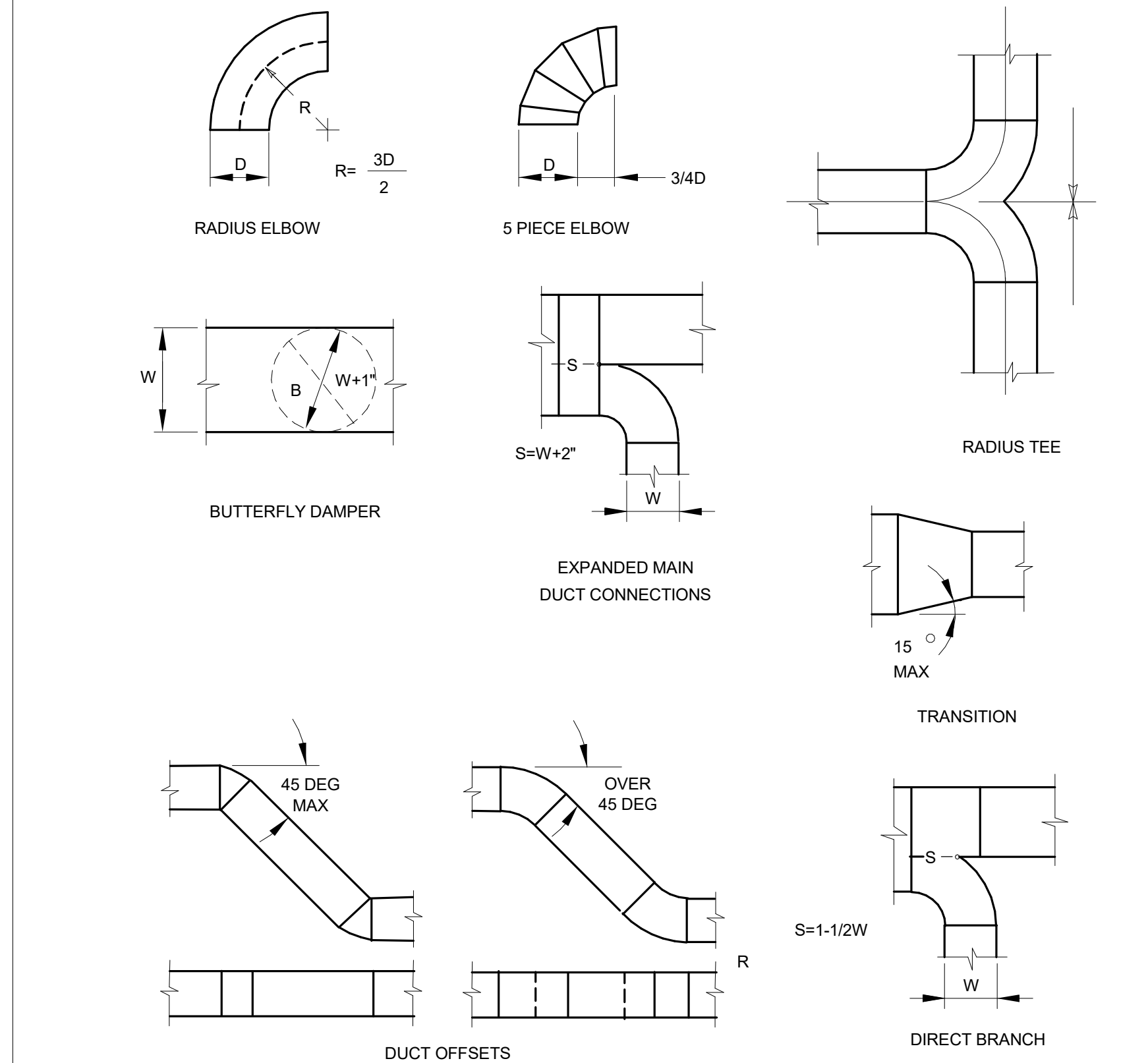
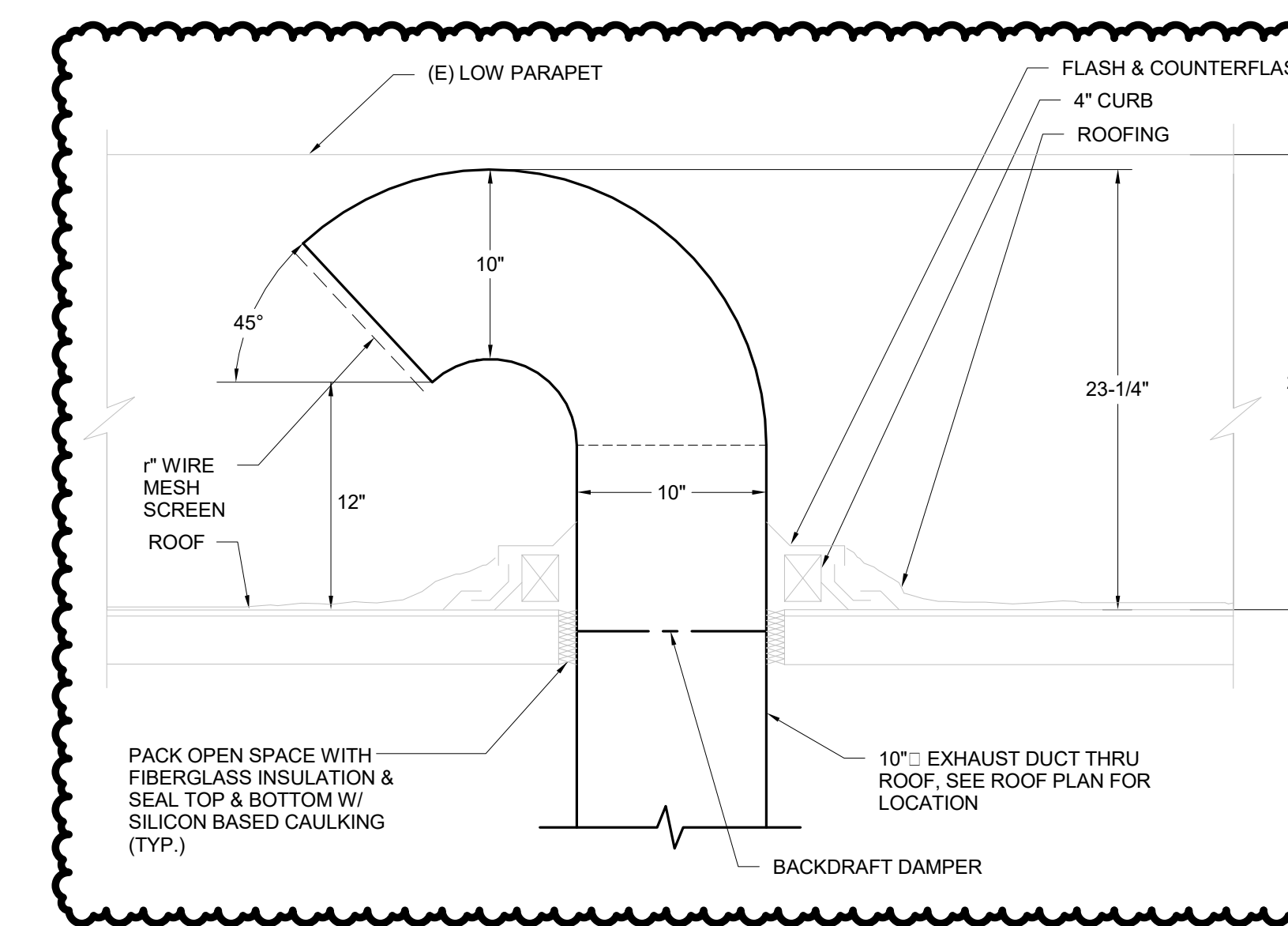
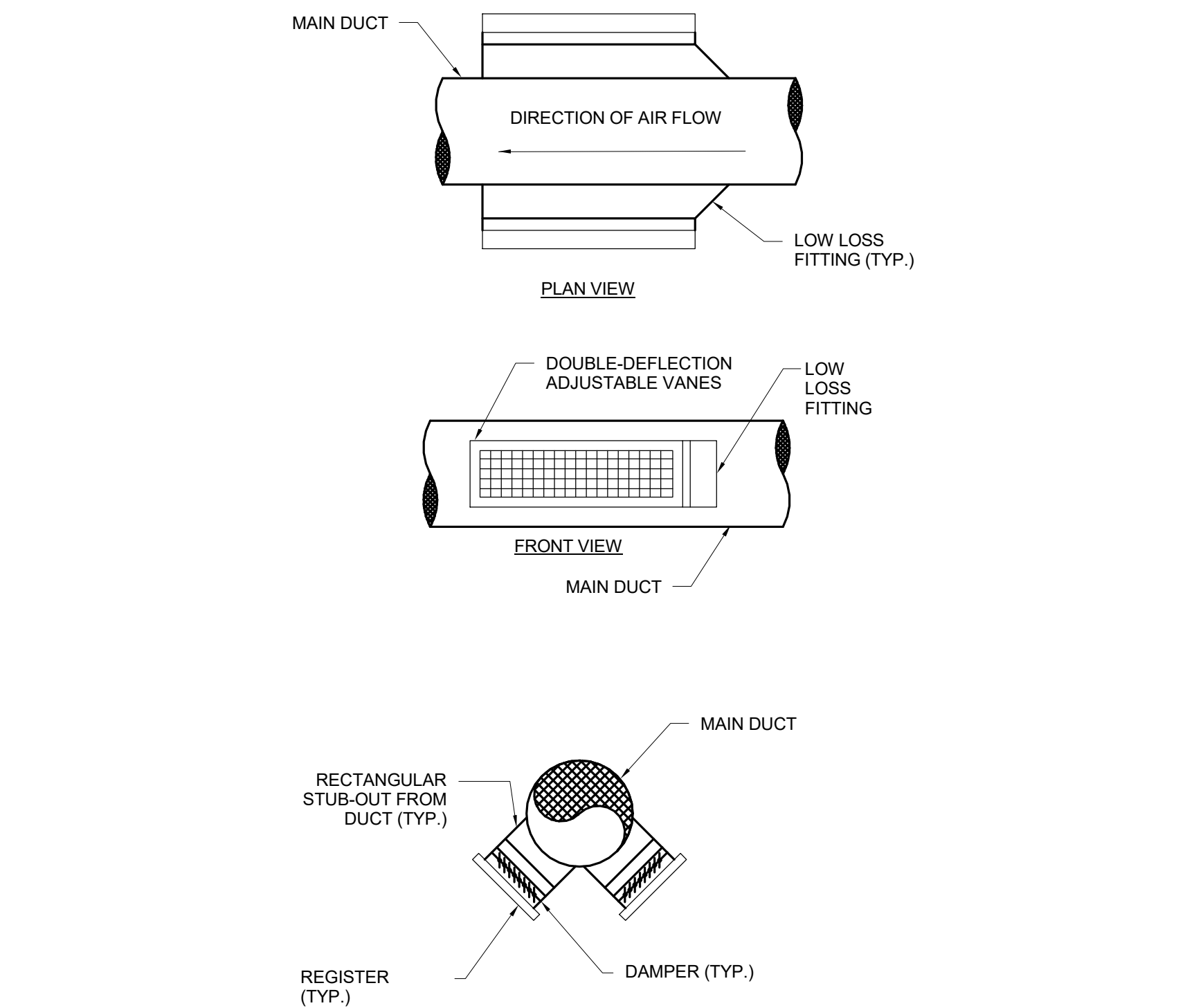
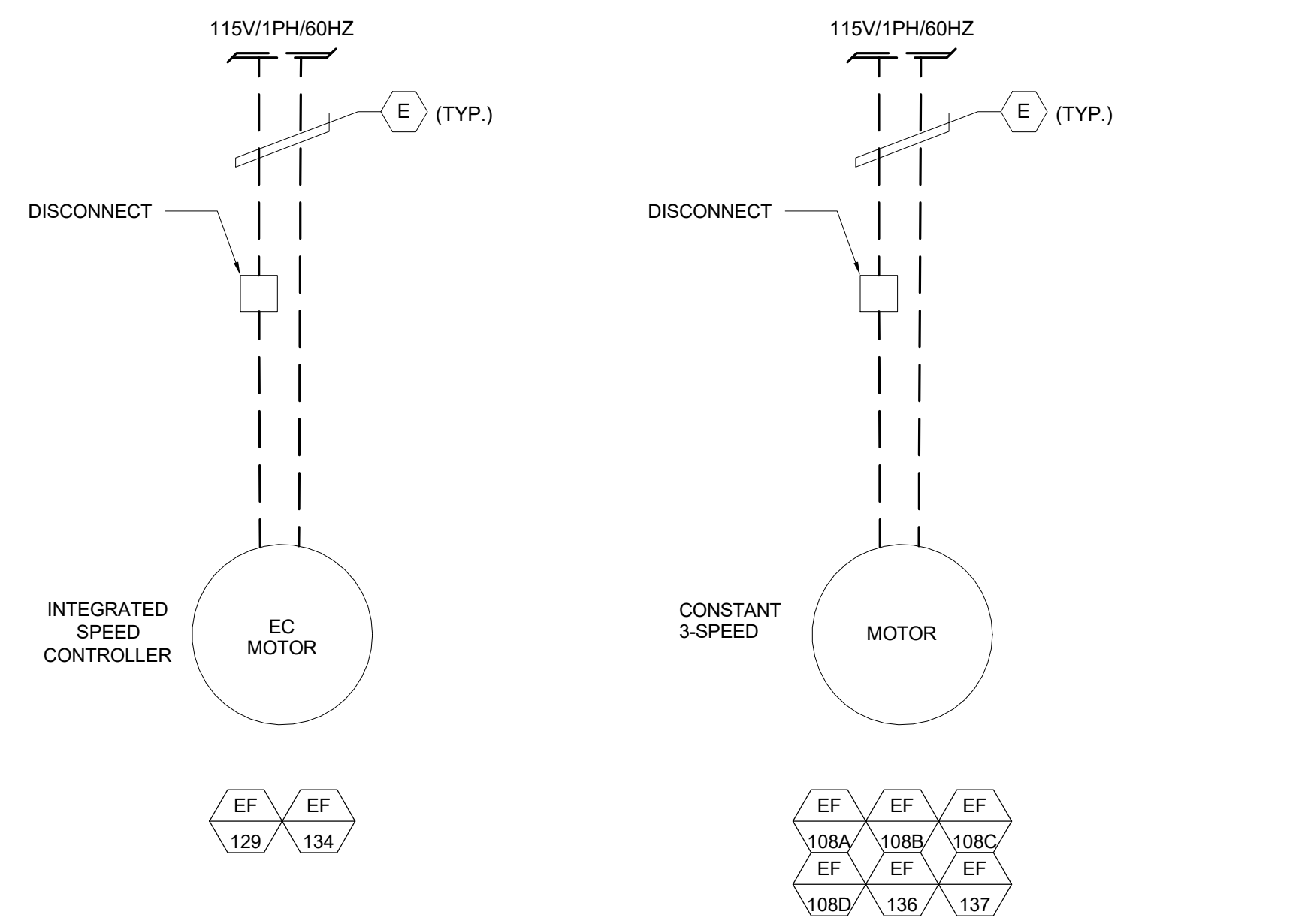
SCALE	8
N.T.S.	

THERMOSTAT INSTALLATION

SCALE	5
N.T.S.	

DUCT HANGER DETAIL

SCALE	2
N.T.S.	



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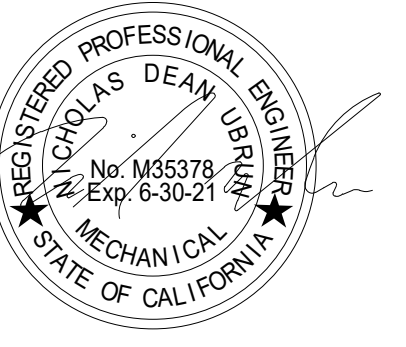
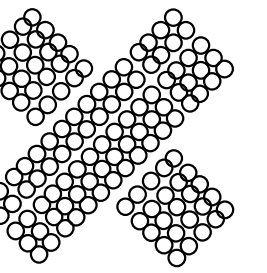
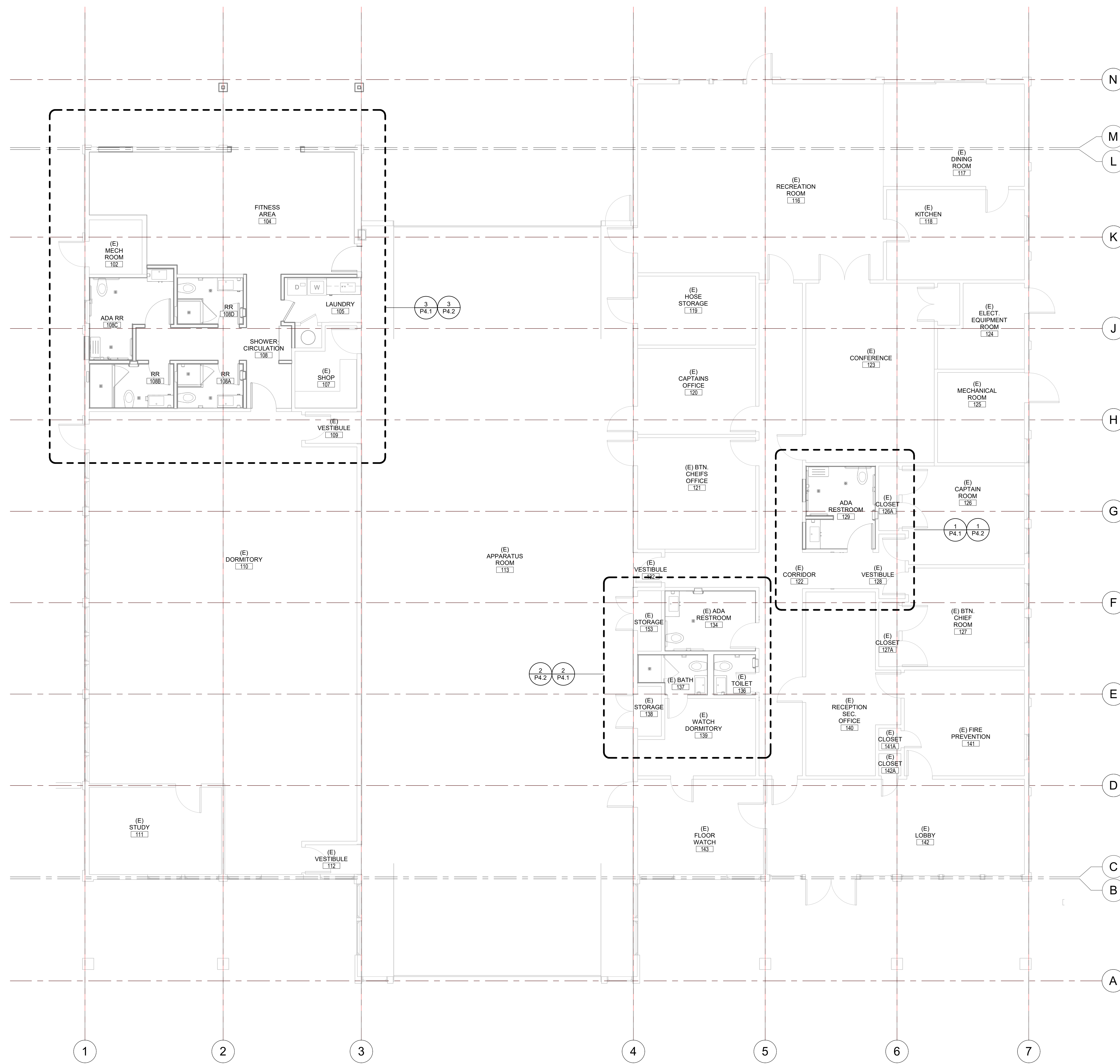
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Job No: 122-06-10
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Scale:

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MECHANICAL DETAILS



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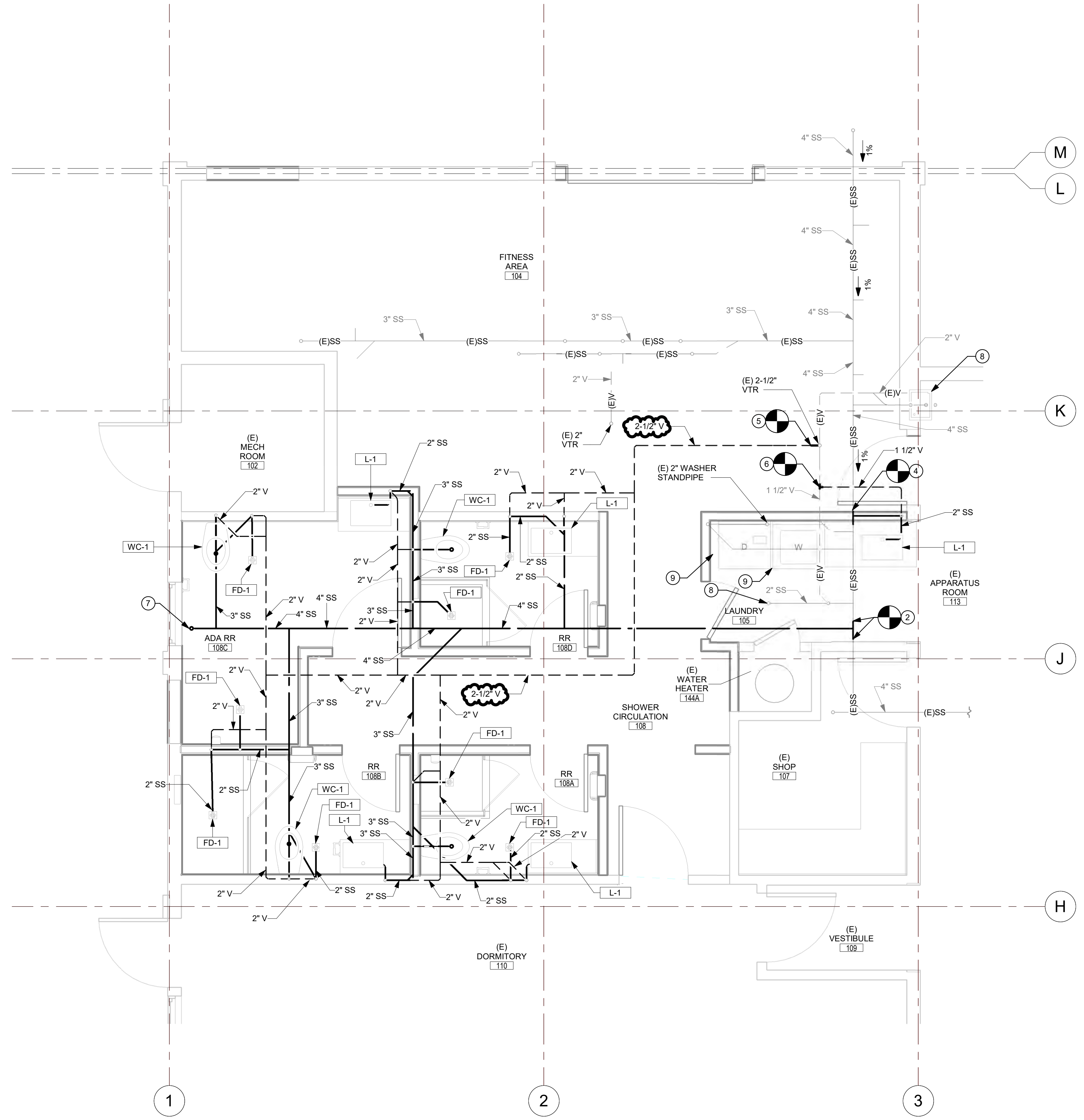
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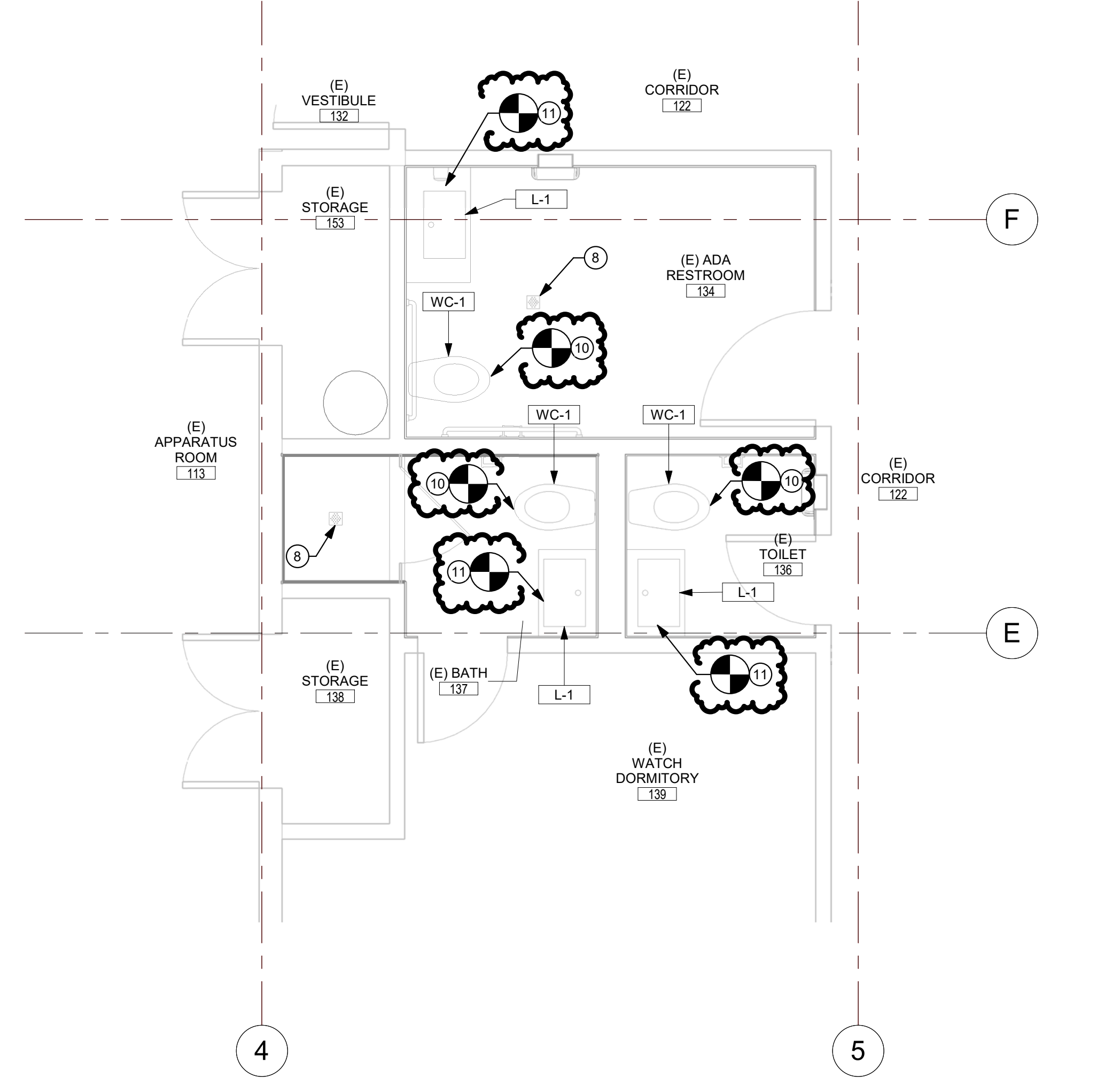
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FIXTURE TYPE	QUANTITY		EXISTING TOTAL DRAINAGE FIXTURE UNIT
	NEW	EXISTING	
WATER CLOSET	0	3	12
LAVATORY	0	4	4
SINK	0	1	2
KITCHEN SINK	0	0	-
FLOOR DRAIN	0	0	8
SERVICE SINK	0	0	-
URINAL	0	3	6
CLOTHES WASHER	0	1	3
DRINKING FOUNTAIN	0	1	0.5
EXISTING TOTAL CONNECTED LOAD (DFU)			35.5
SANITARY WASTE SERVICE (INCH)			4
TABLE 703.2: MAXIMUM UNIT LOADING (DFU)			172

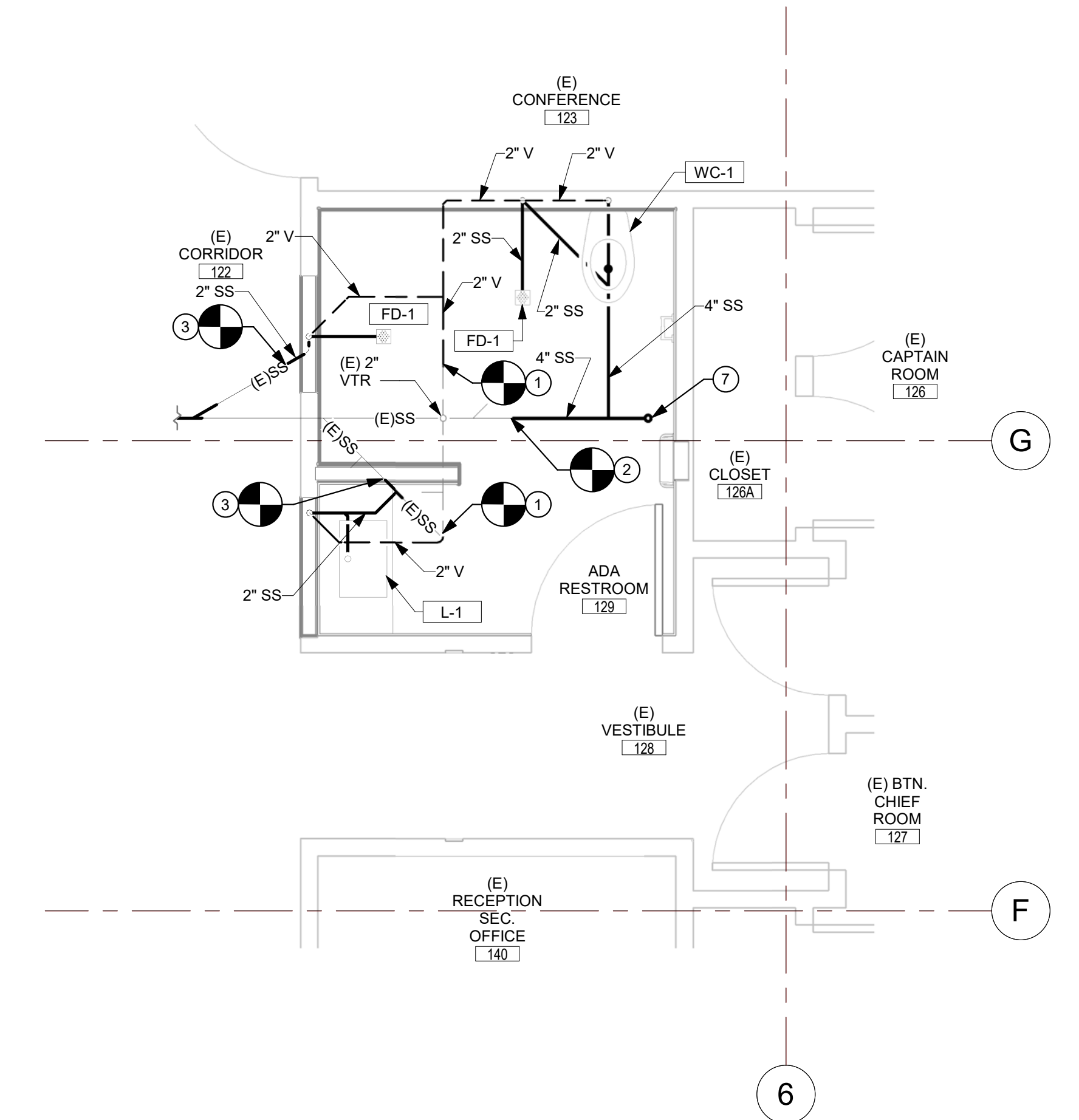
FIXTURE TYPE	QUANTITY		NEW TOTAL DRAINAGE FIXTURE UNIT
	NEW	EXISTING	
WATER CLOSET	4	0	16
LAVATORY	5	0	5
SINK	0	0	-
KITCHEN SINK	0	0	-
FLOOR DRAIN	8	1	18
SERVICE SINK	0	0	-
URINAL	0	0	-
CLOTHES WASHER	0	1	3
DRINKING FOUNTAIN	0	1	0.5
NEW TOTAL CONNECTED LOAD (DFU)			42.5
SANITARY WASTE SERVICE (INCH)			4
TABLE 703.2: MAXIMUM UNIT LOADING (DFU)			172



ENLARGED PLAN - SHOWER AND FITNESS - SANITARY WASTE AND VENT
3/8" = 1'-0" 3



ENLARGED PLAN - DOUBLE RESTROOM - SANITARY WASTE AND VENT
3/8" = 1'-0" 2



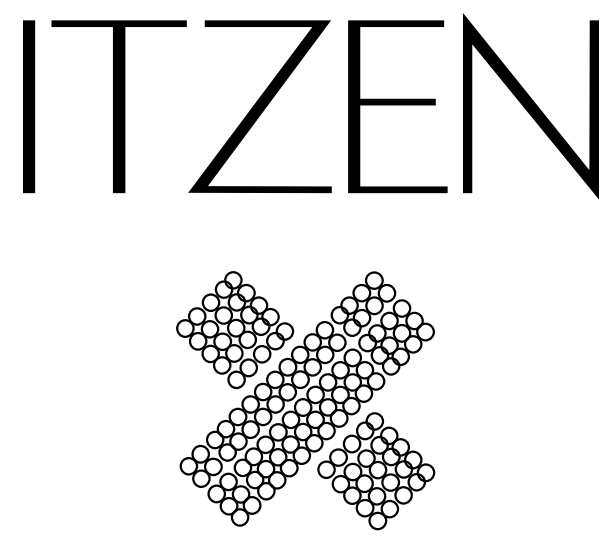
ENLARGED PLAN - ADA RESTROOM - SANITARY WASTE AND VENT
3/8" = 1'-0" 1

- ### GENERAL NOTES
- DRAWINGS ARE DIAGRAMMATIC IN NATURE. ACTUAL EXISTING CONDITIONS SHALL BE FIELD VERIFIED PRIOR TO CONSTRUCTION EFFORT.
 - SHUTDOWNS TO THE BUILDING SHALL BE COORDINATED WITH THE OWNER'S REPRESENTATIVE.
- ### INSTALLATION NOTES
- POINT OF CONNECTION NEW 2" SANITARY VENT TO EXISTING 2" SANITARY VENT
 - POINT OF CONNECTION NEW 4" SANITARY WASTE TO EXISTING 4" SANITARY WASTE. CONTRACTOR SHALL PROVIDE ALLOWANCE TO SAWCUT EXISTING SLAB. PATCH BACK AND REPAIR AS REQUIRED.
 - POINT OF CONNECTION NEW 2" SANITARY WASTE TO EXISTING 2" SANITARY WASTE. CONTRACTOR SHALL PROVIDE ALLOWANCE TO SAWCUT EXISTING SLAB. PATCH BACK AND REPAIR AS REQUIRED.
 - POINT OF CONNECTION NEW 2" SANITARY WASTE TO EXISTING 4" SANITARY WASTE. CONTRACTOR SHALL PROVIDE ALLOWANCE TO SAWCUT EXISTING SLAB. PATCH BACK AND REPAIR AS REQUIRED.
 - POINT OF CONNECTION NEW 2" SANITARY VENT TO EXISTING 2-1/2" SANITARY VENT.
 - POINT OF CONNECTION NEW 1-1/2" SANITARY VENT TO EXISTING 1-1/2" SANITARY VENT.
 - PROVIDE LINE SIZE FLOOR CLEANOUT.
 - EXISTING PLUMBING FIXTURE TO REMAIN.
 - OWNER FURNISHED. CONTRACTOR INSTALLED WASHING AND DRYER. RECONNECT WASHER DRAIN TO EXISTING 2" WASHER STANDPIPE NEARBY.
 - POINT OF CONNECTION NEW WATER CLOSET TO EXISTING SANITARY WASTE PIPING IN WALL. PROVIDE NEW ANGLE STOP AND FLEX CONNECTOR.
 - POINT OF CONNECTION NEW LAVATORY AND FAUCET TO EXISTING COLD AND HOT WATER PIPING IN WALL. PROVIDE NEW ANGLE STOP, P-TRAP, AND FLEX CONNECTOR.

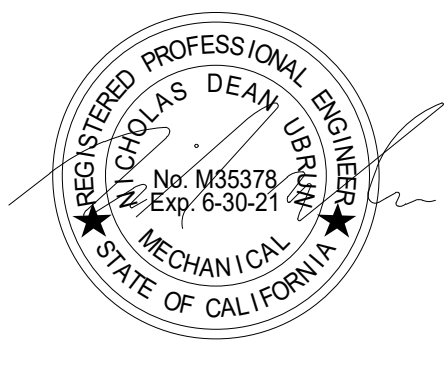
FIXTURE TYPE	QUANTITY		EXISTING TOTAL DRAINAGE FIXTURE UNIT
	NEW	EXISTING	
WATER CLOSET	0	1	4
LAVATORY	0	1	1
SINK	0	1	2
KITCHEN SINK	0	0	-
FLOOR DRAIN	0	1	2
SERVICE SINK	0	0	-
URINAL	0	0	-
CLOTHES WASHER	0	0	-
DRINKING FOUNTAIN	0	0	-
EXISTING TOTAL CONNECTED LOAD (DFU)			9
SANITARY WASTE SERVICE (INCH)			4
TABLE 703.2: MAXIMUM UNIT LOADING (DFU)			172

FIXTURE TYPE	QUANTITY		NEW TOTAL DRAINAGE FIXTURE UNIT
	NEW	EXISTING	
WATER CLOSET	1	0	4
LAVATORY	1	0	1
SINK	0	0	-
KITCHEN SINK	0	0	-
FLOOR DRAIN	2	0	4
SERVICE SINK	0	0	-
URINAL	0	0	-
CLOTHES WASHER	0	0	0
DRINKING FOUNTAIN	0	0	-
NEW TOTAL CONNECTED LOAD (DFU)			9
SANITARY WASTE SERVICE (INCH)			4
TABLE 703.2: MAXIMUM UNIT LOADING (DFU)			172

[Pattern]	(E) 1-HOUR RATED ASSEMBLY
[Pattern]	(N) 1-HOUR RATED ASSEMBLY
[Pattern]	(E) NON-RATED STUD WALL
[Pattern]	(N) NON-RATED STUD WALL
[Pattern]	(E) NON-RATED ASSEMBLY



Studio: 313 N. Birch, Suite 200 Santa Ana CA 92701 714-716-5042 sayhello@ITZEN.com
 mailing: 1800 N. Bristol Street #C-418 Santa Ana CA 92705 www.ITZEN.com



OCFA FIRE STATION #4

2 CALIFORNIA AVE
IRVINE, CA 92612
ORANGE COUNTY FIRE AUTHORITY

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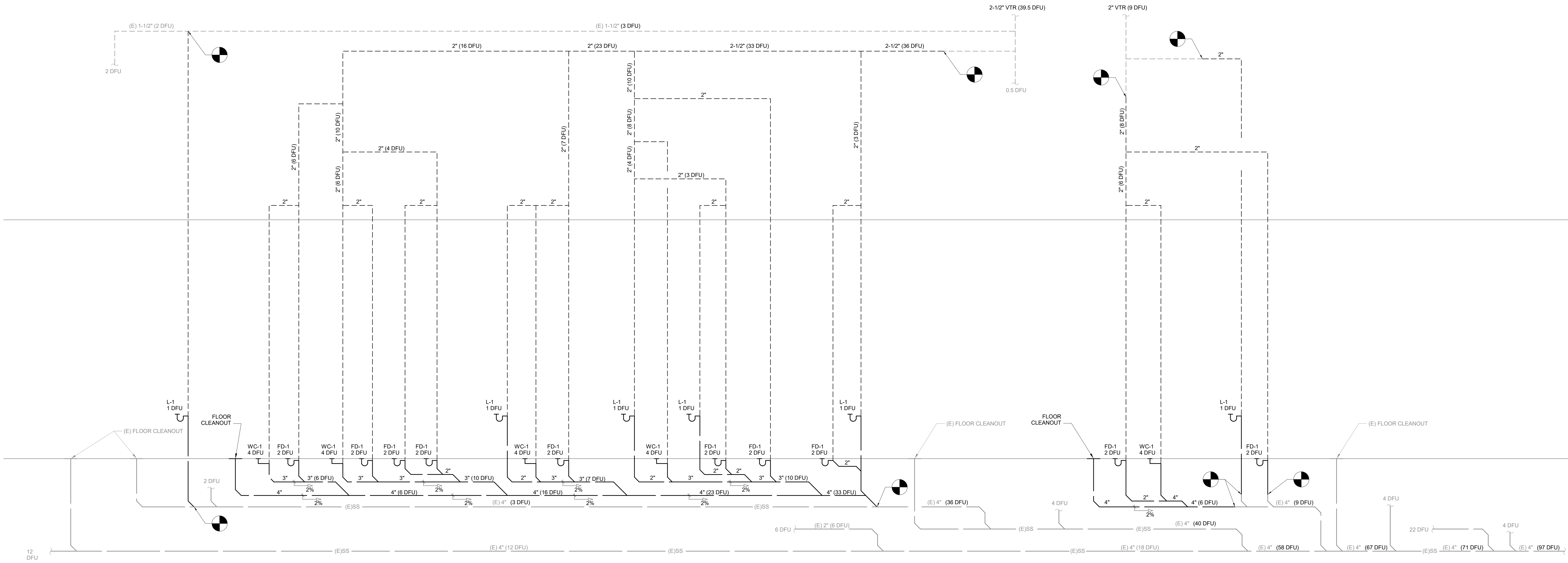
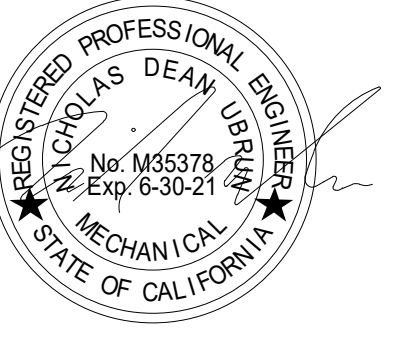
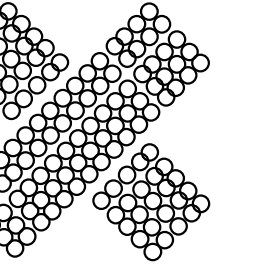
REV	DESCRIPTION	DATE
1	AGENCY RESUBMITTAL #1	11/16/22

Job No. 122-06-10
Date 06-30-22
Drawn/Checked by ET/DM
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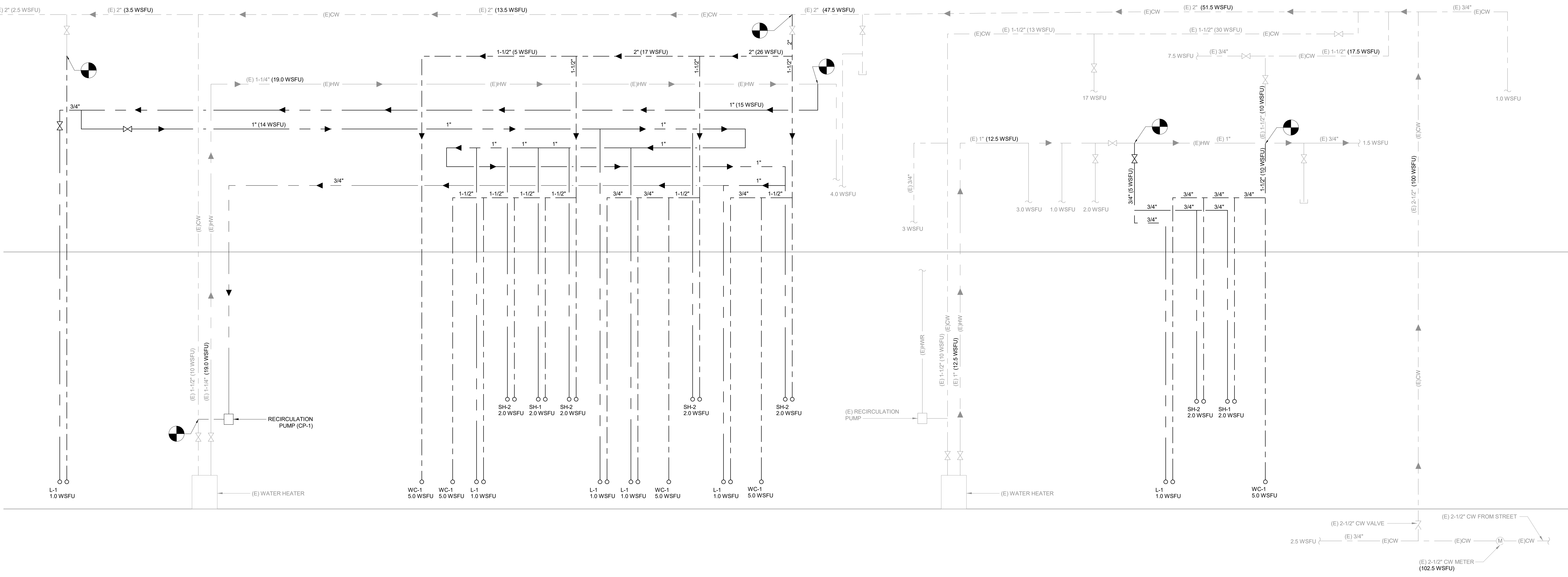
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ENLARGED SANITARY WASTE/VENT PLUMBING PLAN

P4.2



SANITARY WASTE AND VENT RISER DIAGRAM SCALE 1 N.T.S



DOMESTIC COLD AND HOT WATER RISER DIAGRAM SCALE 2 N.T.S

OCFA FIRE STATION #4

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REV	DESCRIPTION	DATE
1	AGENCY RESUBMITTAL #1	11/16/22

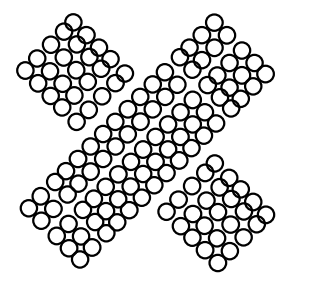
Job. No. 122-06-10 Date: 06-30-22 Drawn/Checked by: Author Scale:

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PLUMBING RISER DIAGRAMS

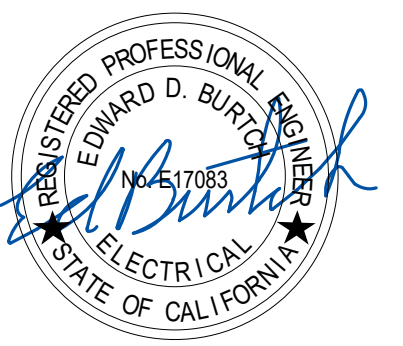
P5.0



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OCFA FIRE STATION #4

2 CALIFORNIA AVE IRVINE, CA 92612

ORANGE COUNTY FIRE AUTHORITY

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Table with 3 columns: REV, DESCRIPTION, DATE. Row 1: 1, AGENCY RESUBMITTAL #1, 11/17/2022

Job No. 122-06-10 Date 06-30-22 Drawn/Checked by Author Scale

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STATE OF CALIFORNIA Indoor Lighting NRCC-LTI-E (Created 7/19) CERTIFICATE OF COMPLIANCE Project Name: OCFA Fire Station #4 Report Page: Page 3 of 7 Project Address: 2 California Ave, Irvine, CA 92612 Date Prepared: 11/17/2022

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: http://www.energy.ca.gov/title24/2019standards July 2019

STATE OF CALIFORNIA Indoor Lighting NRCC-LTI-E (Created 7/19) CERTIFICATE OF COMPLIANCE Project Name: OCFA Fire Station #4 Report Page: Page 6 of 7 Project Address: 2 California Ave, Irvine, CA 92612 Date Prepared: 11/17/2022

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: http://www.energy.ca.gov/title24/2019standards July 2019

STATE OF CALIFORNIA Indoor Lighting NRCC-LTI-E (Created 7/19) CERTIFICATE OF COMPLIANCE Project Name: OCFA Fire Station #4 Report Page: Page 6 of 7 Project Address: 2 California Ave, Irvine, CA 92612 Date Prepared: 11/17/2022

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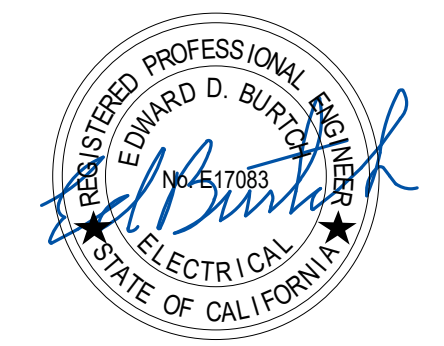
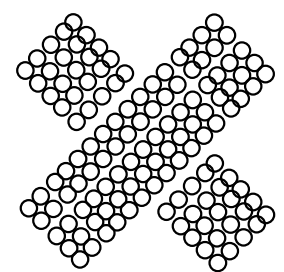
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OCFA FIRE STATION #4

2 CALIFORNIA AVE IRVINE, CA 92612 ORANGE COUNTY FIRE AUTHORITY

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Job No. 122-06-10
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OVERALL FIRST FLOOR ELECTRICAL DEMOLITION PLAN

ED2.1

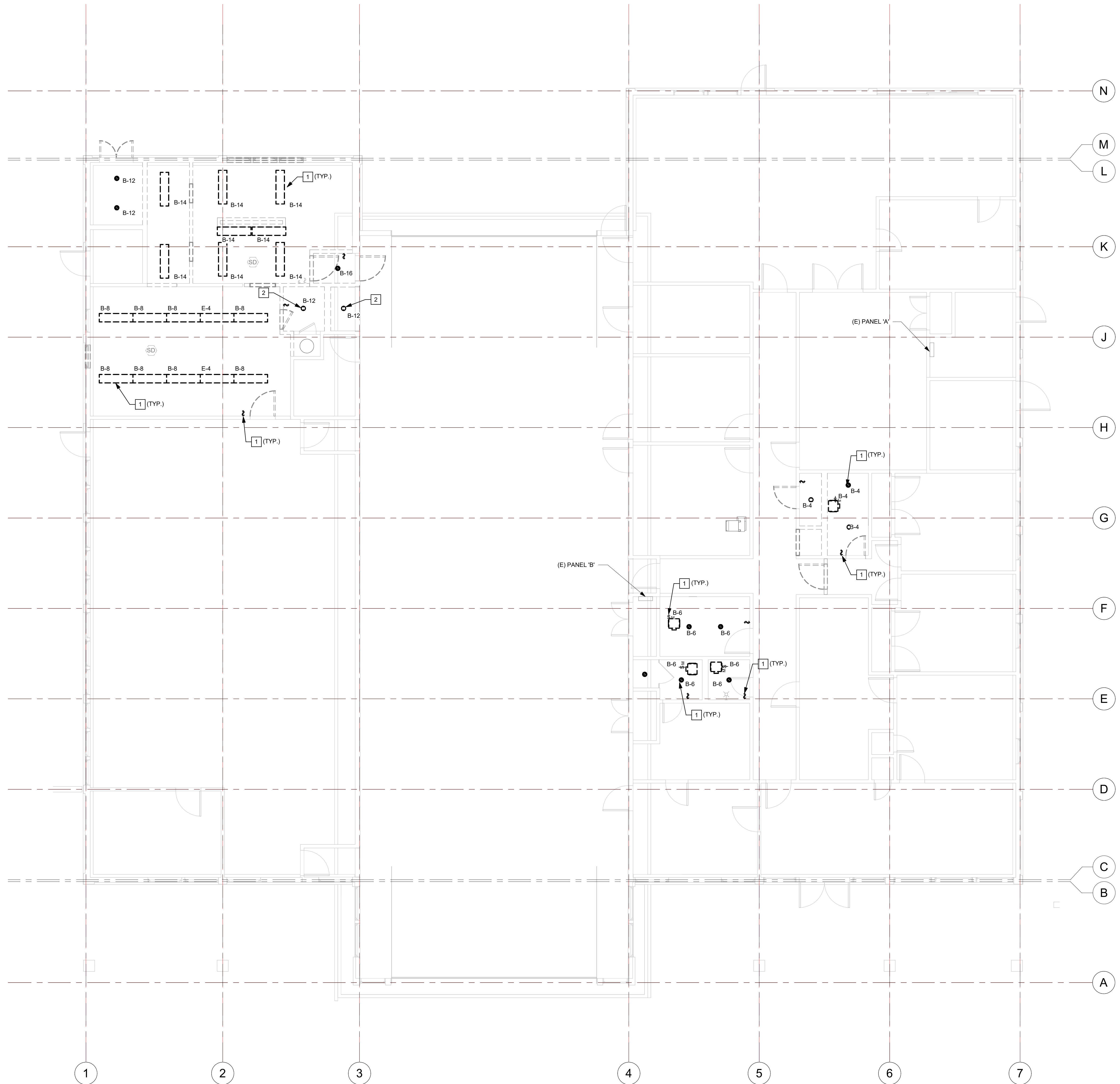
GENERAL NOTES

1. ELECTRICAL ENGINEERING FOR THIS PROJECT IS BASED ON EXISTING DRAWINGS DATED SEPTEMBER 20, 1968, AND A FIELD VISIT OF THE ELECTRICAL SYSTEM. IN CASE OF ANY DISCREPANCIES WITH EXISTING FIELD CONDITIONS, ELECTRICAL CONTRACTOR SHALL VERIFY THE EXACT DIFFERENCES AND NOTIFY THE ELECTRICAL ENGINEER FOR POSSIBLE REVISION TO THESE DOCUMENTS.
2. OUTAGES TO EXISTING ELECTRICAL AND SIGNAL SERVICE SHALL BE SCHEDULED IN ADVANCE WITH THE OWNER'S REPRESENTATIVE.

DEMOLITION NOTES

1. DISCONNECT AND REMOVE EXISTING POWER CONNECTIONS, CONDUITS, WIRING AND SUPPORTS OF EXISTING ELECTRICAL DEVICES WITHIN THE AREA OF DEMOLITION AS DEFINED ON THE ARCHITECTURAL PLANS BACK TO NEAREST J-BOX ABOVE CEILING. MAINTAIN BRANCH CIRCUIT CONTINUITY FOR DOWN STREAM AND/OR ADJACENT DEVICES TO REMAIN.
2. EXISTING DEVICE TO REMAIN AND BE PROTECTED IN PLACE.
3. DISCONNECT AND REMOVE EXISTING POWER CONNECTIONS, CONDUITS, WIRING AND SUPPORTS OF EXISTING ELECTRICAL DEVICES WITHIN THE ROOM BACK TO NEAREST J-BOX ABOVE CEILING. MAINTAIN BRANCH CIRCUIT CONTINUITY FOR DOWN STREAM AND/OR ADJACENT DEVICES TO REMAIN.



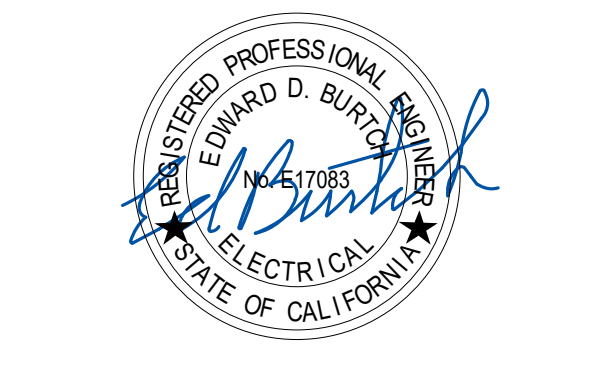
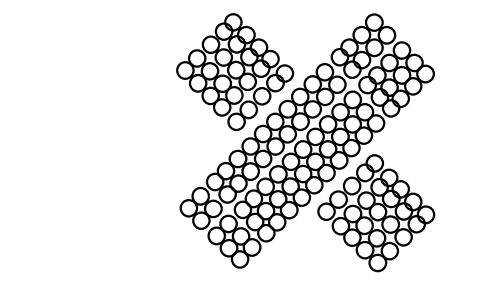


GENERAL NOTES

- 1. ELECTRICAL ENGINEERING FOR THIS PROJECT IS BASED ON EXISTING DRAWINGS DATED SEPTEMBER 20, 1968, AND A FIELD VISIT OF THE ELECTRICAL SYSTEM. IN CASE OF ANY DISCREPANCIES WITH EXISTING FIELD CONDITIONS, ELECTRICAL CONTRACTOR SHALL VERIFY THE EXACT DIFFERENCES AND NOTIFY THE ELECTRICAL ENGINEER FOR POSSIBLE REVISION TO THESE DOCUMENTS.
- 2. OUTAGES TO EXISTING ELECTRICAL AND SIGNAL SERVICE SHALL BE SCHEDULED IN ADVANCE WITH THE OWNER'S REPRESENTATIVE.

DEMOLITION NOTES

- 1 DISCONNECT AND REMOVE EXISTING CONTROL AND POWER CONNECTIONS, CONDUITS, WIRING AND SUPPORTS OF EXISTING ELECTRICAL DEVICES WITHIN THE AREA OF DEMOLITION AS DEFINED ON THE ARCHITECTURAL PLANS BACK TO NEAREST J-BOX ABOVE CEILING. MAINTAIN BRANCH CIRCUIT/CONTROL CIRCUIT CONTINUITY FOR DOWN STREAM AND/OR ADJACENT DEVICES TO REMAIN.
- 2 EXISTING LIGHT FIXTURE TO REMAIN AND BE PROTECTED IN PLACE. REMOVE FROM EXISTING LIGHTING CONTROLS AND CONNECT TO MAIN ROOM LIGHTING CONTROLS.

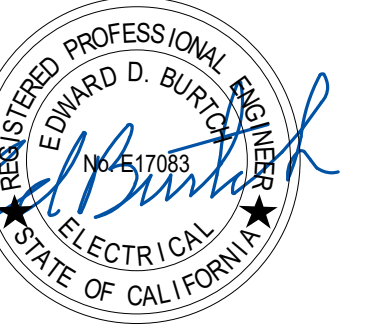
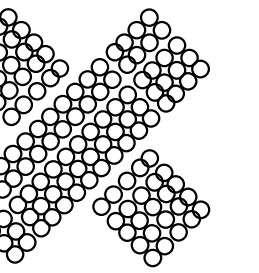


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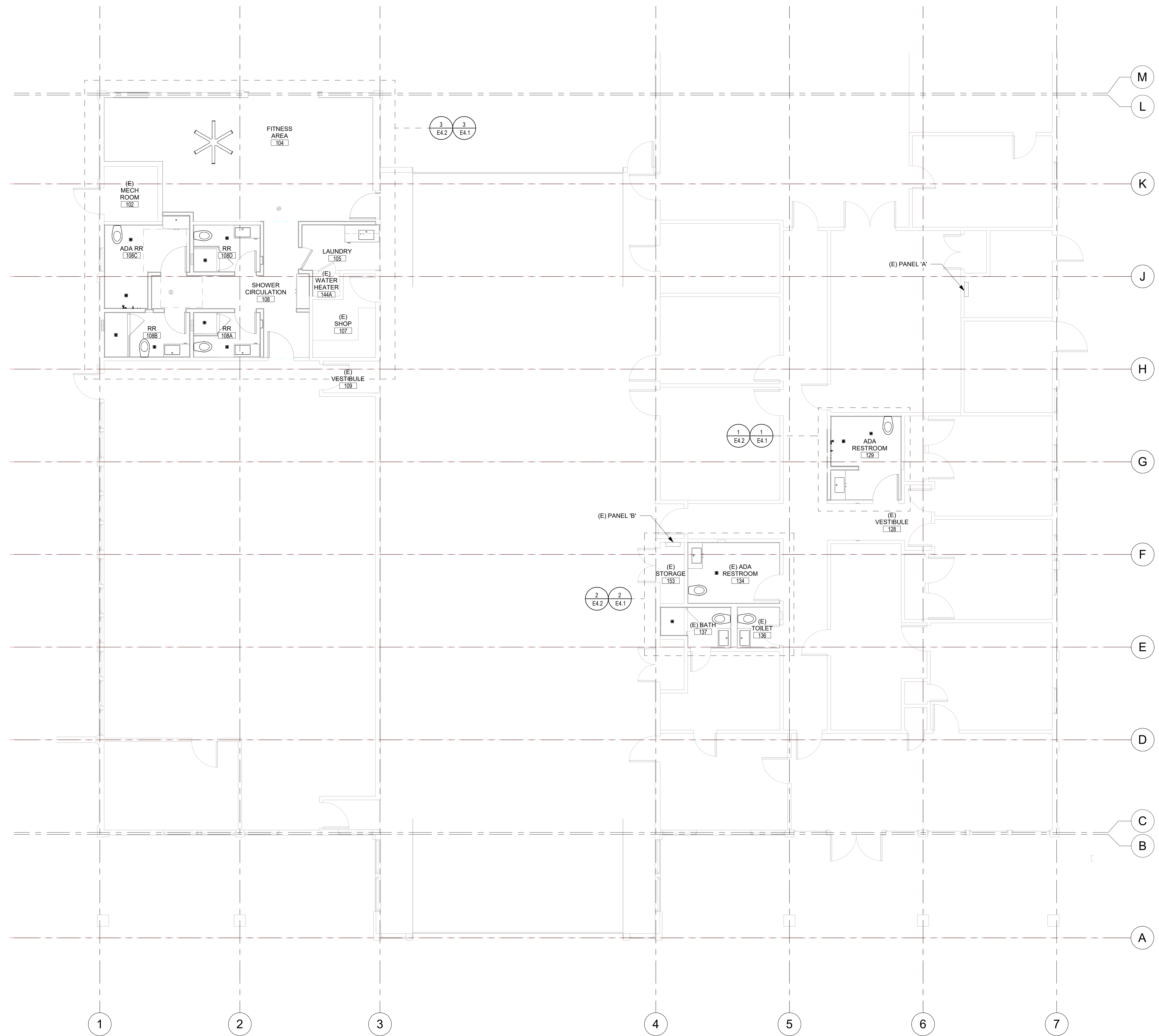
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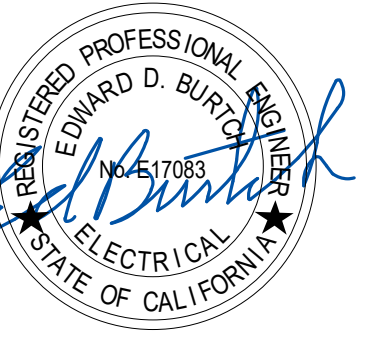
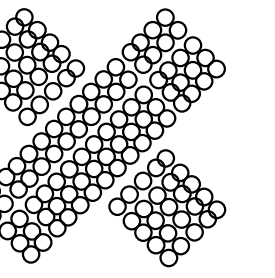
FIRST FLOOR OVERALL ELECTRICAL POWER PLAN

E2.1

GENERAL NOTES

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1	AGENCY RESUBMITTAL #1	11/18/22

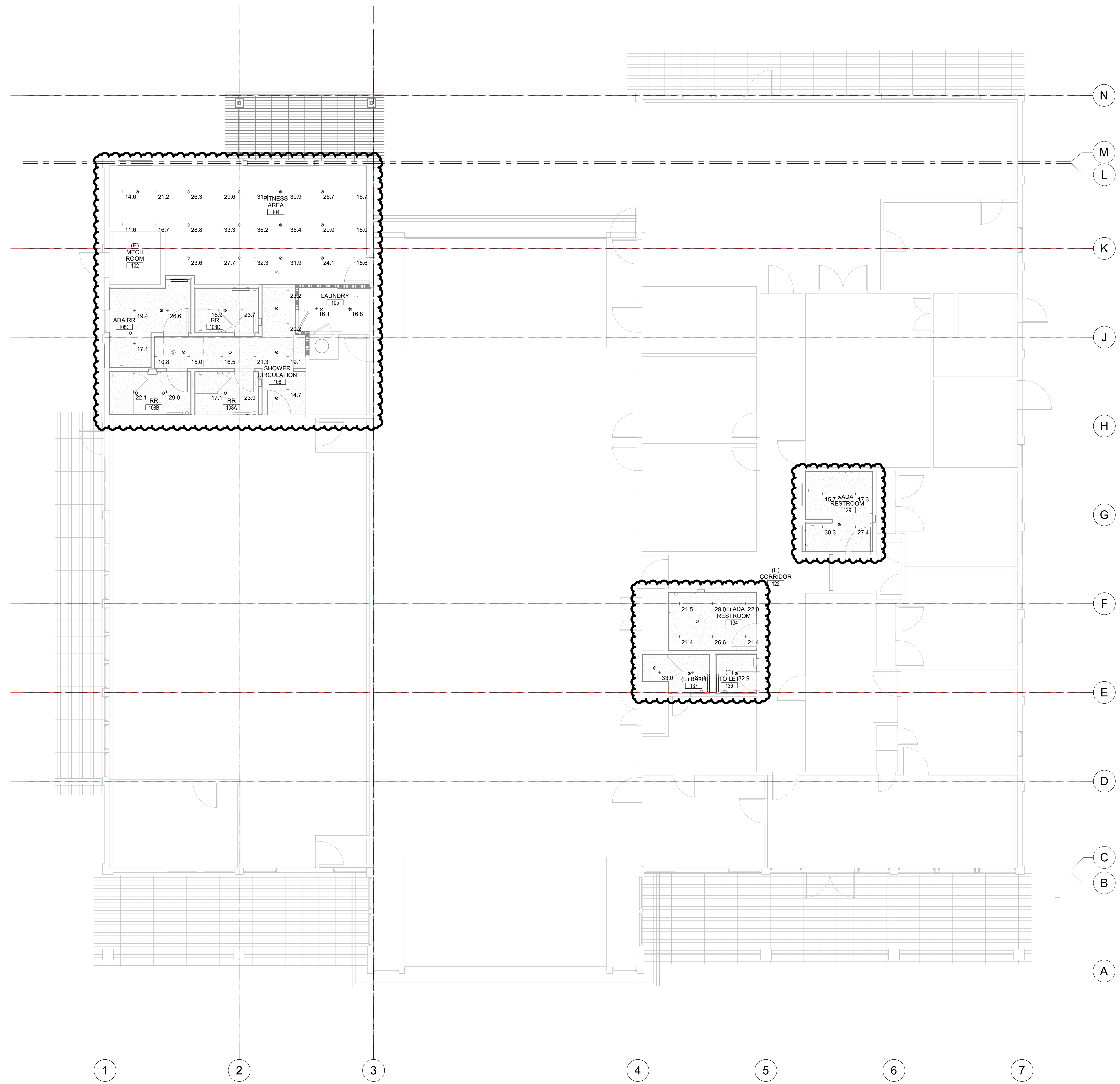
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Date	06-30-22
Drawn/Checked by	Author
Scale	3/16" = 1'-0"

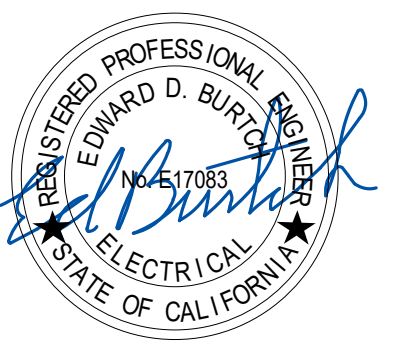
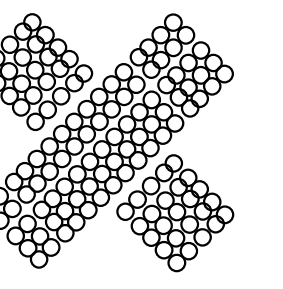
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- TABLES, EQUIPMENT, PARTITIONS, STAIRS, SLOPE AND OTHER OBSTRUCTIONS ARE NOT INCLUDED IN THE CALCULATION RESULTS UNLESS DRAWN IN MODEL.
- THE LIGHT FIXTURE USED FOR THE PHOTOMETRIC STUDY MAY VARY FROM THE LIGHT FIXTURE SCHEDULE ON SHEET E0.01. DUE TO THE AVAILABILITY OF IES FILES, REFER TO SHEET E0.01 FOR LIGHT FIXTURE SCHEDULE FOR THE COMPLETE SPECIFICATION AND MODEL NUMBER.
- LUMINAIRE DATA IS OBTAINED ACCORDING TO IES PROCEDURES UNDER LABORATORY CONDITIONS. FIELD RESULTS MAY DIFFER FROM COMPUTER MODEL DUE TO MANY FACTORS INCLUDING BUT NOT LIMITED TO AMBIENT TEMPERATURE, LINE VOLTAGE VARIATION, INSTALLATION, REFLECTANCE AND OTHER SITE SPECIFIC CONDITIONS.

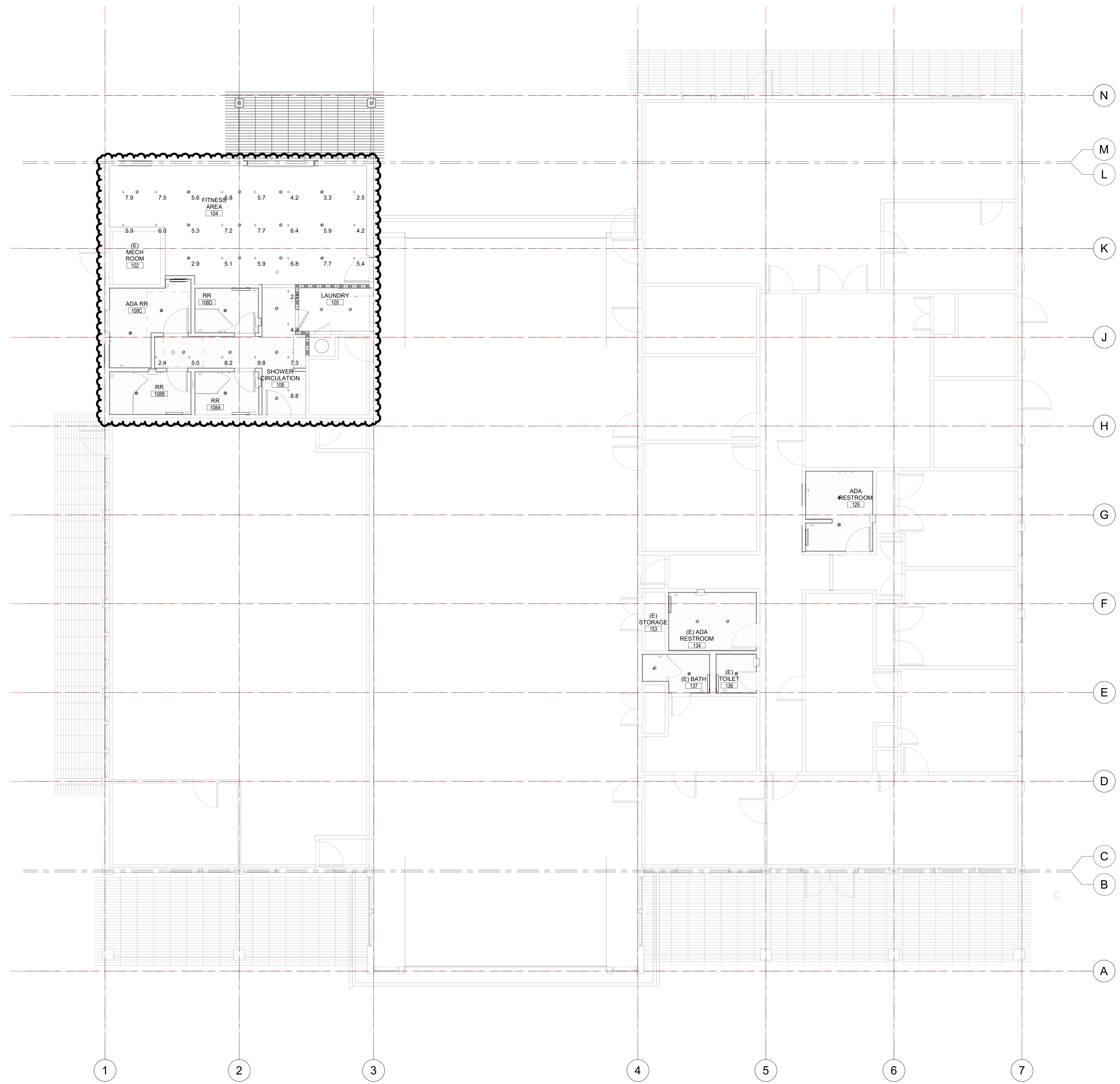
PHOTOMETRIC STATISTICS				
Room	Avg	Max	Min	Max / Min
FITNESS AREA 104	23.4	36.2	10.8	3.4:1
RR 108A	20.5	23.9	17.1	1.4:1
RR 108B	25.6	29.0	22.1	1.3 : 1
RR 108C	21.0	26.6	17.1	1.6:1
RR 108D	20.3	23.7	16.9	1.4:1
RR 129	22.7	30.3	15.7	1.9:1
RR 134	23.6	29.0	21.4	1.4:1
RR 136	32.9	32.9	32.9	1.0 : 1
RR 137	36.8	36.9	36.7	1.0 : 1
LAUNDRY 150	34.0	35.1	33.0	1.1:1
EM FITNESS AREA 104	5.8	9.8	2.2	4.5:1





PHOTOMETRIC NOTES

1. CALCULATION POINTS ARE 5' X 5' TYPICAL ON CENTER SPACINGS AT HEIGHT INDICATED IN STATISTICS. NORMAL CALCULATION POINTS ARE MEASURED AT 0'-0" AFF. EMERGENCY CALCULATION POINTS ARE MEASURED AT FLOOR HEIGHT.
2. TABLES, EQUIPMENT, PARTITIONS, STAIRS, SLOPE AND OTHER OBSTRUCTIONS ARE NOT INCLUDED IN THE CALCULATION RESULTS UNLESS DRAWN IN MODEL.
3. THE LIGHT FIXTURE USED FOR THE PHOTOMETRIC STUDY MAY VARY FROM THE LIGHT FIXTURE SCHEDULE ON SHEET E0.01, DUE TO THE AVAILABILITY OF IES FILES. REFER TO SHEET E0.01 FOR LIGHT FIXTURE SCHEDULE FOR THE COMPLETE SPECIFICATION AND MODEL NUMBER.
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Room	Avg	Max	Min	Max / Min
FITNESS AREA 104	23.4	36.2	10.8	3.4:1
RR 108A	20.5	23.9	17.1	1.4:1
RR 108B	25.6	29.0	22.1	1.3 : 1
RR 108C	21.0	26.6	17.1	1.6:1
RR 108D	20.3	23.7	16.9	1.4:1
RR 129	22.7	30.3	15.7	1.9:1
RR 134	23.6	29.0	21.4	1.4:1
RR 136	32.9	32.9	32.9	1.0 : 1
RR 137	36.8	36.9	36.7	1.0 : 1
LAUNDRY 150	34.0	35.1	33.0	1.1:1
EM FITNESS AREA 104	5.8	9.8	2.2	4.5:1

OCFA FIRE STATION #4

2 CALIFORNIA AVE
IRVINE, CA 92612

ORANGE COUNTY FIRE AUTHORITY

FOR PLAN REVIEW ONLY

REV	DESCRIPTION	DATE
1	AGENCY RESUBMITAL #1	11/18/22

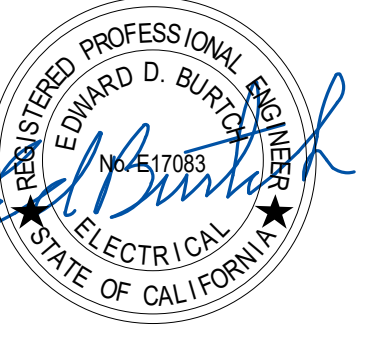
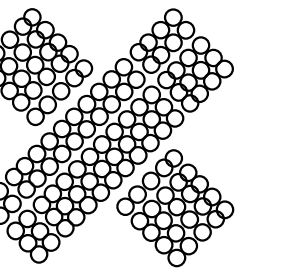
Job No. 122-06-10
Date 06-29-22
Drawn/Checked by Author
Scale 3/16" = 1'-0"

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EMERGENCY PHOTOMETRIC PLANS

E2.3

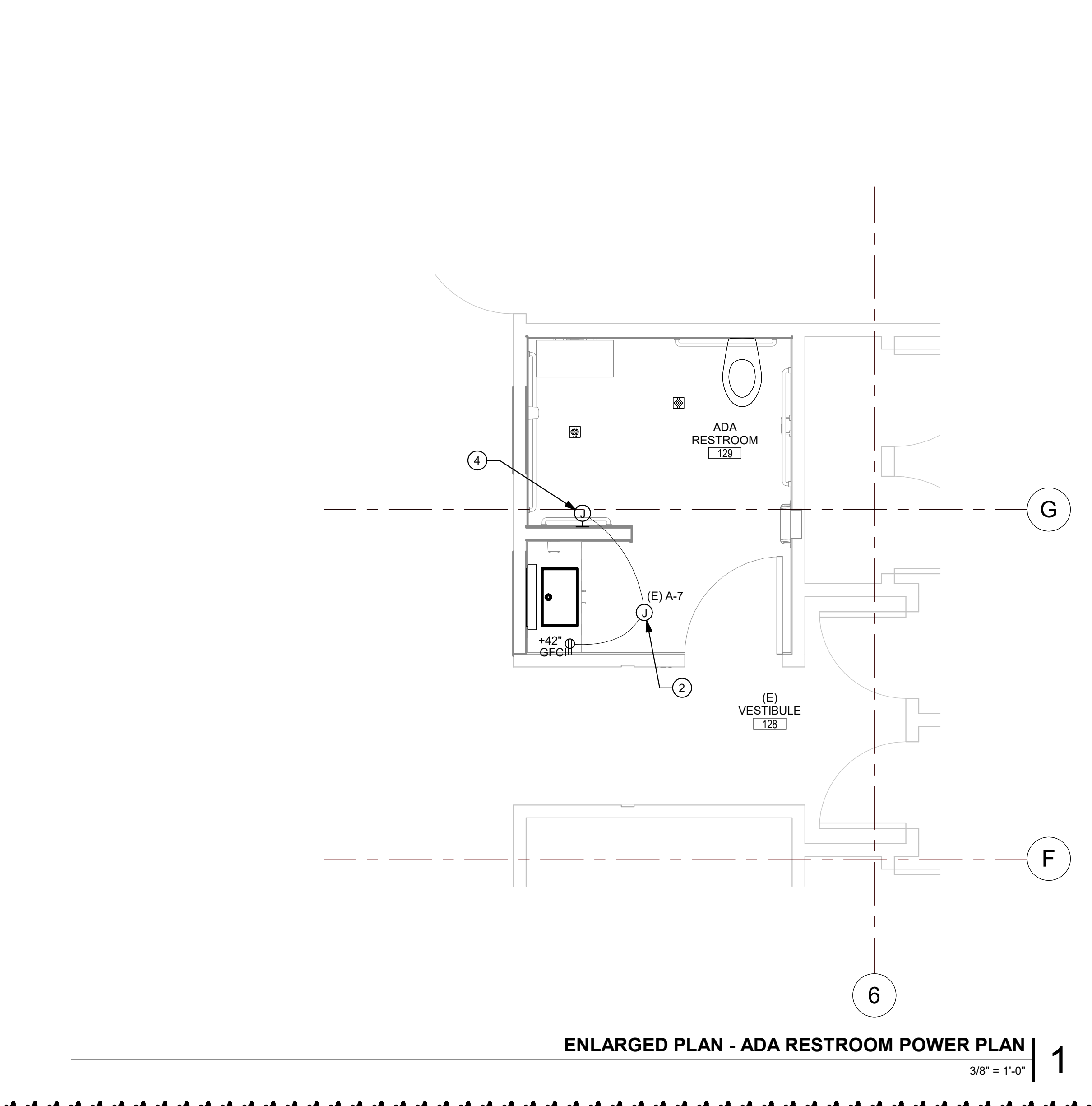
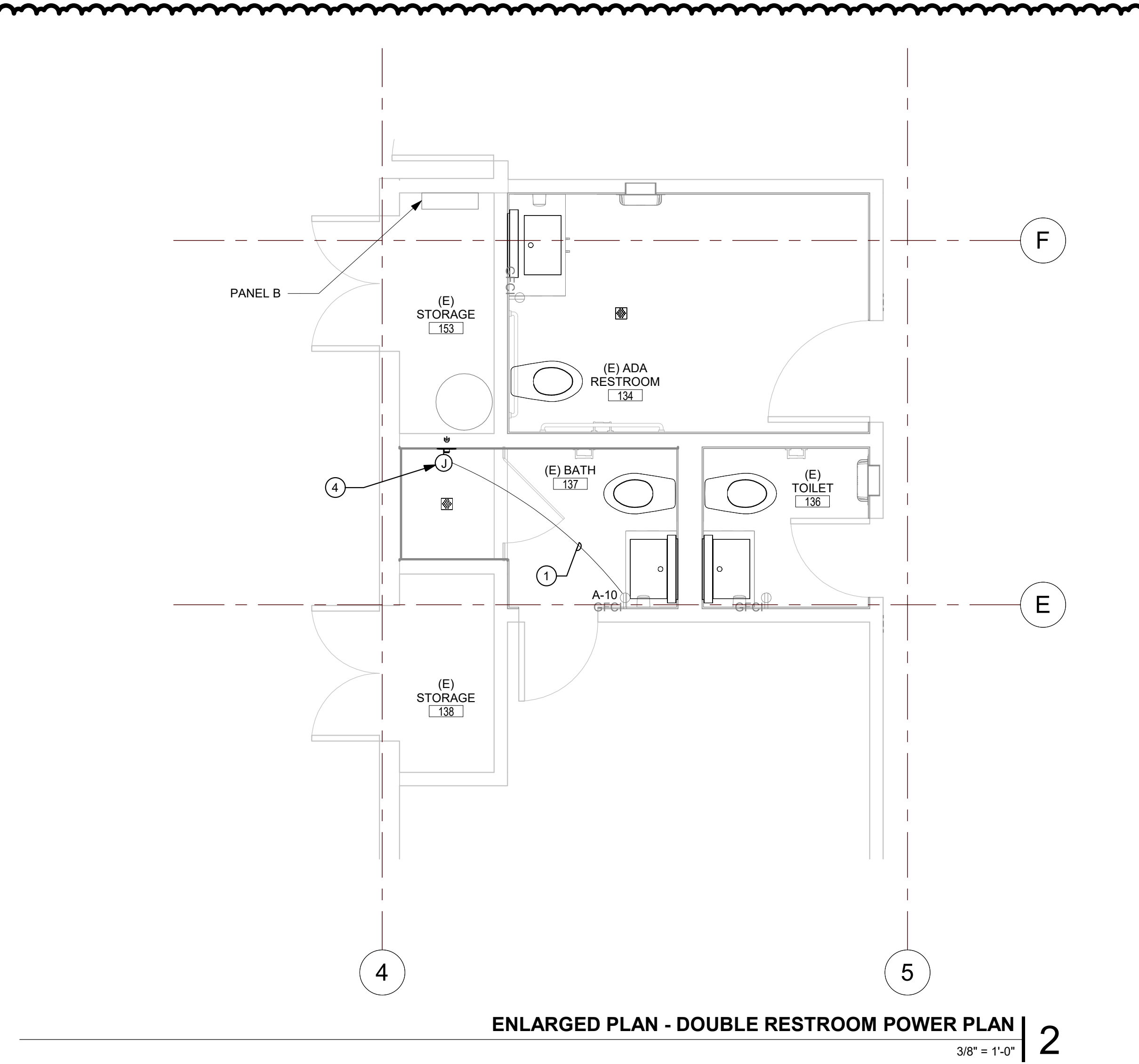
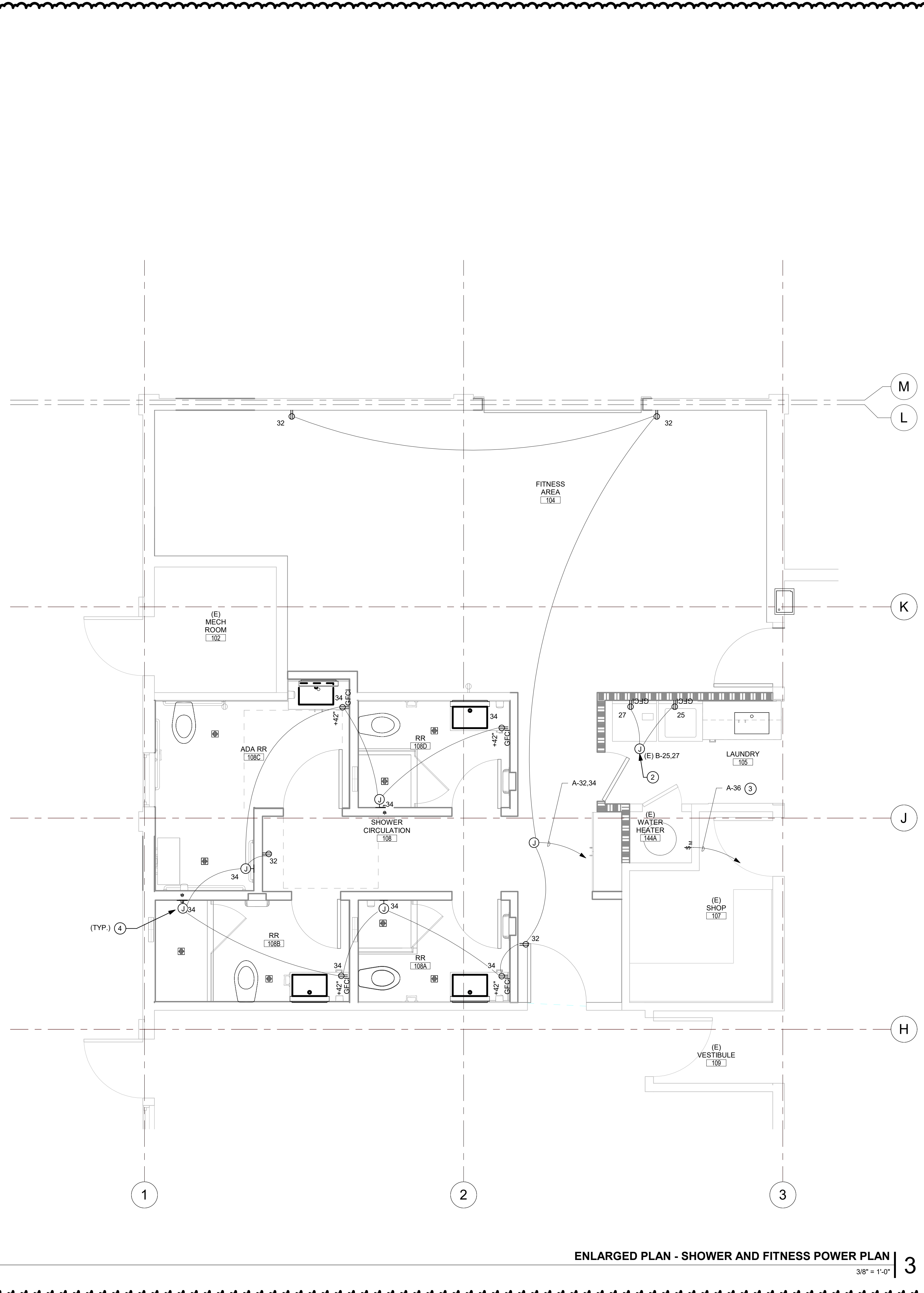


GENERAL NOTES

- 1. ELECTRICAL ENGINEERING FOR THIS PROJECT IS BASED ON EXISTING DRAWINGS DATED SEPTEMBER 20, 1968, AND A FIELD VISIT OF THE ELECTRICAL SYSTEM. IN CASE OF ANY DISCREPANCIES WITH EXISTING FIELD CONDITIONS, ELECTRICAL CONTRACTOR SHALL VERIFY THE EXACT DIFFERENCES AND NOTIFY THE ELECTRICAL ENGINEER FOR POSSIBLE REVISION TO THESE DOCUMENTS.
2. OUTAGES TO EXISTING ELECTRICAL AND SIGNAL SERVICE SHALL BE SCHEDULED IN ADVANCE WITH THE OWNER'S REPRESENTATIVE.

INSTALLATION NOTES

- 1. CONNECT TO EXISTING POWER IN ROOM AS SHOWN.
2. APPROXIMATE LOCATION OF EXISTING POWER CIRCUIT J-BOX IN CEILING SPACE. CIRCUIT AS SHOWN. VERIFY EXACT LOCATION.
3. PROVIDE POWER FOR CIRCULATION PUMP. COORDINATE ALL WORK WITH PLUMBING.
4. PROVIDE 120V POWER TO MIRROR. COORDINATE ALL WORK WITH ARCHITECT.



OCFA FIRE STATION #4

2 CALIFORNIA AVE IRVINE, CA 92612

ORANGE COUNTY FIRE AUTHORITY

FOR PLAN REVIEW ONLY

Table with 3 columns: REV, DESCRIPTION, DATE. Row 1: 1, AGENCY RESUBMITTAL #1, 11/16/22.

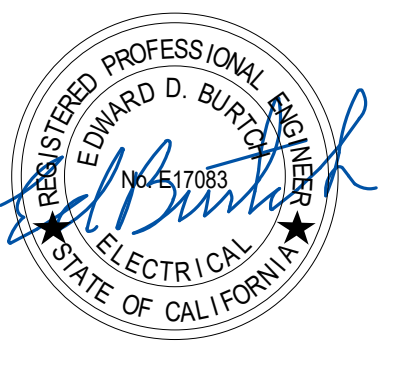
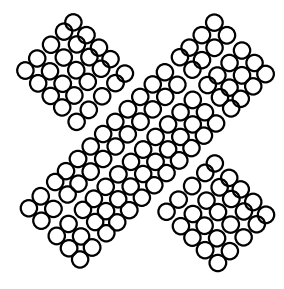
Job No. 122-06-10 Date 06-30-22 Drawn/Checked by Author Scale 3/8\"/>

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ELECTRICAL ENLARGED POWER PLAN

E4.1

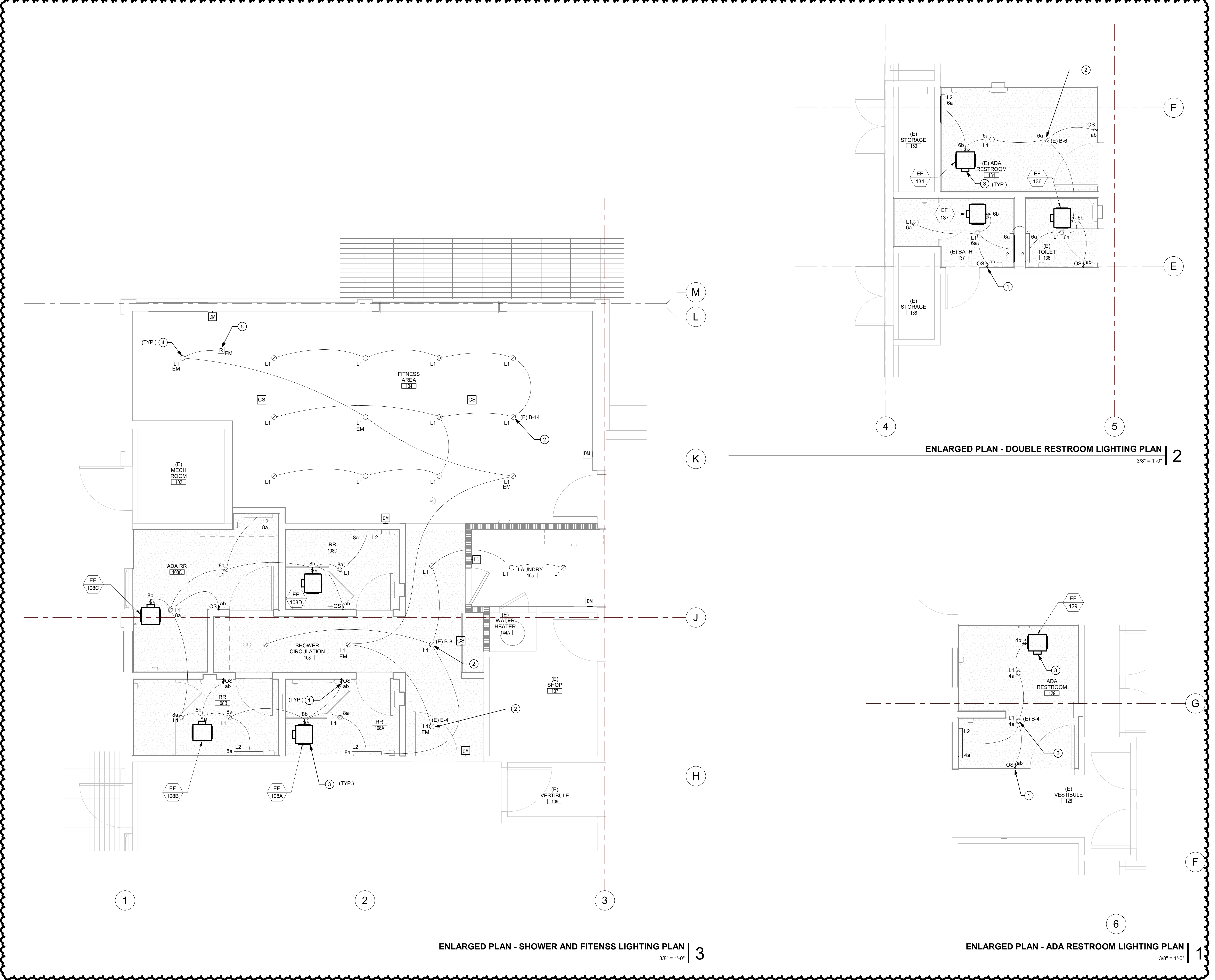


GENERAL NOTES

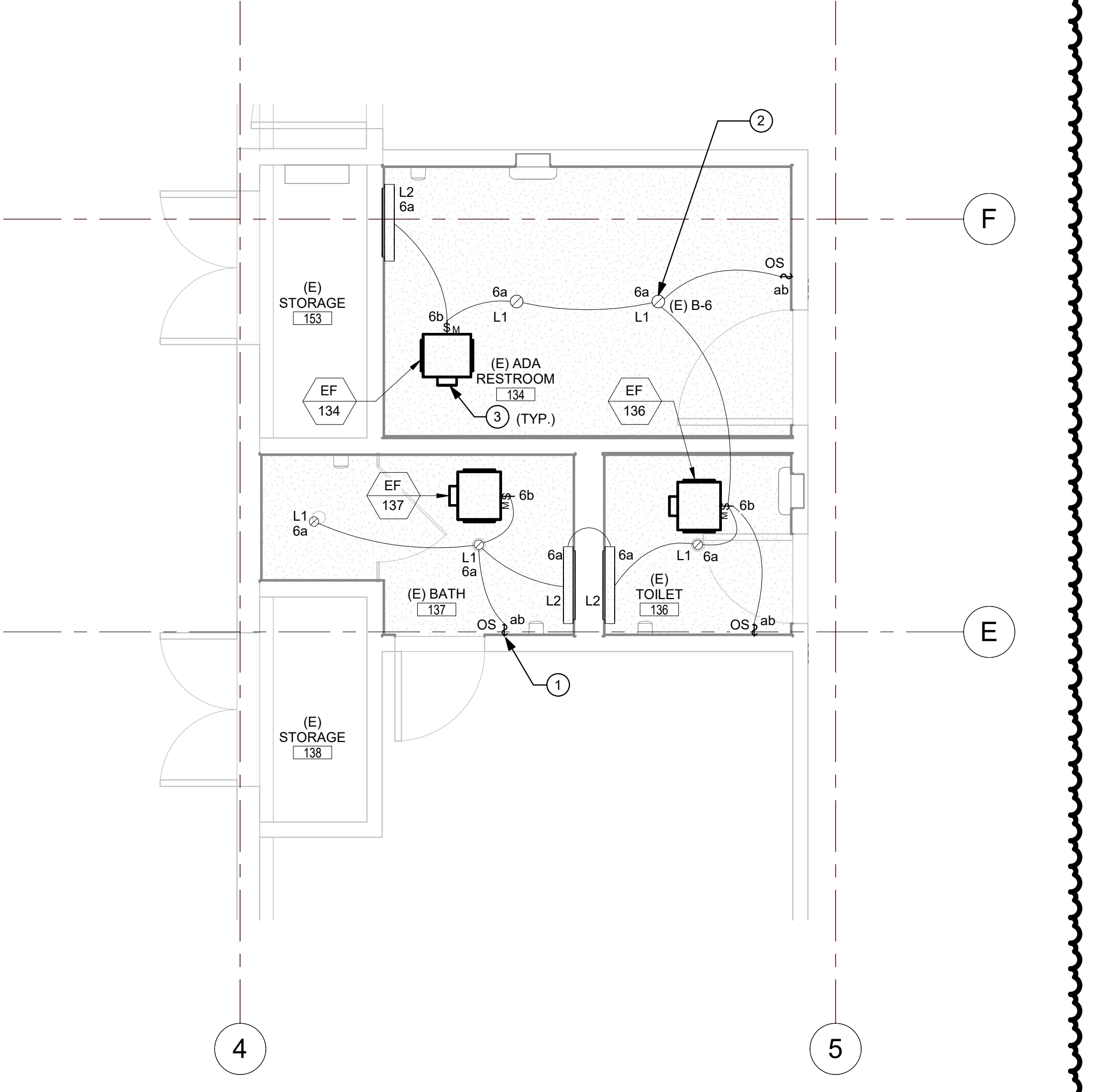
1. ELECTRICAL ENGINEERING FOR THIS PROJECT IS BASED ON EXISTING DRAWINGS DATED SEPTEMBER 20, 1968, AND A FIELD VISIT OF THE ELECTRICAL SYSTEM. IN CASE OF ANY DISCREPANCIES WITH EXISTING FIELD CONDITIONS, ELECTRICAL CONTRACTOR SHALL VERIFY THE EXACT DIFFERENCES AND NOTIFY THE ELECTRICAL ENGINEER FOR POSSIBLE REVISION TO THESE DOCUMENTS.
2. OUTAGES TO EXISTING ELECTRICAL AND SIGNAL SERVICE SHALL BE SCHEDULED IN ADVANCE WITH THE OWNER'S REPRESENTATIVE.

INSTALLATION NOTES

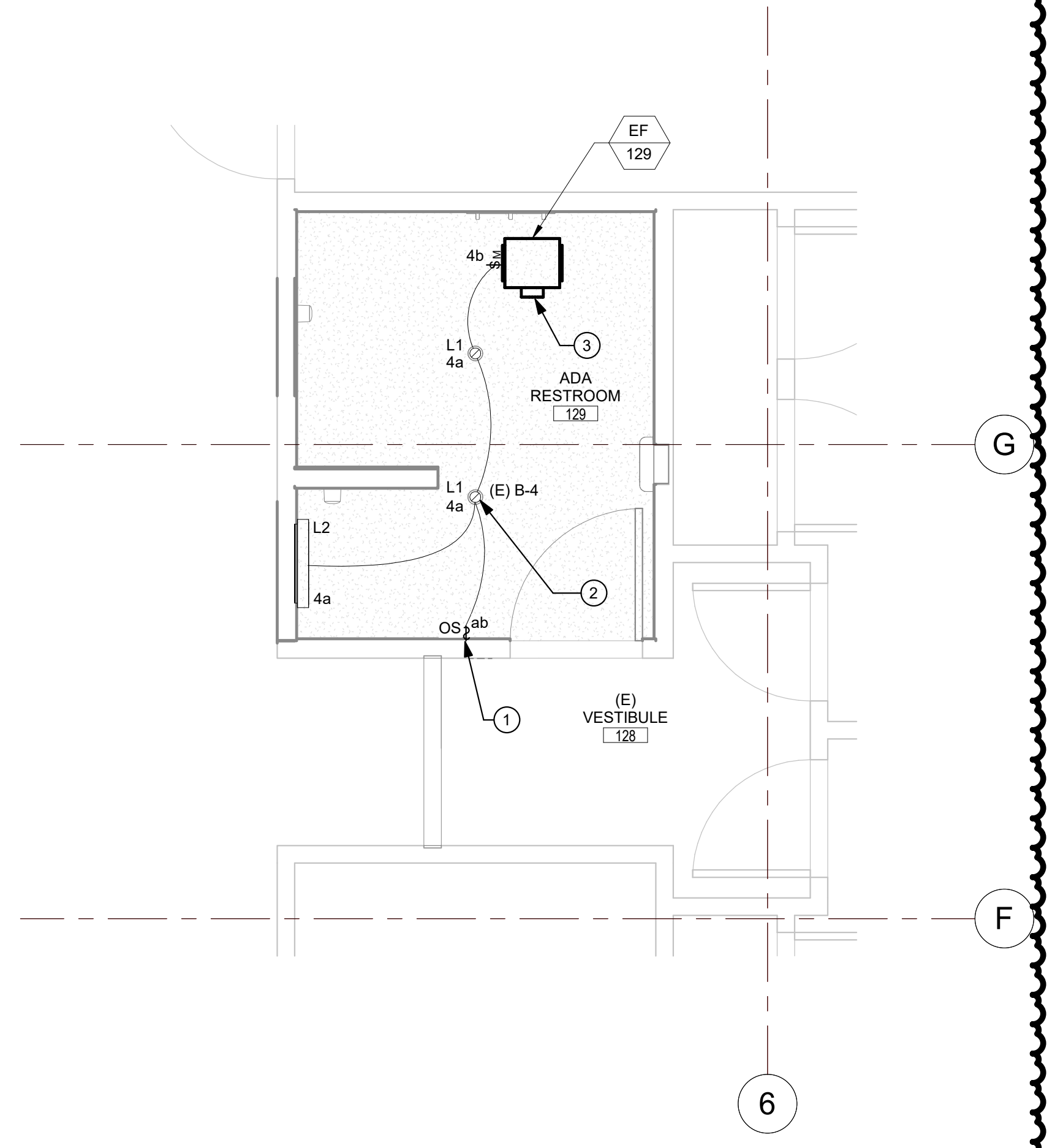
- 1 SET OCCUPANCY SENSOR WITH 30 MIN WINDOW BEFORE SHUT OFF.
- 2 CONNECT RESTROOM LIGHT FIXTURE TO EXISTING CIRCUIT.
- 3 CONNECT EXHAUST FAN CONTROLS TO LIGHT SWITCH.
- 4 LIGHTS LABELED AS EM CONNECTED TO EMERGENCY CIRCUIT E-4.
- 5 EMERGENCY RELAY. CONNECT SENSING CIRCUIT TO NORMAL POWER. EMERGENCY LIGHTS TO BE AUTO ON DURING EMERGENCY EVENTS.



ENLARGED PLAN - SHOWER AND FITNESS LIGHTING PLAN | 3
3/8" = 1'-0"



ENLARGED PLAN - DOUBLE RESTROOM LIGHTING PLAN | 2
3/8" = 1'-0"



ENLARGED PLAN - ADA RESTROOM LIGHTING PLAN | 1
3/8" = 1'-0"

FOR PLAN REVIEW ONLY

REV	DESCRIPTION	DATE
1	AGENCY RESUBMITTAL #1	11/18/22

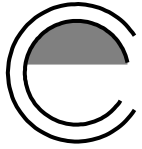
Job No. 122-06-10
Date 06-30-22
Drawn/Checked by Author
Scale 3/8" = 1'-0"

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ELECTRICAL ENLARGED LIGHTING PLAN

E4.2

5C: STRUCTURAL CALCULATIONS – CROSS ENGINEERING



CROSS ENGINEERING

3198-G Airport Loop Drive
Costa Mesa, CA 92626
(714) 556-5475

TITLE
22-123
08/2022
KDC

STRUCTURAL CALCULATIONS

Orange County Fire Authority

Fire Station #4

2 California Ave.
Irvine, CA 92612

ITZEN Architects, Inc.

REVISIONS

TABLE OF CONTENTS

Loads & Key Plans	1-4
Trellis Framing Calculations	5-16



OCFA Station #4

2 California Ave., Irvine, CA 92612

LOADS

LOADS:

Roof 1:
(Existing)

DEAD LOADS:

Pitch = 0.25:12

Roofing	5.60 PSF
5/8" Plywood	2.00
TJW Joists @ 32"	1.80
Ceiling	3.00
Insulation	0.50
Misc.	1.10

DL=	14.00 PSF
LL=	20.00 PSF
TL=	34.00 PSF

WALLS:

Exterior Wall:

Interior Wall:

DEAD LOADS:

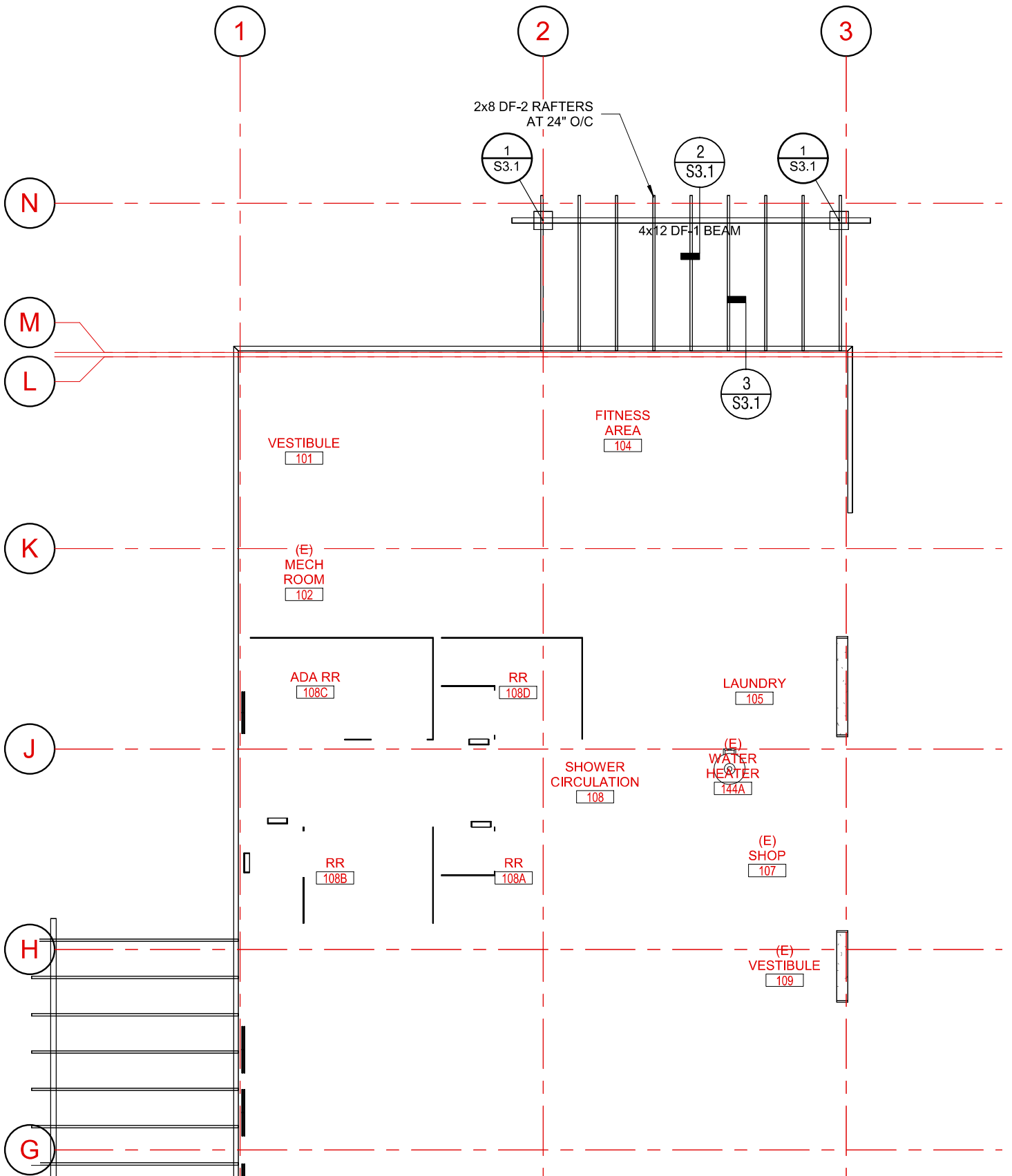
Plaster Finish	10.00 PSF
1/2" Shear Sheathing	1.50
Studs @ 16" o/c	2.26
5/8" GWB	2.80
Insulation	0.60
Misc.	0.84

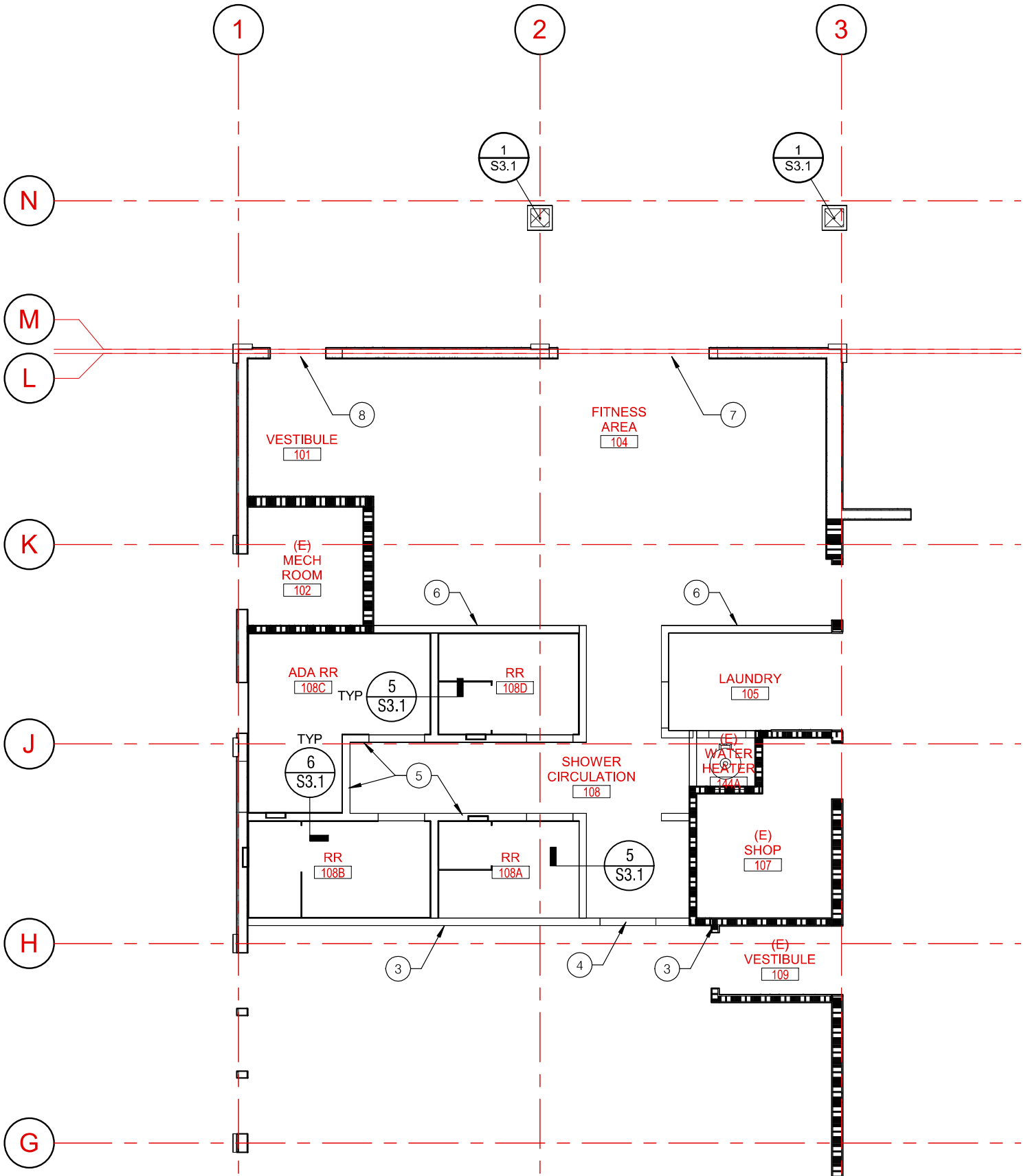
DL=	18.00 PSF
------------	------------------

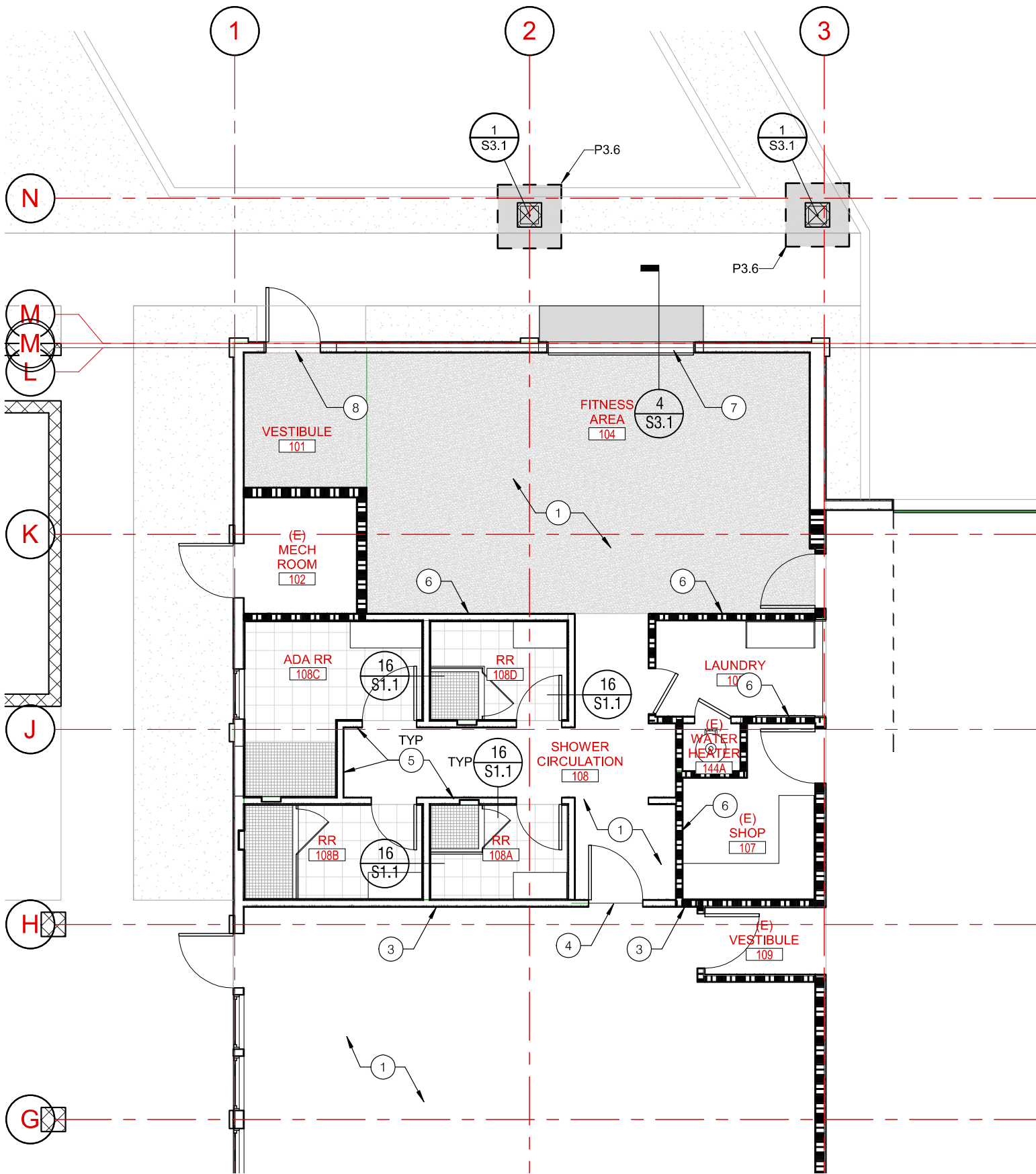
DEAD LOADS:

(2)-5/8" GWB	5.60 PSF
Studs @ 16" o/c	2.26
1/2" Shear Sheathing	1.50
Misc.	0.64

DL=	10.00 PSF
------------	------------------







Non-Structural Component Forces**2019 CBC****DEAD LOADS:****Trellis**

2x2 at 3" O/C	3.00 PSF
2X Rafters at 16" o/c	2.75
Beam	2.50
Misc.	1.25

DL=	9.50 PSF
LL=	10.00 PSF
TL=	19.50 PSF

$$F_p = ((0.4a_p S_{DS} I_p) / R_p) * (1 + 2z/h) * W_p \quad \text{Per ASCE7-16 Eq. 13.3-1}$$

$$F_{pmin} = 0.3 S_{DS} I_p W_p \quad \text{Per ASCE7-16 Eq. 13.3-3}$$

$$F_{pmax} = 1.6 S_{DS} I_p W_p \quad \text{Per ASCE7-16 Eq. 13.3-2}$$

$$S_{DS} = 1.016 \quad F_p \text{ min} = 0.457 W_p$$

$$I_p = 1.50 \quad F_p \text{ max} = 2.438 W_p$$

$$\text{Unit} = \text{Trellis}$$

$$W_p = 9.50 \text{ psf}$$

$$z = 9 \text{ ft.}$$

$$h = 10.83 \text{ ft.}$$

$$a_p = 1$$

$$R_p = 2.5$$

$$F_p = 0.649 W_p$$

$$F_p \text{ WSD} = 0.464 W_p$$

$$F_p \text{ WSD} = 4.40 \text{ psf}$$

$$\text{Seismic Load} = \mathbf{4.40 \quad PSF}$$

$$\text{Trib area to col} = 17.17 \quad \text{SF}$$

$$\mathbf{\text{Lateral Load to Cant Col} = 75.63 \quad \text{LBS}}$$

$$h = 9.00 \quad \text{FT}$$

$$\text{Moment} = 680.66 \quad \text{FT-LBS}$$

(See attached masonry column calculations)

USE: 12" SQ. CMU pilaster w/ (4)-#4 vert & #3 ties at 8" o/c



OCFA Station #4

Latitude, Longitude: 33.649807, -117.829880



Date	8/29/2022, 2:50:26 PM
Design Code Reference Document	ASCE7-16
Risk Category	IV
Site Class	D - Default (See Section 11.4.3)

Type	Value	Description
S _S	1.27	MCE _R ground motion. (for 0.2 second period)
S ₁	0.453	MCE _R ground motion. (for 1.0s period)
S _{MS}	1.524	Site-modified spectral acceleration value
S _{M1}	null -See Section 11.4.8	Site-modified spectral acceleration value
S _D	1.016	Numeric seismic design value at 0.2 second SA
S _{D1}	null -See Section 11.4.8	Numeric seismic design value at 1.0 second SA

Type	Value	Description
SDC	null -See Section 11.4.8	Seismic design category
F _a	1.2	Site amplification factor at 0.2 second
F _v	null -See Section 11.4.8	Site amplification factor at 1.0 second
PGA	0.54	MCE _G peak ground acceleration
F _{PGA}	1.2	Site amplification factor at PGA
PGA	0.648	Site modified peak ground acceleration
T _L	8	Long-period transition period in seconds
SsRT	1.27	Probabilistic risk-targeted ground motion. (0.2 second)
SsUH	1.366	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration
SsD	2.505	Factored deterministic acceleration value. (0.2 second)
S1RT	0.453	Probabilistic risk-targeted ground motion. (1.0 second)
S1UH	0.487	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration.
S1D	0.823	Factored deterministic acceleration value. (1.0 second)
PGAd	1.023	Factored deterministic acceleration value. (Peak Ground Acceleration)
PGA _H	0.54	Uniform-hazard (2% probability of exceedance in 50 years) Peak Ground Acceleration
C _{RS}	0.93	Mapped value of the risk coefficient at short periods
C _{R1}	0.931	Mapped value of the risk coefficient at a period of 1 s
C _V	1.354	Vertical coefficient

Wood Beam

Project File: 22-123-OCFA S4.ec6

LIC# : KW-06017211, Build:20.22.8.17

CROSS ENGINEERING

(c) ENERCALC INC 1983-2022

DESCRIPTION: Trellis Rafters

Maximum Forces & Stresses for Load Combinations

Load Combination	Segment Length	Span #	Max Stress Ratios									Moment Values			Shear Values		
			M	V	C _d	C _{F/V}	C _i	C _r	C _m	C _t	C _L	M	fb	F'b	V	f _v	F'v
	Length = 7.0 ft	1	0.016	0.025	1.60	1.200	1.00	1.15	1.00	1.00	1.00	0.04	35.85	2208.00	0.02	2.57	104.00

Overall Maximum Deflections

Load Combination	Span	Max. "-" Defl	Location in Span	Load Combination	Max. "+" Defl	Location in Span
+D+Lr	1	0.0298	3.526		0.0000	0.000

Vertical Reactions

Load Combination	Support notation : Far left is #1		Values in KIPS	
	Support 1	Support 2		
Overall MAXimum	0.119	0.119		
Overall MINimum	0.070	0.070		
D Only	0.049	0.049		
+D+Lr	0.119	0.119		
+D+0.750Lr	0.102	0.102		
+0.60D	0.029	0.029		
Lr Only	0.070	0.070		

Wood Beam

Project File: 22-123-OCFA S4.ec6

LIC# : KW-06017211, Build:20.22.8.17

CROSS ENGINEERING

(c) ENERCALC INC 1983-2022

DESCRIPTION: Trellis Beam

CODE REFERENCES

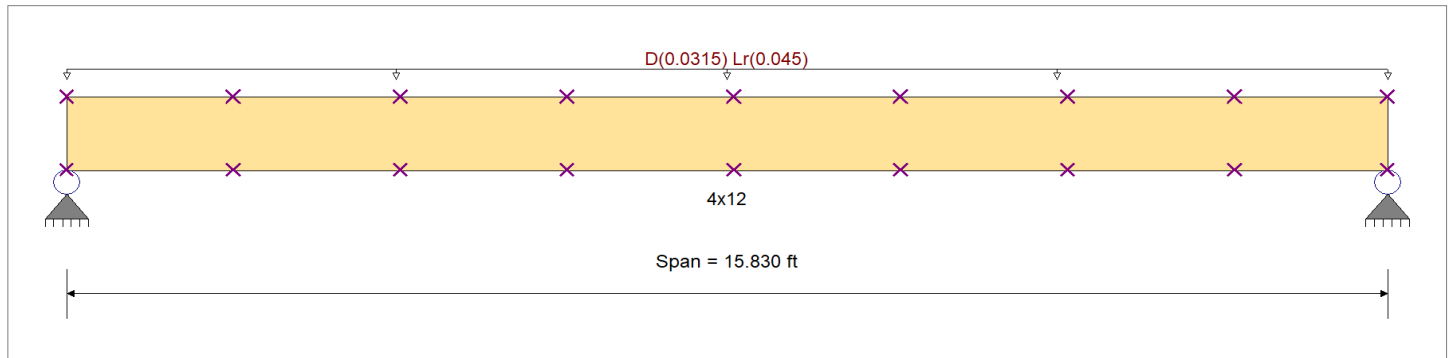
Calculations per NDS 2018, IBC 2018, CBC 2019, ASCE 7-16
 Load Combination Set : IBC 2018

Material Properties

Analysis Method : Allowable Stress Design	Fb +	1,000.0 psi	E : Modulus of Elasticity	
Load Combination IBC 2018	Fb -	1,000.0 psi	Ebend- xx	1,300.0ksi
	Fc - Prll	1,000.0 psi	Eminbend - xx	1,300.0ksi
Wood Species : Douglas Fir-Larch (North)	Fc - Perp	1,000.0 psi		
Wood Grade : No. 1/No. 2	Fv	65.0 psi		
	Ft	65.0 psi	Density	34.0pcf
Beam Bracing : Beam bracing is defined as a set spacing over all spans				

Unbraced Lengths

First Brace starts at 0.0 ft from Left-Most support
 Regular spacing of lateral supports on length of beam = 2.0 ft



Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Beam self weight calculated and added to loading
 Uniform Load : D = 0.0070, Lr = 0.010 ksf, Tributary Width = 4.50 ft, (Trellis Loading)

DESIGN SUMMARY

				Design OK			
Maximum Bending Stress Ratio	=	0.318 < 1	Maximum Shear Stress Ratio	=	0.281 < 1		
Section used for this span		4x12	Section used for this span		4x12		
fb: Actual	=	436.82 psi	fv: Actual	=	22.85 psi		
Fb: Allowable	=	1,372.11 psi	Fv: Allowable	=	81.25 psi		
Load Combination		+D+Lr	Load Combination		+D+Lr		
Location of maximum on span	=	7.915ft	Location of maximum on span	=	0.000ft		
Span # where maximum occurs	=	Span # 1	Span # where maximum occurs	=	Span # 1		
Maximum Deflection							
Max Downward Transient Deflection	0.118 in	Ratio = 1603 >= 360	Span: 1 : Lr Only				
Max Upward Transient Deflection	0 in	Ratio = 0 < 360	n/a				
Max Downward Total Deflection	0.226 in	Ratio = 841 >= 180	Span: 1 : +D+Lr				
Max Upward Total Deflection	0 in	Ratio = 0 < 180	n/a				

Maximum Forces & Stresses for Load Combinations

Load Combination	Segment Length	Span #	Max Stress Ratios									Moment Values			Shear Values			
			M	V	C _d	C _{F/V}	C _i	C _r	C _m	C _t	C _L	M	fb	F'b	V	fv	F'v	
D Only																		
	Length = 1.964 ft	1	0.091	0.186	0.90	1.100	1.00	1.00	1.00	1.00	1.00	0.56	90.30	988.56	0.29	10.86	58.50	0.00
	Length = 2.022 ft	1	0.158	0.186	0.90	1.100	1.00	1.00	1.00	1.00	1.00	0.96	156.54	988.52	0.24	10.86	58.50	0.00
	Length = 1.964 ft	1	0.197	0.186	0.90	1.100	1.00	1.00	1.00	1.00	1.00	1.20	194.92	988.56	0.16	10.86	58.50	0.00
	Length = 2.022 ft	1	0.210	0.186	0.90	1.100	1.00	1.00	1.00	1.00	1.00	1.28	207.71	988.52	0.08	10.86	58.50	0.00
	Length = 2.022 ft	1	0.210	0.186	0.90	1.100	1.00	1.00	1.00	1.00	1.00	1.28	207.70	988.52	0.08	10.86	58.50	0.00
	Length = 1.964 ft	1	0.196	0.186	0.90	1.100	1.00	1.00	1.00	1.00	1.00	1.19	193.37	988.56	0.16	10.86	58.50	0.00
	Length = 2.022 ft	1	0.155	0.186	0.90	1.100	1.00	1.00	1.00	1.00	1.00	0.94	153.48	988.52	0.25	10.86	58.50	0.00
	Length = 1.849 ft	1	0.087	0.186	0.90	1.100	1.00	1.00	1.00	1.00	1.00	0.53	85.70	988.65	0.29	10.86	58.50	0.00
+D+Lr						1.100	1.00	1.00	1.00	1.00	1.00			0.00	0.00	0.00	0.00	0.00

CROSS ENGINEERING
Consulting Structural Engineers
3198-G Airport Loop Drive
Costa Mesa, CA 92626
(714) 556-5475

Project Title: OCFA Station #4
Engineer: KDC
Project ID: 22-123
Project Descr:

Wood Beam

Project File: 22-123-OCFA S4.ec6

LIC# : KW-06017211, Build:20.22.8.17

CROSS ENGINEERING

(c) ENERCALC INC 1983-2022

DESCRIPTION: Trellis Beam

Vertical Reactions

Support notation : Far left is #1

Values in KIPS

Load Combination	Support 1	Support 2
Overall MAXimum	0.679	0.679
Overall MINimum	0.356	0.356
D Only	0.323	0.323
+D+Lr	0.679	0.679
+D+0.750Lr	0.590	0.590
+0.60D	0.194	0.194
Lr Only	0.356	0.356

Masonry Column

Project File: 22-123-OCFA S4.ec6

LIC#: KW-06017211, Build:20.22.8.17

CROSS ENGINEERING

(c) ENERCALC INC 1983-2022

DESCRIPTION: Trellis Column

Code References

Calculations per TMS 402-16, IBC 2018, CBC 2019, ASCE 7-16
 Load Combinations Used : IBC 2018

General Information

Material Properties

F'm = 1,500.0 psi
 Fr - Rupture = 75.0 psi
 Em = f'm * = 900.0
 Column Density = 130.0 pcf
 Rebar Grade = Grade 60
 Fy - Yield = 60000 psi
 Fs - Allowable = 32,000.0 psi
 E - Rebar = 29,000.0 ksi

Column Data

Column width along X-> = 11.625 in
 Column depth along Y-> = 11.625 in
 Longitudinal Bar Size = # 4.0
 Bars per side at +Y & -Y = 2
 Bars per side at +X & -X = 2
 Cover from ties = 2.0 in
 Actual Edge to Bar Centre = 2.625 in

Analysis Settings

Analysis Method = **Strength Design**
 (φ factor for Strength Design) = 0.90
 End Fixity Condition = Top Free, Bottom Fixed
 Overall Column Height = 9.0 ft
 Construction Type = Solid Grouted Hollow Concrete Masonry
 Tie Bar Size = # 3
 Tie Bar Spacing = 8.0 in

Brace condition for deflection (buckling) along columns :

X-X (width) axis : Unbraced Length for buckling ABOUT Y-Y Axis = 9 ft, K = 2

Y-Y (depth) axis : Unbraced Length for buckling ABOUT X-X Axis = 9 ft, K = 2

Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Column self weight included : 1,098.02 lbs * Dead Load Factor

AXIAL LOADS . . .

Axial Load at 9.0 ft, D = 0.180, LR = 0.1720 k

BENDING LOADS . . .

Lateral At Col Top: Lat. Point Load at 9.0 ft creating Mx-x, E = 0.070 k

Col Seismic: Lat. Uniform Load creating Mx-x, E = 0.0450 k/ft

DESIGN SUMMARY

Bending Check Results

PASS Maximum Bending Stress Ratio = **0.465** : 1
 Load Combination +0.6968D+2.0E
 Location of max.above base 0.000 ft
 At maximum location values are . . .
 Pu 0.891 k
 0.9 * Pn 1.994 k
 Mu-x -4.905 k-ft
 0.9 * Mn-x : 10.544 k-ft

Maximum SERVICE Load Reactions . .

Top along X-X 0.000 k
 Bottom along X-X 0.475 k

Maximum SERVICE Load Deflections . . .

Along x-x 0.045 in at 9.000 ft above base
 for load combination : E Only

Compressive Strength 115.607 k (ACI 530-13, Sec 3.3.4.

Pa = 0.80 [0.80 f'm (An - Ast) + FyAst] * [1-(h/(140*r))^2]

PASS Check Column Ties (ACI 530-13, Sec 2.1.6.

Min. Tie Dia. = 1/4", # 3 bar provided

Max Tie Spacing = 8.00 in, Provided = 8.00 in

PASS Reinforcing Area Check (ACI 530-13, Sec 3.3.4.

As : Actual Reinforcement 0.800

Min: 0.0025 * An 0.338

Max: 0.04 * An 5.406

Dimensional Checks

Min. Side Dim. >= 8" (ACI 530-13, Sec 5.3.1.

PASS Governing K * Lu / Dimension <= : (ACI 530-13, Sec 5.3.1.

Load Combination Results

Load Combination	Maximum Bending Stress Ratios			Maximum Axial Load		Maximum Moments	
	Stress Ratio	Status	Location	Actual	Allow	Actual	Allow
+1.40D	0.01531	PASS	0.0 ft	1.789 k	115.570 k	0.0 k-ft	17.239 k-ft
+1.20D+0.50Lr	0.01386	PASS	0.0 ft	1.620 k	115.570 k	0.0 k-ft	17.239 k-ft
+1.20D	0.01313	PASS	0.0 ft	1.534 k	115.570 k	0.0 k-ft	17.239 k-ft
+1.20D+1.60Lr	0.01548	PASS	0.0 ft	1.809 k	115.570 k	0.0 k-ft	17.239 k-ft
+1.403D+2.0E	0.4539	PASS	0.0 ft	1.793 k	3.975 k	4.905 k-ft	10.798 k-ft
+0.90D	0.009844	PASS	0.0 ft	1.150 k	115.570 k	0.0 k-ft	17.239 k-ft
+0.6968D+2.0E	0.4645	PASS	0.0 ft	0.8905 k	1.994 k	4.905 k-ft	10.544 k-ft

Masonry Column

Project File: 22-123-OCFA S4.ec6

LIC# : KW-06017211, Build:20.22.8.17

CROSS ENGINEERING

(c) ENERCALC INC 1983-2022

DESCRIPTION: Trellis Column

Maximum Reactions

Note: Only non-zero reactions are listed.

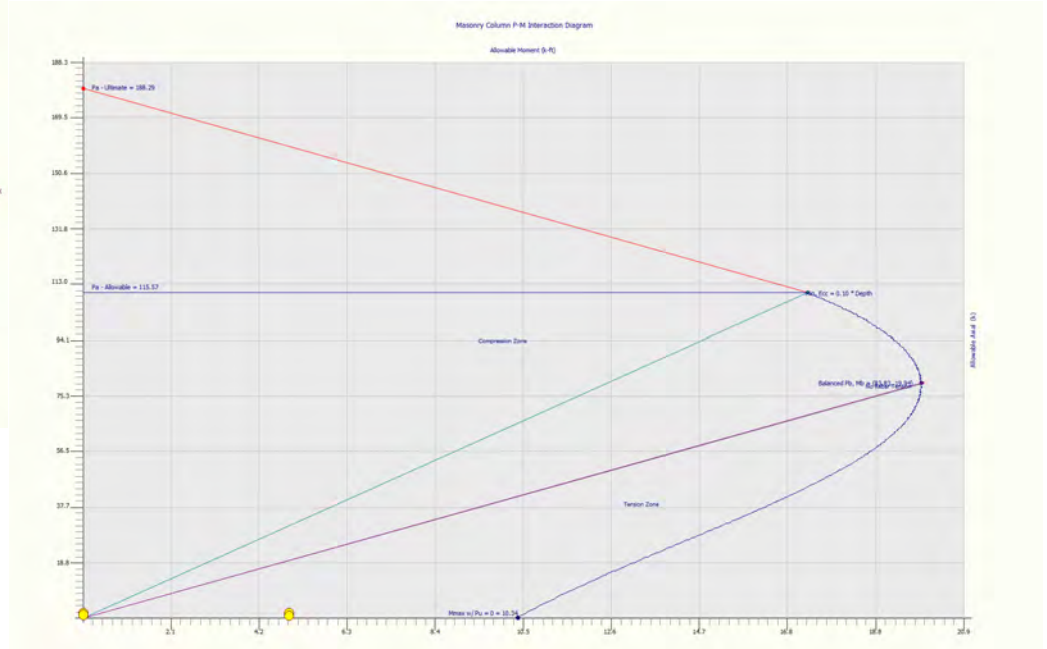
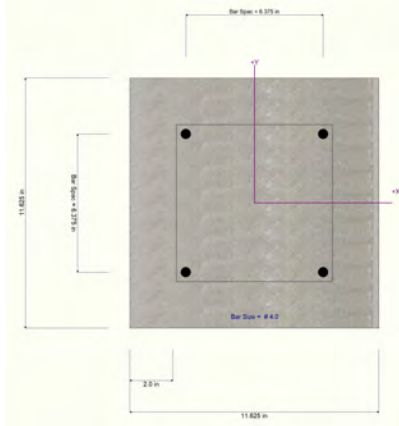
Load Combination	Y-Y Axis Reaction		Axial Reaction
	@ Base	@ Top	@ Base
D Only	k	k	1.278 k
+D+Lr	k	k	1.450 k
+D+0.750Lr	k	k	1.407 k
+D+0.70E	0.333 k	k	1.278 k
+D+0.5250E	0.249 k	k	1.278 k
+0.60D	k	k	0.767 k
+0.60D+0.70E	0.333 k	k	0.767 k
Lr Only	k	k	0.172 k
E Only	0.475 k	k	k

Maximum Deflections for Load Combinations

Load Combination	Max. Y-Y Deflection	Distance
D Only	0.0000 in	0.000 ft
+D+Lr	0.0000 in	0.000 ft
+D+0.750Lr	0.0000 in	0.000 ft
+D+0.70E	0.0316 in	9.000 ft
+D+0.5250E	0.0237 in	9.000 ft
+0.60D	0.0000 in	0.000 ft
+0.60D+0.70E	0.0316 in	9.000 ft
Lr Only	0.0000 in	0.000 ft
E Only	0.0447 in	8.940 ft

Cross Section

Interaction Diagram



General Footing

Project File: 22-123-OCFA S4.ec6

LIC# : KW-06017211, Build:20.22.8.17

CROSS ENGINEERING

(c) ENERCALC INC 1983-2022

DESCRIPTION: Trellis Colum Footing

Code References

Calculations per ACI 318-14, IBC 2018, CBC 2019, ASCE 7-16
 Load Combinations Used : IBC 2018

General Information

Material Properties

f'c : Concrete 28 day strength	=	3.0 ksi
fy : Rebar Yield	=	60.0 ksi
Ec : Concrete Elastic Modulus	=	3,122.0 ksi
Concrete Density	=	145.0 pcf
φ Values Flexure	=	0.90
Shear	=	0.750

Soil Design Values

Allowable Soil Bearing	=	1.50 ksf
Soil Density	=	110.0 pcf
Increase Bearing By Footing Weight	=	No
Soil Passive Resistance (for Sliding)	=	250.0 pcf
Soil/Concrete Friction Coeff.	=	0.30

Analysis Settings

Min Steel % Bending Reinf.	=	
Min Allow % Temp Reinf.	=	0.00180
Min. Overturning Safety Factor	=	1.50 : 1
Min. Sliding Safety Factor	=	1.0 : 1
Add Ftg Wt for Soil Pressure	:	Yes
Use ftg wt for stability, moments & shears	:	Yes
Add Pedestal Wt for Soil Pressure	:	No
Use Pedestal wt for stability, mom & shear	:	No

Increases based on footing depth

Footing base depth below soil surface	=	2.0 ft
Allow press. increase per foot of depth when footing base is below	=	ksf ft

Increases based on footing plan dimension

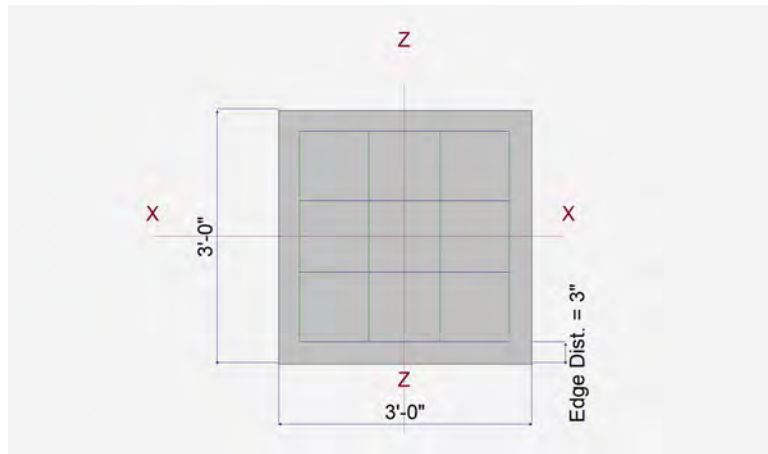
Allowable pressure increase per foot of depth when max. length or width is greater than	=	ksf ft
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Dimensions

Width parallel to X-X Axis	=	3.0 ft
Length parallel to Z-Z Axis	=	3.0 ft
Footing Thickness	=	15.0 in

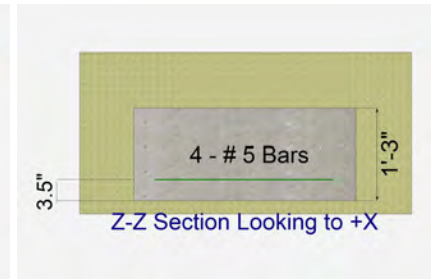
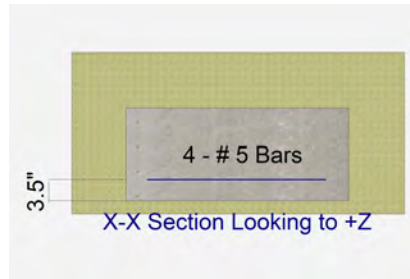
Pedestal dimensions...

px : parallel to X-X Axis	=	in
pz : parallel to Z-Z Axis	=	in
Height	=	in
Rebar Centerline to Edge of Concrete... at Bottom of footing	=	3.50 in



Reinforcing

Bars parallel to X-X Axis	=	4.0
Number of Bars	=	# 5
Reinforcing Bar Size	=	# 5
Bars parallel to Z-Z Axis	=	4.0
Number of Bars	=	# 5
Reinforcing Bar Size	=	# 5
Bandwidth Distribution Check (ACI 15.4.4.2)		
Direction Requiring Closer Separation		n/a
# Bars required within zone		n/a
# Bars required on each side of zone		n/a



Applied Loads

	D	Lr	L	S	W	E	H
P : Column Load	=	1.377	0.1720				k
OB : Overburden	=						ksf
M-xx	=						k-ft
M-zz	=					2.453	k-ft
V-x	=						k
V-z	=						k

General Footing

Project File: 22-123-OCFA S4.ec6

LIC#: KW-06017211, Build:20.22.8.17

CROSS ENGINEERING

(c) ENERCALC INC 1983-2022

DESCRIPTION: Trellis Column Footing

DESIGN SUMMARY

Design OK

	Min. Ratio	Item	Applied	Capacity	Governing Load Combination
PASS	0.5297	Soil Bearing	0.7945 ksf	1.50 ksf	+D+0.70E about Z-Z axis
PASS	n/a	Overturning - X-X	0.0 k-ft	0.0 k-ft	No Overturning
PASS	1.966	Overturning - Z-Z	1.717 k-ft	3.376 k-ft	+0.60D+0.70E
PASS	n/a	Sliding - X-X	0.0 k	0.0 k	No Sliding
PASS	n/a	Sliding - Z-Z	0.0 k	0.0 k	No Sliding
PASS	n/a	Uplift	0.0 k	0.0 k	No Uplift
PASS	0.05915	Z Flexure (+X)	1.221 k-ft/ft	20.636 k-ft/ft	+1.403D+2.0E
PASS	0.01923	Z Flexure (-X)	0.4146 k-ft/ft	21.566 k-ft/ft	+1.403D+2.0E
PASS	0.01170	X Flexure (+Z)	0.2415 k-ft/ft	20.636 k-ft/ft	+1.403D+2.0E
PASS	0.01170	X Flexure (-Z)	0.2415 k-ft/ft	20.636 k-ft/ft	+1.403D+2.0E
PASS	0.06492	1-way Shear (+X)	5.334 psi	82.158 psi	+1.403D+2.0E
PASS	0.01763	1-way Shear (-X)	1.448 psi	82.158 psi	+1.403D+2.0E
PASS	0.01023	1-way Shear (+Z)	0.8401 psi	82.158 psi	+1.403D+2.0E
PASS	0.01023	1-way Shear (-Z)	0.8401 psi	82.158 psi	+1.403D+2.0E
PASS	0.02303	2-way Punching	3.785 psi	164.317 psi	+1.403D+2.0E

Detailed Results

Soil Bearing

Rotation Axis & Load Combination...	Gross Allowable	Xecc	Zecc (in)	Actual Soil Bearing Stress @ Location				Actual / Allow Ratio
				Bottom, -Z	Top, +Z	Left, -X	Right, +X	
X-X, D Only	1.50	n/a	0.0	0.4168	0.4168	n/a	n/a	0.278
X-X, +D+Lr	1.50	n/a	0.0	0.4359	0.4359	n/a	n/a	0.291
X-X, +D+0.750Lr	1.50	n/a	0.0	0.4311	0.4311	n/a	n/a	0.287
X-X, +D+0.70E	1.50	n/a	0.0	0.4168	0.4168	n/a	n/a	0.278
X-X, +D+0.5250E	1.50	n/a	0.0	0.4168	0.4168	n/a	n/a	0.278
X-X, +0.60D	1.50	n/a	0.0	0.2501	0.2501	n/a	n/a	0.167
X-X, +0.60D+0.70E	1.50	n/a	0.0	0.2501	0.2501	n/a	n/a	0.167
Z-Z, D Only	1.50	0.0	n/a	n/a	n/a	0.4168	0.4168	0.278
Z-Z, +D+Lr	1.50	0.0	n/a	n/a	n/a	0.4359	0.4359	0.291
Z-Z, +D+0.750Lr	1.50	0.0	n/a	n/a	n/a	0.4311	0.4311	0.287
Z-Z, +D+0.70E	1.50	5.494	n/a	n/a	n/a	0.03899	0.7945	0.530
Z-Z, +D+0.5250E	1.50	4.120	n/a	n/a	n/a	0.1334	0.7001	0.467
Z-Z, +0.60D	1.50	0.0	n/a	n/a	n/a	0.2501	0.2501	0.167
Z-Z, +0.60D+0.70E	1.50	9.156	n/a	n/a	n/a	0.0	0.6740	0.449

Overturning Stability

Rotation Axis & Load Combination...	Overturning Moment	Resisting Moment	Stability Ratio	Status
X-X, D Only	None	0.0 k-ft	Infinity	OK
X-X, +D+Lr	None	0.0 k-ft	Infinity	OK
X-X, +D+0.750Lr	None	0.0 k-ft	Infinity	OK
X-X, +D+0.70E	None	0.0 k-ft	Infinity	OK
X-X, +D+0.5250E	None	0.0 k-ft	Infinity	OK
X-X, +0.60D	None	0.0 k-ft	Infinity	OK
X-X, +0.60D+0.70E	None	0.0 k-ft	Infinity	OK
Z-Z, D Only	None	0.0 k-ft	Infinity	OK
Z-Z, +D+Lr	None	0.0 k-ft	Infinity	OK
Z-Z, +D+0.750Lr	None	0.0 k-ft	Infinity	OK
Z-Z, +D+0.70E	1.717 k-ft	5.626 k-ft	3.277	OK
Z-Z, +D+0.5250E	1.288 k-ft	5.626 k-ft	4.369	OK
Z-Z, +0.60D	None	0.0 k-ft	Infinity	OK
Z-Z, +0.60D+0.70E	1.717 k-ft	3.376 k-ft	1.966	OK

All units k

Sliding Stability

Force Application Axis Load Combination...	Sliding Force	Resisting Force	Stability Ratio	Status
Footing Has NO Sliding				

General Footing

Project File: 22-123-OCFA S4.ec6

LIC# : KW-06017211, Build:20.22.8.17

CROSS ENGINEERING

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DESCRIPTION: Trellis Column Footing

Footing Flexure

Flexure Axis & Load Combination	Mu k-ft	Side	Tension Surface	As Req'd in^2	Gvrn. As in^2	Actual As in^2	Phi*Mn k-ft	Status
X-X, +1.40D	0.2410	+Z	Bottom	0.3240	AsMin	0.4133	20.636	OK
X-X, +1.40D	0.2410	-Z	Bottom	0.3240	AsMin	0.4133	20.636	OK
X-X, +1.20D+0.50Lr	0.2173	+Z	Bottom	0.3240	AsMin	0.4133	20.636	OK
X-X, +1.20D+0.50Lr	0.2173	-Z	Bottom	0.3240	AsMin	0.4133	20.636	OK
X-X, +1.20D	0.2066	+Z	Bottom	0.3240	AsMin	0.4133	20.636	OK
X-X, +1.20D	0.2066	-Z	Bottom	0.3240	AsMin	0.4133	20.636	OK
X-X, +1.20D+1.60Lr	0.2410	+Z	Bottom	0.3240	AsMin	0.4133	20.636	OK
X-X, +1.20D+1.60Lr	0.2410	-Z	Bottom	0.3240	AsMin	0.4133	20.636	OK
X-X, +1.403D+2.0E	0.2415	+Z	Bottom	0.3240	AsMin	0.4133	20.636	OK
X-X, +1.403D+2.0E	0.2415	-Z	Bottom	0.3240	AsMin	0.4133	20.636	OK
X-X, +0.90D	0.1549	+Z	Bottom	0.3240	AsMin	0.4133	20.636	OK
X-X, +0.90D	0.1549	-Z	Bottom	0.3240	AsMin	0.4133	20.636	OK
X-X, +0.6968D+2.0E	0.1199	+Z	Bottom	0.3240	AsMin	0.4133	20.636	OK
X-X, +0.6968D+2.0E	0.1199	-Z	Bottom	0.3240	AsMin	0.4133	20.636	OK
Z-Z, +1.40D	0.2410	-X	Bottom	0.3240	AsMin	0.4133	20.636	OK
Z-Z, +1.40D	0.2410	+X	Bottom	0.3240	AsMin	0.4133	20.636	OK
Z-Z, +1.20D+0.50Lr	0.2173	-X	Bottom	0.3240	AsMin	0.4133	20.636	OK
Z-Z, +1.20D+0.50Lr	0.2173	+X	Bottom	0.3240	AsMin	0.4133	20.636	OK
Z-Z, +1.20D	0.2066	-X	Bottom	0.3240	AsMin	0.4133	20.636	OK
Z-Z, +1.20D	0.2066	+X	Bottom	0.3240	AsMin	0.4133	20.636	OK
Z-Z, +1.20D+1.60Lr	0.2410	-X	Bottom	0.3240	AsMin	0.4133	20.636	OK
Z-Z, +1.20D+1.60Lr	0.2410	+X	Bottom	0.3240	AsMin	0.4133	20.636	OK
Z-Z, +1.403D+2.0E	0.4146	-X	Top	0.3240	AsMin	0.4133	21.566	OK
Z-Z, +1.403D+2.0E	1.221	+X	Bottom	0.3240	AsMin	0.4133	20.636	OK
Z-Z, +0.90D	0.1549	-X	Bottom	0.3240	AsMin	0.4133	20.636	OK
Z-Z, +0.90D	0.1549	+X	Bottom	0.3240	AsMin	0.4133	20.636	OK
Z-Z, +0.6968D+2.0E	0.2068	-X	Top	0.3240	AsMin	0.4133	21.566	OK
Z-Z, +0.6968D+2.0E	0.2068	+X	Top	0.3240	AsMin	0.4133	21.566	OK

One Way Shear

Load Combination...	Vu @ -X	Vu @ +X	Vu @ -Z	Vu @ +Z	Vu:Max	Phi Vn	Vu / Phi*Vn	Status
+1.40D	0.84 psi	0.84 psi	0.84 psi	0.84 psi	0.84 psi	82.16 psi	0.01	OK
+1.20D+0.50Lr	0.76 psi	0.76 psi	0.76 psi	0.76 psi	0.76 psi	82.16 psi	0.01	OK
+1.20D	0.72 psi	0.72 psi	0.72 psi	0.72 psi	0.72 psi	82.16 psi	0.01	OK
+1.20D+1.60Lr	0.84 psi	0.84 psi	0.84 psi	0.84 psi	0.84 psi	82.16 psi	0.01	OK
+1.403D+2.0E	1.45 psi	5.33 psi	0.84 psi	0.84 psi	5.33 psi	82.16 psi	0.06	OK
+0.90D	0.54 psi	0.54 psi	0.54 psi	0.54 psi	0.54 psi	82.16 psi	0.01	OK
+0.6968D+2.0E	0.72 psi	0.72 psi	0.42 psi	0.42 psi	0.72 psi	82.16 psi	0.01	OK

Two-Way "Punching" Shear

All units k

Load Combination...	Vu	Phi*Vn	Vu / Phi*Vn	Status
+1.40D	3.27 psi	164.32psi	0.01991	OK
+1.20D+0.50Lr	2.95 psi	164.32psi	0.01795	OK
+1.20D	2.80 psi	164.32psi	0.01706	OK
+1.20D+1.60Lr	3.27 psi	164.32psi	0.01991	OK
+1.403D+2.0E	3.79 psi	164.32psi	0.02303	OK
+0.90D	2.10 psi	164.32psi	0.0128	OK
+0.6968D+2.0E	2.81 psi	164.32psi	0.01708	OK



**Orange County Fire Authority
AGENDA STAFF REPORT**

**Board of Directors Meeting
November 16, 2023**

**Agenda Item No. 3A
Discussion Calendar**

Wildfire Resource Center (Camp 18) Site Selection

Contact(s) for Further Information

Jim Ruane, Assistant Chief Logistics Department	jimruane@ocfa.org	714.573.6801
Lori Zeller, Deputy Chief Administration & Support Bureau	lorizeller@ocfa.org	714.573.6020
Tim Perkins, Assistant Chief South Operations	timperkins@ocfa.org	714.573.6761

Summary

This agenda item is submitted for Board consideration of location options for the new Wildfire Resource Center, which will replace the existing Camp 18 location, to house OCFA’s Hand Crew Firefighters, Crew Supervisors, Dozer staff, related heavy equipment, and apparatus.

Prior Board/Committee Action

On September 22, 2022, the Board of Directors approved the allocation of \$4.2M in State funding beginning in FY 2022/23 for an expanded Hand Crew program. On November 17, 2022, the Board of Directors approved an amendment to the 5-Year CIP to add \$16.9M in State funding for a new Wildfire Resource Center to support the expanded Hand Crew program.

On September 28, 2023, after publishing a report for the Board of Directors consideration at that evening’s meeting regarding results of the search for available properties for the Wildfire Resource Center, staff pulled the item and deferred it to a future month. Staff subsequently requested Directors to advise of any outstanding questions which should be addressed in a subsequent version of the agenda staff report.

RECOMMENDED ACTION:

Provide direction to staff regarding which site the Board would like to pursue for OCFA’s future Wildfire Resource Center, subject to successful price and term negotiations as directed by the Board, and subject to any applicable due diligence related to the selected site.

Impact to Cities/County

Not Applicable.

Fiscal Impact

In 2022, OCFA was awarded \$16.9M in State funding for a new Hand Crew facility. Funds are specifically budgeted in Org 123 Fire Station and Facilities Fund under Project #P555.

Increased cost funded by Structural Fire Fund	\$0
Increased cost funded by Cash Contract Cities	\$0

Background

Beginning with the adoption of the 2022-2023 State Budget, the Authority received funding for a second permanent Hand Crew. The second Hand Crew has greatly augmented the services provided through OCFA's Hand Crew Program, with improved ability to respond to wildfires throughout the year, implement high-priority fuel reduction projects to protect communities from wildfire, and participate in prescribed fire projects to achieve more resilient landscapes.

Additionally, following efforts by Senator Dave Min and supported by OCFA management and the Orange County Professional Firefighters Association, OCFA received \$16.9M in State funding for a new Hand Crew facility, now coined the future Wildfire Resource Center, where the OCFA Hand Crews will operate from. Accordingly, OCFA Property Management and Operations/Chief Officers, working with OCFA's real estate consultant and real estate firms, conducted a comprehensive search and evaluation to determine viable sites for construction and operation of the Wildfire Resource Center in support of the Hand Crew Firefighters (2 crews of 21 HCFFs each), Crew Supervisors, Dozer staff, related heavy equipment, and apparatus.

Findings

The criteria for evaluating potential sites for the Wildfire Resource Center included adequate lot size for current and future use, ingress and egress, location and traffic/travel conditions to reach areas of potential wildland fires, topography, environmental conditions, geology, and land use compatibility, such as local zoning and permitted land uses. This research and analysis resulted in identifying two viable sites:

- **San Clemente:** Two sites of noncontiguous land, 4.5 acres combined ¹, both on Ave. Vista Hermosa in close proximity to OCFA Fire Station 59 and Vista Hermosa Sports Park
- **Rancho Mission Viejo:** One site of land, 5.0 acres, in close proximity to Ortega Highway, SR 74, on the corner of Gibby Rd. and Coyotes Rd.

Staff's summary of all sites that were evaluated, and analysis of the two specific sites listed above, is provided as Attachment 1. Pertaining to the details listed in the matrix for the two viable sites (slides 7-8 of Attachment 1), staff obtained independent verification of the details for each site respectively by Andy Hall, San Clemente City Manager, and Mike Balsamo, SVP/Government Relations for Rancho Mission Viejo. Subsequently, staff received additional input from each of the property owners regarding property attributes and/or terms (Attachments 2 and 3).

In addition to the above analysis regarding specific property details, we also developed a preliminary "project plan" to include details such as how many square feet are needed for the facility building, parking spaces, equipment, living quarters, heliport, etc. This preliminary "project plan" was provided to one of OCFA's contracted architects for use in preparing rough-draft renderings of how the project scope could be overlaid onto each of the two potential sites (Attachment 4).

Conclusion

As we have been exploring options for the Wildfire Resource Center and documenting our findings regarding sites, staff has received a variety of questions. We have made our best effort in addressing these questions in the attached Questions & Answers document (Attachment 5);

¹ According to County Assessor records, the two sites combined are 4.5 acres (2.2 and 2.3 acres). The City of San Clemente has indicated that, according to City records, the two sites combined are 4.9 acres (2.3 and 2.6 acres).

however, it's important to note that some details will be dependent upon future negotiated terms, due diligence processes, permitting processes, etc.

Since Board direction regarding negotiations about price and terms of payment for the selected property will occur in closed session (Real Property Negotiations) after site selection, proposed pricing and property appraisals are being communicated separately and confidentially to the Board.

Ultimately, staff would like to hear from the Board to determine if additional information is needed to guide the site selection. If no further information is needed, then staff is seeking direction as to which site the Board would like to pursue for OCFA's future Wildfire Resource Center. Upon direction from the Board for preliminary site selection, real property negotiators will then consult with the Board of Directors in closed session to obtain authorization for acquisition price and terms of payment. Upon successful completion of any applicable negotiations and due diligence processes, staff will return to the Board for approval of formal agreements (lease or purchase agreement) and/or other legal documents, as necessary.

Attachments

1. Wildfire Resource Center Site Evaluations
2. Additional Information from City of San Clemente
3. Additional Information from Rancho Mission Viejo
4. Preliminary Project Plan Renderings – Overlaid to Each Site
5. Questions & Answers



ORANGE COUNTY FIRE AUTHORITY

Site Selection for OCFA Wildfire Resource Center (Replacement for Existing Camp 18)

**Board of Directors
November 16, 2023**

By Jim Ruane, Assistant Chief Logistics



Background

- In October 2022, the Office of Emergency Services (OES) announced that OCFA would be receiving \$16.9M in state funding to build a new Wildfire Facility to house the existing Hand Crew, Dozer staff, and apparatus
 - Proposed new facility will replace existing **Camp 18**, which includes Hand Crew Firefighters (2 crews of 21 HCFFs each), Crew Supervisors, Dozer staff, related heavy equipment, and apparatus
 - Proposed new facility will not replace existing **Fire Station 18**, which will remain in Trabuco Canyon, and which houses one 3-Person Engine (Captain, Engineer, and Firefighter)
- Initial cost estimate to build new Wildfire Facility = approx. \$15M, including site improvements/utilities, but excluding site acquisition

Potential Site Evaluations

- Over 20 sites have been reviewed by OCFA staff and/or OCFA's contracted real estate consultant for feasibility relative to the new proposed Wildfire Resource Facility:
 - OCFA Staff: Logistics Assistant Chief, South Operations Assistant Chief, Property Management, Operations Chief Officers, and Crews & Equipment Personnel
 - OCFA's Independent Real Estate Consultant: Brookhurst Development & Advisory Corporation, Jeff Baize/Chief Executive Officer
- In addition, numerous real estate brokerage firms have been searching for potential sites:
 - Real Estate Brokerage Firms: CBRE, Cushman & Wakefield, Lea and Associates, Stream Realty, Voit and Kidder Mathews
 - *Real Estate Firm Specialties include raw land, commercial, and industrial properties*

Potential Site Evaluations

- Primary factors used for evaluating potential sites included:
 - Location, Traffic, Ingress/Egress - Travel logistics to reach wildfire areas
 - Property attributes – Size, topography, zoning, neighborhood compatibility, environmental conditions (flood zone, wells, soil conditions)
- Sites reviewed are listed on the following slide, with findings categorized as follows:

A – Property is viable for use in developing the proposed Wildfire Facility; submit for additional consideration by Board of Directors

B – Property is not viable; undeveloped land or other property type which is not suitable due to terrain, access, utilities, turning radius, driveway limitations, or not currently available

C – Property is not viable; available commercial property which is either too small, cost prohibitive, or which is (or which is “to be”) designated for Housing development

Potential Site Evaluations

Location	Site Type or Identifier	# of Sites	Approximate Size	Conclusion Category
Unincorporated County	Undeveloped Properties	6	1 to 11 acres	B – Not Viable*
Trabuco Canyon / Unincorporated County	Trabuco Canyon Nursery c/o Trabuco Canyon Water	1	3 to 6 acres	B – Not Viable*
Dove Canyon / RSM	Dove Canyon Shopping Plaza	1	4 acres	B – Not Viable*
Unincorporated County	Joplin Center	1	340 acres	B – Not Viable*
City of Irvine	Undeveloped Property – Property to be granted in the future to City from the Irvine Co. and dedicated to fire service needs	1	10 acres	B – Not Viable*
Trabuco Canyon/ Unincorporated County	Existing Camp 18	1	3 acres	B – Not Viable*
Various OCFA Cities	Developed Commercial Properties	7	Various	C – Not Viable*
San Clemente	2 noncontiguous sites on Ave. Vista Hermosa (packaged as 1) 1 at West Side of Sports Park, and 1 next to Fire Station 59	1	4.5 acres	A – Viable**
Rancho Mission Viejo / Unincorporated County	NE Corner Gibby Rd. & Coyotes Rd. Rancho Mission Viejo	1	5 acres	A – Viable**

* Not viable for the current Wildfire Facility needs, but will be considered for future use

** Additional details are provided on slides 7-8



Potential Site Evaluations

- Based on the evaluation of potential sites, there are currently two locations identified as viable options *(not listed in any priority order)*:
 - **San Clemente**: 2 sites of noncontiguous land (packaged as 1 site), 4.5* acres combined, both on Ave. Vista Hermosa (1 at the West side of the Sports Park and 1 next to OCFA Fire Station 59)
 - **Rancho Mission Viejo**: 1 site of land, 5.0 acres, in close proximity to Ortega Highway, SR 74, on the corner of Gibby Rd. and Coyotes Rd.

**According to County Assessor records, the two sites combined are 4.5 acres (2.2 and 2.3 acres). The City of San Clemente has indicated that, according to City records, the two sites combined are 4.9 acres (2.3 and 2.6 acres).*

Viability Sites - Comparison Matrix

		<u>San Clemente</u>		<u>Rancho Mission Viejo</u>
		<i>Ave Vista Hermosa West Side of Vista Hermosa Sports Park</i>	<i>SW Corner Ave Vista Hermosa & Ave La Pata Next to Fire Station 59</i>	<i>NE Corner of Gibby Rd. & Coyotes Rd. County Unincorp. / Rancho MV</i>
1	Current Property Owner	City of San Clemente	City of San Clemente	Rancho Mission Viejo PA 3 Development LLC.
2	Location, Response Time & Logistics	Approx .1.6 miles from I-5, moderate traffic, potential rush hour delays	Approx. 2.1 miles from I-5, moderate traffic, potential rush hour delays	Approx. 0.6 miles from Ortega Hwy SR 74; minimal neighborhood traffic, quick access to Ortega Hwy SR 74
3	Site Ingress/Egress	Development of signalized intersection at entrance recommended	Recommend sharing ingress/egress with FS 59 to use existing FS's signalized intersection	Upon opening of the facility, paved access will be directly available south to Ortega Highway via Gibby Road and North to Cow Camp Road.
4	Site Size, Configuration & Topography	Approx. 2.2 acres usable (on portion of lot intended for OCFA use); topography is manageable	Approx. 2.3 acres usable (on portion of lot intended for OCFA use); regular in shape and level	Approx. 5.0 acres usable; regular in shape and level. Pad will be engineering certified and include all necessary utilities and meet all environmental requirements (i.e., water quality)
5	Zoning	Public Open Space	Neighborhood Commercial	Rancho Mission Viejo Planned Community, Urban Activities Center designation.

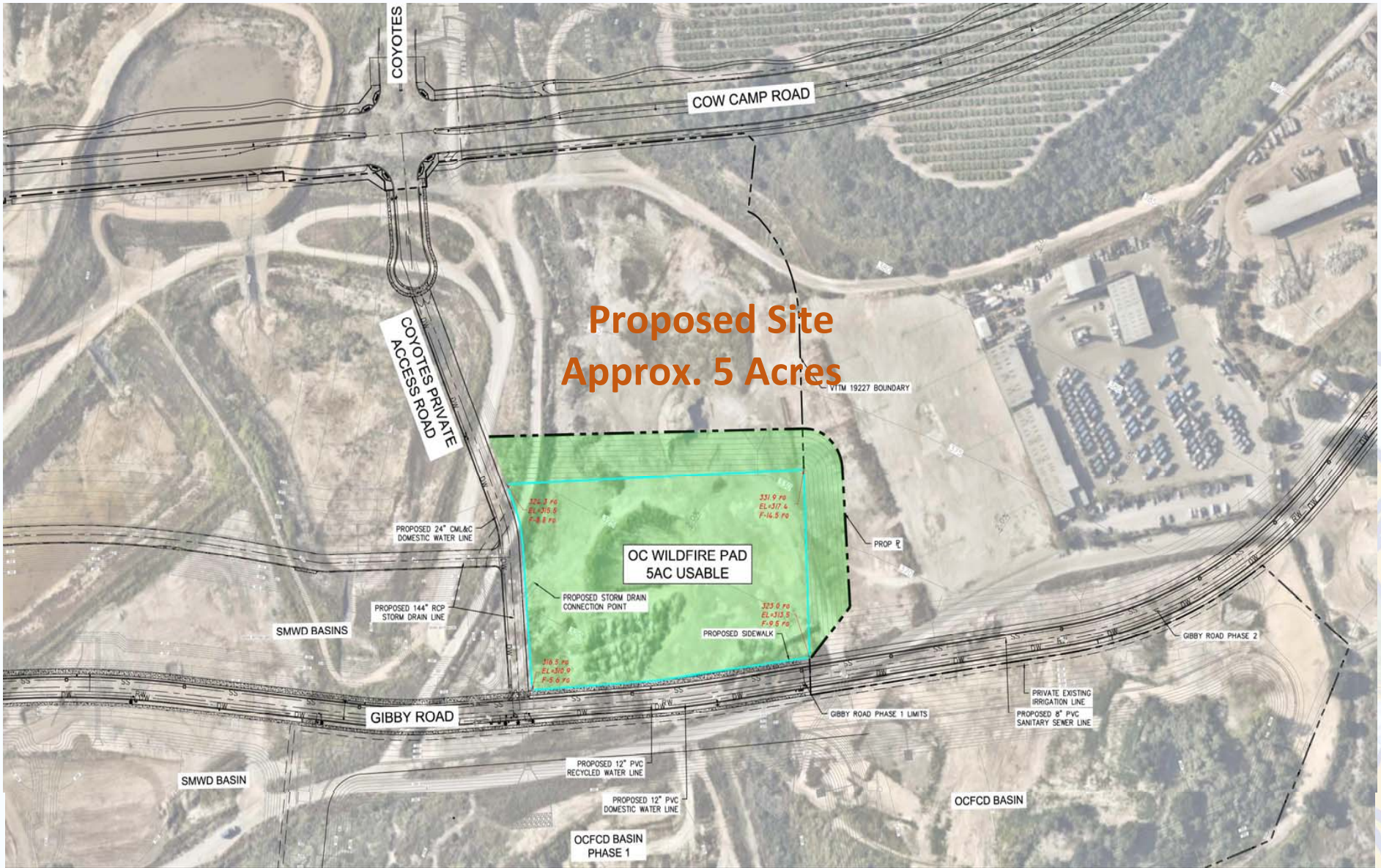
Viability Sites - Comparison Matrix

		<u>San Clemente</u>		<u>Rancho Mission Viejo</u>
		<i>Ave Vista Hermosa West Side of Vista Hermosa Sports Park</i>	<i>SW Corner Ave Vista Hermosa & Ave La Pata Next to Fire Station 59</i>	<i>NE Corner of Gibby Rd. & Coyotes Rd. County Unincorp. / Rancho MV</i>
6	Timeline & Schedule	Site is currently available. Per scheduling of City Council meeting for project approval, and normal processing of entitlements and City building permits	Site is currently available. Per scheduling of City Council meeting for project approval, and normal processing of entitlements and City building permits	No Public hearings are required. Building site available in December 2024, final completion of the facility possible by 2026.
7	Compatibility	Usage potentially not compatible with planned community center on same site	Compatible, site is adjacent to OCFA Fire Station 59	Site located adjacent to regional flood control and water basins associated with the Ranch development. Close to SMWD to Trampas Water Reservoir for helicopter refueling
8	Preliminary Due Diligence	<ul style="list-style-type: none"> • Flood zone = No • Fault line = No • Wells/UG Tank = No • Landslide Risk = Potential due to slope at southern portion 	<ul style="list-style-type: none"> • Flood zone = No • Fault line = No • Wells/UG Tank = No • Landslide Risk = No portion 	<ul style="list-style-type: none"> • Flood zone = No • Fault line = No • Wells/UG Tank = No • Landslide Risk = No
9	Proposed Land Lease or Purchase?	Ground lease with City	Ground lease with City	Purchase / OCFA ownership

San Clemente



Rancho Mission Viejo



San Clemente

Preliminary Site Plan – Proposed Site 1

San Clemente Site 1

----- Boundary Line

6,000 SF – Office/Admin Building

2,000 SF – Restroom/Locker Facilities

24,000 SF – Fleet Bay

40 Parking Spaces

*Approximately 1.7 acre of sloped landscape

San Clemente Site 1 & 2 Total

----- Boundary Line

6,000 SF – Office/Admin Building

2,000 SF – Restroom/Locker Facilities

52,000 SF – Fleet Bay

80 Parking Spaces

*Approximately 1.7 acre of sloped landscape



San Clemente

Preliminary Site Plan – Proposed Site 2

San Clemente Site 2
 ----- Boundary Line
 28,000 SF – Fleet Bay
 40 Parking Spaces



San Clemente Site 1 & 2 Total
 ----- Boundary Line
 6,000 SF – Office/Admin Building
 2,000 SF – Restroom/Locker Facilities
 52,000 SF – Fleet Bay
 80 Parking Spaces
 *Approximately 1.7 acre of sloped landscape

Rancho Mission Viejo

Preliminary Site Plan

Rancho Mission Viejo Site:

----- Boundary Line

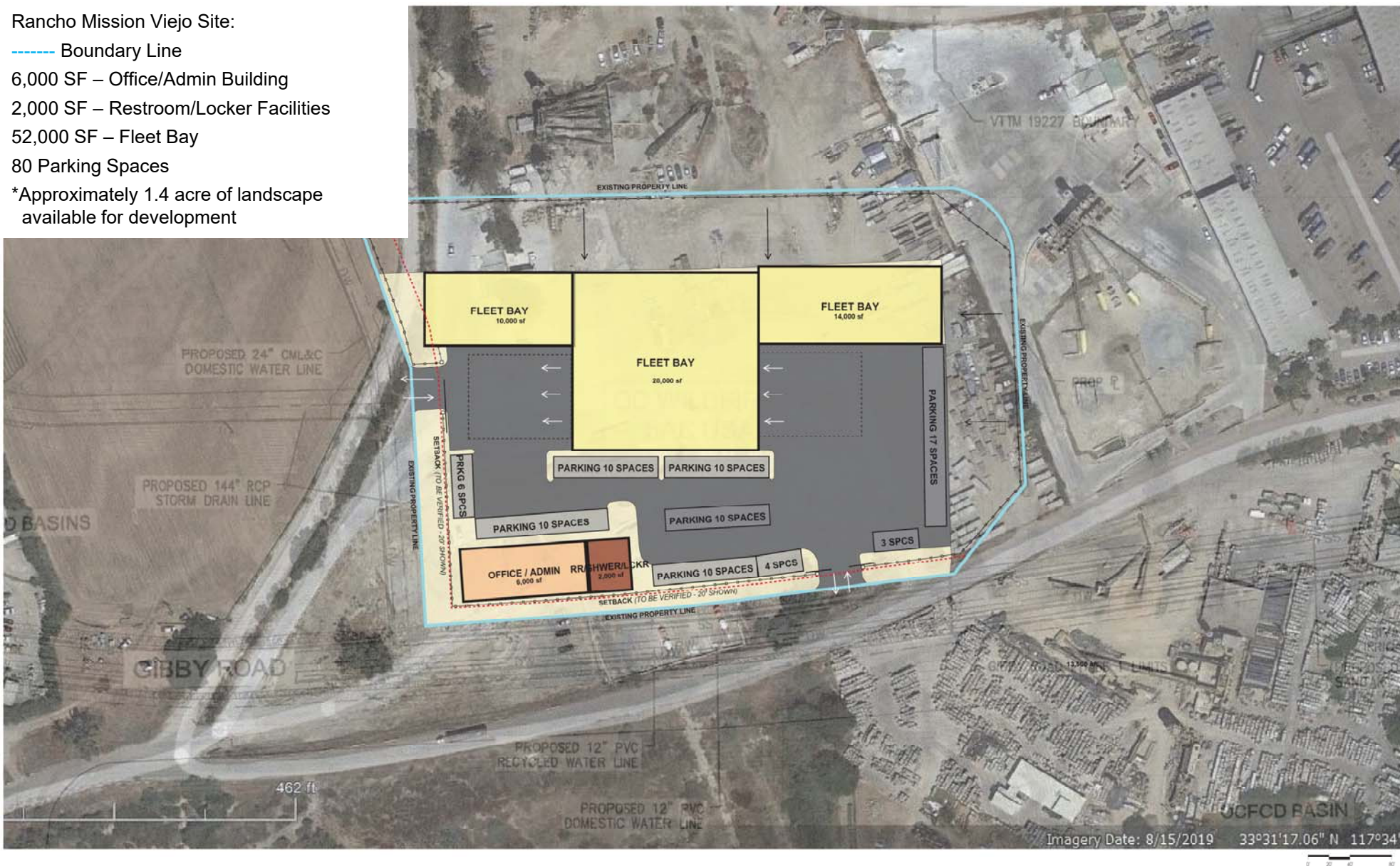
6,000 SF – Office/Admin Building

2,000 SF – Restroom/Locker Facilities

52,000 SF – Fleet Bay

80 Parking Spaces

*Approximately 1.4 acre of landscape available for development



Wildfire Resource Center

Additional “Nice-to-Have” Features (based on available space)

	San Clemente	Rancho Mission Viejo
	<i>Can Potentially Accommodate</i>	<i>Can Potentially Accommodate</i>
EOC / Classroom / Community Room	1,500 SF	3,000 SF
Workshop	2,500 SF	2,500 SF
Workout / Gym	N/A	1,800 SF
Office / Flex Space	N/A	10,000 SF
Helicopter Pads / Heliport	Note*	Note*

**The potential inclusion of a Heliport would be considered only upon evaluation by a heliport design consultant to evaluate efficacy of having a heliport at either site.*

Recommended Actions

Recommended Action

Provide direction to staff regarding which site the Board would like to pursue for OCFA's future Wildfire Resource Center, subject to successful price and term negotiations as directed by the Board, and subject to any applicable due diligence related to the selected site.



ADDITIONAL INFORMATION PROVIDED BY CITY OF SAN CLEMENTE

The following information, relative to the proposed San Clemente site, was provided by Chris Duncan/Mayor, City of San Clemente:

San Clemente Proposal

San Clemente's combined site acreage is just about 5 acres as well (2.3 and 2.6) according to city records. This is the same as the RMV property. Entitlements would be issued almost immediately given the city owns the property supports the project. It can be built as soon as the design is submitted and approved (maybe even early next year). Utilities are already on site and can be hooked up at virtually no expense, unlike at RMV. The presence/co-location of Station 59 is a huge benefit to OCFA and its firefighters. The location in the community park aligns with OCFA's mission to integrate into the community. The two locations only enhances this community integration and presence. It is located adjacent to an existing trail system, which directly benefits the hand crew operators who can practice on the trails. There are also existing workout areas, including sports fields and a community pool. It is near other amenities (grocery markets, hardware stores, etc.), enhancing the crew's operational efficiency and quality of life. It is located perfectly at the intersection of two major arterial roads right in the middle of a high fire zone. It is in a community of people who are losing access to property insurance as we speak and, according to the CA Insurance Commissioner, the station would provide these residents with immediate relief. It is in a cash contract city, another key OCFA priority. San Clemente has experienced major and destructive wildfires before and is just north of and directly adjacent to Camp Pendleton, where a wildfire burns toward San Clemente as I write this. San Clemente offers a \$1.6 million City contribution. The development will include an Emergency Operations Center/training room (not a community center), which is yet another OCFA amenity. The OCFA contractor's assessment shows the San Clemente properties are valued at a combined \$16 million, twice RMV's value. This is a huge commitment to OCFA by San Clemente. Rep. Mike Levin is seeing an additional \$3 million in federal funding for the San Clemente site.

RMV Proposal

Contrast this with RMV's proposal, which is about the same size, albeit on one contiguous lot. However staff has indicated that being contiguous is not a factor. The sites are equally usable. Not a contract city. Far from any existing community. Not ready to be built for a minimum of 1.5-2 years. Unknown/uncontrolled entitlement process with the County. Utility line cost estimate of \$2 million is low and is in today's dollars. It will be more expense in 2025. With the rate of inflation, in 2025 dollars the cost of infrastructure to the remote location could be more than double that amount. OCFA would owe an unknown actual cost, whatever RMV determines that is. In contrast, San Clemente comes at zero cost to the OCFA, plus a substantial city contribution. Unlike San Clemente, RMV offers no contribution. No community benefit because there is no resident community at the site and may never be. No quality of life enhancements for hand crew at the remote location. No existing trails. No documented history of wildfires. No connection/relationship with Camp Pendleton.

Conclusion

All factors weigh in favor of San Clemente and San Clemente is the fiscally prudent option.

ADDITIONAL INFORMATION PROVIDED BY CITY OF SAN CLEMENTE

The following information, relative to the proposed San Clemente site, was provided by Andy Hall/City Manager, City of San Clemente:

Thank you for an opportunity to provide some input in relation to the placement of a Wildfire Resource Center in the County. Regardless of where the facility is eventually located, it will be a great benefit for all of our communities as we face the real and growing threat of wild fires due to encroachment into fire prone areas, wet and dry seasonal cycles, and the many other factors that result in fire hazards. It is not only obvious, but in full disclosure, I am recommending the selection of the City of San Clemente for placement of the Wildfire Resource Center. The information in the report prepared by staff will be very beneficial to the Board in their decision making process. I would like to augment some of the information in the report that might also be helpful as the Board members are faced with this difficult decision.

Time is of the Essence

Wildfire danger is real and present at this very moment. Every day that goes by without taking every possible precaution places lives and property in harm's way. The City of San Clemente is dedicated to streamlining the review process to allow the project to proceed as quickly as the facility can be designed and engineered. I am confident that working together, we may also be able to process elements of the project concurrently so that some of the entitlement process can be underway as final details of design are completed. This is justified by the fact that residents in the City of San Clemente are faced with losing fire insurance for their homes, or struggling to find insurance for new investment. The presence of a Wildfire Resource Center may very well impact the insurance availability and costs for existing, not future, residents we have all committed to protect. In the future, it may very well be necessary to consider an additional Resource Center, but with the urgent needs of today, it makes a lot of sense to place the facility in a location impacted at this moment. Historically, the City of San Clemente has been as impacted by wildfire as any community in the County.

Enhancement of Existing Services

The proposed sites in San Clemente are on two City owned parcels. One of the parcels is located immediately adjacent to an existing Fire Station (59) and the second parcel is a short distance away separated by a City Park. While at first glance this may appear to present an operational challenge, viewed through a different lens, it could also be an operational advantage. The cross-training, collaboration, support and other operational advantages of being located next to an existing Fire Station are obvious and there is no need to further discuss them in this response. However, the potential to engage in community education, fire prevention, combined community training with wildland fire training at a site just a short distance away without any interference of daily operations could be off the charts. Imagine a community meeting taking place during a time of active wildfire or high fire danger alert in a training room/EOC separated from the operational needs of fighting an active or impending fire. Keeping operational interference to a minimum while engaging with the community would be ideal.

The park itself should be viewed as a benefit. Access to recreational facilities, ball/soccer fields, swimming facilities, trails, and other amenities will not only improve the quality of the workplace for your firefighters, but increase the opportunity for community interaction and education. Firefighting begins and ends with education. The more people that can be educated about steps that can be taken to reduce fire danger before a fire starts increases the chance for success in fighting a wild fire. Without question, this location will provide opportunities for enhance your current firefighting efforts.

ADDITIONAL INFORMATION PROVIDED BY CITY OF SAN CLEMENTE

Potential Project Delays and Impediments

The project sites in San Clemente are already served by functioning infrastructure with capacity to provide the necessary utilities. If other sites under consideration do not have existing utilities, there is a potential for project delays and impediments while utility plans, environmental reviews, and construction activities commence. The potential for cost overruns associated with site preparations including access and utilities are minimized in San Clemente because the proposed sites are essentially development ready. While design and compatibility issues can be more delicate in an area with existing development, I am confident that there is an intent to be a first class facility in any location that is chosen. Design elements compatible with the existing Fire Station would be very supported in the City of San Clemente.

Workplace Enjoyment

Firefighters are trained to adapt to difficult and even uncomfortable setting in which to work. However, morale and job satisfaction are impacted by the workplace environment. Being located near a park, local restaurants, close to the coastal environment, and similar factors can lead to improved job satisfaction, retention, recruitment, and other key employment factors. The City of San Clemente is simply a fantastic place to work, live and play. Many firefighters already call our community home!

Assisting a Contract City

The City of San Clemente is proud to be contracted with the Orange County Fire Authority for fire services. Without question, the decision to place the Wildfire Resource Center in San Clemente would benefit one of the contract cities in your organization. In turn, if the facility is located in San Clemente, the City is willing to accept the fact that training opportunities, meetings and other operational needs for the region will need to be accommodated in the City. The City of San Clemente is ready to accept that responsibility.

In summary, I know the factors I have highlighted above are ancillary and secondary to the actual construction and operational needs of the Orange County Fire Authority. However, whenever a project that will cost many millions of tax payer dollars is contemplated, these factors are important. Again, thank you for the chance to provide some additional input. I know this is a very difficult decision and I know the right conclusion that best serves the County will be made by the Board.

ADDITIONAL INFORMATION
PROVIDED BY RANCHO MISSION VIEJO



October 12, 2023

Mr. Jim Ruane
Orange County Fire Authority
1 Fire Authority Road
Irvine, CA 92602

BY ELECTRONIC MAIL TO

Re: OCFA Wildland Resource Center (Camp 18) Site Selection

Dear Mr. Ruane:

I was recently informed that there is some confusion, or misinformation, regarding the use of the Rancho Mission Viejo site as the proposed Wildland Resource Center. So that the record is clear, please understand:

1. **The Land Is Free.** We committed to OCFA that we would work with you to maximize the use of the OCFA grant funds such that you could realize this facility without busting your budget. We were under the impression that the proposed cost structure for the purchase of the land was well within your proforma. However, if that does not work, please know we will just give it to you free of cost. Our partnership is that valuable.
2. **The Site is Nearly Ready.** The site is graded, flat, and has immediate access to Ortega Highway and Cow Camp Road. It is also less than 1 mile from Los Patrones Parkway providing quick access to neighboring cities, central and north Orange County. There are no further public hearings or environmental reviews to be done. The site will be ready for building construction by December 2024 and the new Wildland Resource Center could be operational by 1st quarter of 2026.
3. **We Can Help You Get It Done.** We develop land and construct buildings every day and have past experience and expertise in building fire stations for OCFA. We stand ready to help OCFA plan and build this important facility.

We think this site compares favorably to all the other sites OCFA has looked at and agree with Staff's recommended action. Its conclusions regarding the operational benefits and response times are undeniable. Thank you for your consideration.

Sincerely,



Mike Balsamo
SVP, Governmental Relations
Rancho Mission Viejo, LLC

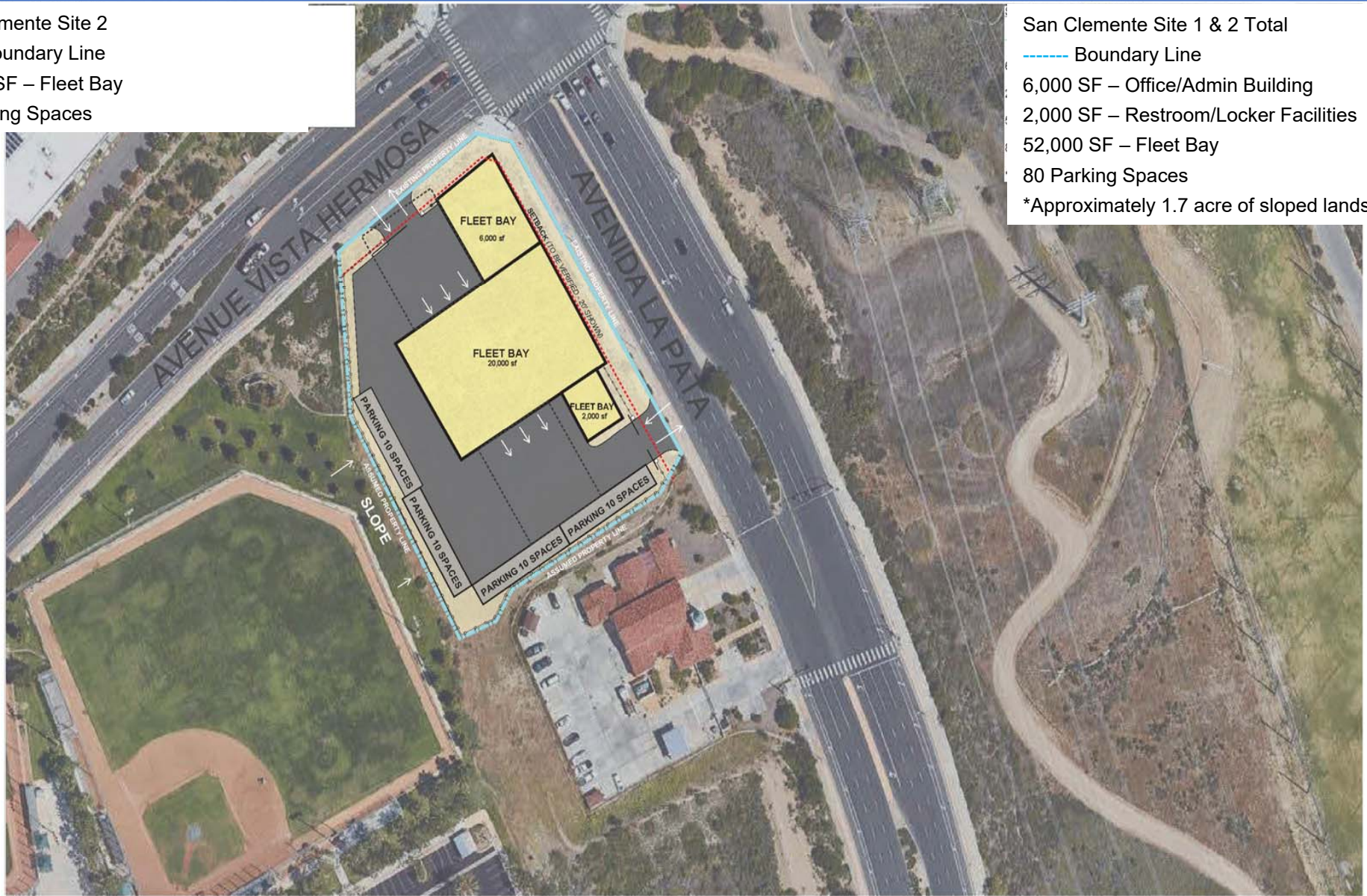
Cc: Chief Brian Fennessy
OCFA Board of Directors (through Clerk of the Board)

ADDITIONAL INFORMATION PROVIDED BY RANCHO MISSION VIEJO

	RANCHO MISSION VIEJO	SAN CLEMENTE
Land Area	5.0 acres	4.6 acres
Contiguous Land Area	5.0 acres	2.2 acres and 2.4 acres
Connection to State Highway	Yes	No
OCFA Real Estate Interest	Ownership	Lease
Land Cost	\$0	\$0
Zoning	Planned Community; Urban Activity Center	Public Open Space; Neighborhood Commercial
Permitted Use	Yes	Unknown
Mass Graded	Yes	Unknown
Grading Permit Issued	Yes	Unknown
Graded for Development	Currently Underway	Unknown
Biological Testing Complete	Yes	Unknown
Traffic Study Complete	Yes	Unknown
Soils Testing Complete	Yes	Unknown
Water Quality Facilities in Place	Yes	Unknown
CEQA Finished	Yes	Unknown
Potable water To Site	Early 2025	Unknown
Sewer to Site	Early 2025	Unknown
Stormdrain to Site	Early 2025	Unknown
Ingress Egress	Paved Access directly available	New Traffic Signal Recommended
Distance to Ortega Hwy SR 74	.4 mile	4 miles
Distance to Mission Viejo	4.7 miles	5.8 miles
Distance to San Juan Capistrano	2.5 miles	1.2 miles
Distance to Rancho Santa Margarita	4.7 miles	8.5 miles
Distance to San Clemente	2.7 miles	0 miles

San Clemente Site 2
 ----- Boundary Line
 28,000 SF – Fleet Bay
 40 Parking Spaces

San Clemente Site 1 & 2 Total
 ----- Boundary Line
 6,000 SF – Office/Admin Building
 2,000 SF – Restroom/Locker Facilities
 52,000 SF – Fleet Bay
 80 Parking Spaces
 *Approximately 1.7 acre of sloped landscape



San Clemente Site 1

----- Boundary Line

6,000 SF – Office/Admin Building

2,000 SF – Restroom/Locker Facilities

24,000 SF – Fleet Bay

40 Parking Spaces

*Approximately 1.7 acre of sloped landscape

San Clemente Site 1 & 2 Total

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Rancho Mission Viejo Site:

----- Boundary Line

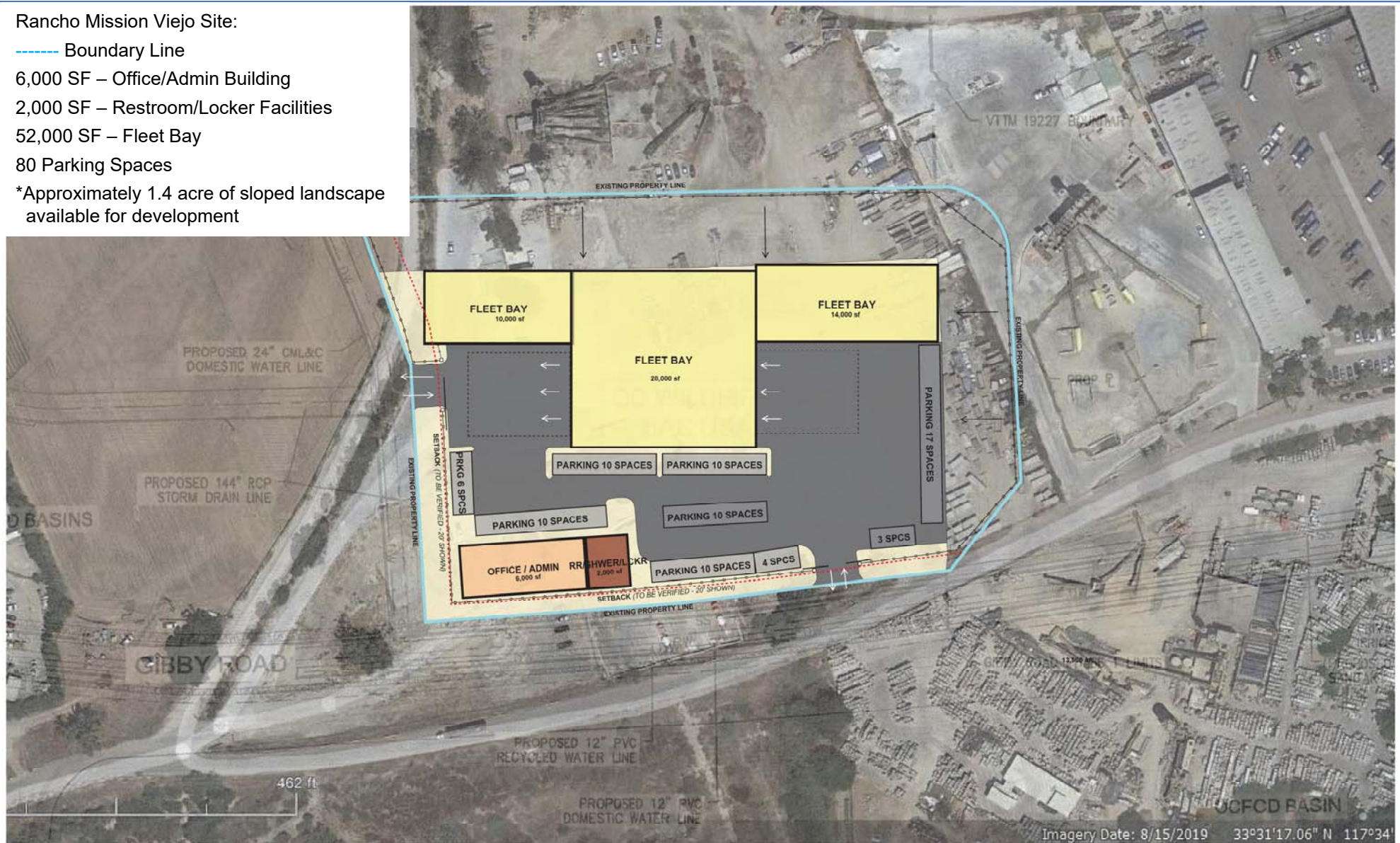
6,000 SF – Office/Admin Building

2,000 SF – Restroom/Locker Facilities

52,000 SF – Fleet Bay

80 Parking Spaces

*Approximately 1.4 acre of sloped landscape available for development



**Orange County Fire Authority
Wildfire Resource Center Site Selection
Questions and Answers**

1. What was the process for determining viable sites for the Center?

OCFA Operations and Property Management staff established the general site requirements for development and operation of facilities sufficient to support up to 100 fire crew, supervisors, and equipment operator staff, and associated fire apparatus and equipment:

- Roughly 5 useable acres
- Travel Logistics (roadway access) to reach wildland fire areas - Location, typical/peak traffic conditions, site ingress/egress
- Property Attributes – Size, topography, zoning, neighborhood compatibility, environmental conditions (flood zone, wells, soil conditions)
- Availability and Budget feasibility

Based on the above criteria, OCFA staff, working with its real estate advisory firm, and utilizing a number of real estate brokerage firms, narrowed the most viable sites to the San Clemente site (2 parcels in close proximity) and Rancho Mission Viejo (RMV – unincorporated county), as further described in the Wildfire Resource Center Site Evaluations Power-Point presentation to the Board (included as Attachment 1 to the staff report).

2. What is the difference between a Fire Station and the proposed Wildfire Resource Center?

OCFA Fire Stations house firefighters (Captains, Engineers, and Firefighters) along with fire engines, fire trucks, and/or medic units. Fire Stations are strategically located to meet our travel time/response time performance standard of 5-minutes/90% of the time (Code 3, lights and sirens) to customers experiencing a fire or medical emergency within that station's geographical response area. OCFA's fire station personnel also serve as initial response (Code 3) on wildfires in OCFA's jurisdiction, and they are then supplemented by air resources, handcrews, bulldozers, etc. as needed based on the specific needs of the incident.

The proposed Wildfire Resource Center will house Handcrew Firefighters, Crew Supervisors, dozers and other related heavy equipment and apparatus used to respond to wildfires throughout OCFA's jurisdiction. The Wildfire Resource Center will not house fire engines, fire trucks, or firefighters. Handcrew personnel responding from the Wildfire Resource Center and/or project sites intend to arrive at the scene of a wildfire incident as quickly as possible; however, handcrew units do not respond Code 3. These units travel in larger vehicles, transporting numerous personnel and towing heavy equipment to the scene, all of which naturally requires more travel time as compared to the initial rapid response provided by firefighters serving from fire stations. There are no industry accepted response time performance standards for handcrews and bulldozers.

**Orange County Fire Authority
Wildfire Resource Center Site Selection
Questions and Answers**

3. What is the minimum expected time for the sites to be entitled?

San Clemente

In consultation with OCFA's real estate consultant, staff's understanding is that the timeline for entitlements will be dependent on the city's project review and approval process. Staff has anticipated a normal processing timeline for entitlements and City building permits, although the City has discussed the possibility of an expedited process (see Attachment 2).

RMV

Staff has anticipated a normal processing timeline for entitlements and City building permits. The landowner/developer has stated that the property would be available for development beginning in December 2024.

4. What are the known and anticipated costs for development of the sites?

San Clemente

Site acquisition costs are to be determined via closed session regarding Real Property Negotiations. Ongoing costs for the OCFA facilities would include facility repairs/maintenance, and all utilities, typical of a comparable sized OCFA fire station.

RMV

Site acquisition costs are to be determined via closed session regarding Real Property Negotiations. Like the San Clemente sites, ongoing costs for the OCFA facilities would include facility repairs/maintenance, and all utilities, typical of a comparable sized OCFA fire station.

5. Has a community room been entitled for the San Clemente site?

In discussions with city staff, they explained the City's desire to incorporate a community/training room into the Wildfire Resource Center project, which could potentially be entitled as part of the Wildfire facility approval process.

6. Are there community benefits for either site that are not discussed in the Agenda Staff Report?

The community benefits associated with the proposed Wildfire Resource Center will be regional in nature, enabling OCFA to more efficiently house, train, and potentially expand its Hand Crew Program as the State continues to recognize the need for these services and provide increased levels of funding for these services. These community benefits are attributable to both the San Clemente and RMV sites, and would be realized by all OCFA jurisdictions served.

7. If needed, will either site be able to expand in the future to support air operations?

OCFA intends to continue running its daily Air Operations Program from the Fullerton Airport; however, the ability to have additional sites in Orange County for strategically pre-positioning OCFA helicopters when needed is considered a "nice-to-have" feature that can potentially be fulfilled by either site.



Orange County Fire Authority
AGENDA STAFF REPORT

**Board of Directors Meeting
November 16, 2023**

**Agenda Item No. 3B
Discussion Calendar**

Amended and Restated Employment Agreement with the Fire Chief

Contact(s) for Further Information

Stephanie Holloman, Assistant Chief stephanieholloman@ocfa.org 714.573.6353
Human Resources Director

David E. Kendig dkendig@woodruff.law 714.415.1083
General Counsel

Summary

This agenda item is submitted to request approval of an amended and restated Employment Agreement with the Fire Chief.

Prior Board/Committee Action

Pursuant to Board Rule 11, negotiations with the Fire Chief were conducted by the Board's designated representatives following the Board's closed session direction.

RECOMMENDED ACTION(S)

Following the Closed Session negotiations of amendment terms, approve and authorize the Board Chair to execute an amended and restated Employment Agreement with the Fire Chief.

Impact to Cities/County

Not Applicable.

Fiscal Impact

The Fire Chief's employment agreement is funded by appropriations in the FY 2023/24 budget for salaries and benefits for the Fire Chief position.

Discussion

On April 16, 2018, Brian Fennessy was appointed the Authority's Fire Chief and an initial employment agreement was approved by the Board. A proposed amended and restated Employment Agreement will be circulated after the conclusion of Closed Session negotiations, which will take place prior to the consideration of this item. The successor Employment Agreement is intended to supersede and replace all prior versions of the Fire Chief's employment agreement and amendments.

Attachment(s)

Proposed amended and restated Employment Agreement (to be circulated after Closed Session negotiations conclude)