Arroyo Grande Library Remodel Project

800 West Branch Street

Arroyo Grande, CA

Project Number: 320196

CONTRACT DOCUMENTS VOLUME 1

Division 00 and Division 01

County of San Luis Obispo, Project No. 320196
Bid Document Set

September 25th

County of San Luis Obispo
Department of Public Works

TABLE OF CONTENTS

CONTRACT DOCUMENT – VOLUME 1

DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS

00 11 16	NOTICE TO BIDDERS
00 21 13	INSTRUCTIONS TO BIDDERS
00 41 13	BID FORM
00 43 00	SUPPLEMENTS TO BID FORMS
00 50 00	AGREEMENT
00 60 00	BOND REQUIREMENTS AND FORMS AND GUARANTEES
00 61 00	ENGINEER'S CERTIFICATES
00 70 00	GENERAL CONDITIONS
00 75 00	BID PROTEST RULES
00 81 00	NON-DISCRIMINATION
00 85 00	DRAWINGS AND SPECIFICATIONS

DIVISION 01 - GENERAL REQUIREMENTS

01 01 00	SUMMARY OF WORK
01 05 00	FIELD ENGINEERING
01 06 00	REGULATORY REQUIREMENTS
01 11 50	ENVIRONMENTAL PROCEDURES
01 12 00	RECYCLING
01 14 00	SPECIAL PROJECT PROCEDURES
01 23 00	ALTERNATES
01 25 00	CONTRACT MODIFICATION PROCEDURES
01 26 00	REQUEST FOR INTERPRETATION (RFI)
01 29 00	PAYMENT PROCEDURES
01 30 00	SUBMITTAL PROCEDURES
01 31 00	PROJECT MANAGEMENT AND COORDINATION
01 32 10	PROGRESS SCHEDULES AND REPORTS
01 40 00	QUALITY CONTROL
01 42 00	REFERENCES
01 45 00	TESTING LABORATORY SERVICES
01 50 00	TEMPORARY FACILITIES AND CONTROLS

01 60 00 PRODUCT REQUIREMENTS

01 70 00 CLOSEOUT REQUIREMENTS

01 73 00 EXECUTION REQUIREMENTS

01 73 19 CUTTING AND PATCHING

01 74 00 CLEANING

01 74 19 CONSTRUCTION WASTE MANAGEMENT

01 79 00 DEMONSTRATION AND TRAINING

END OF VOLUME 1 TABLE OF CONTENTS

TABLE OF CONTENTS

CONTRACT DOCUMENT – VOLUME II
TECHNICAL SPECIFICATIONS

CONSTRUCTION SPECIFICATIONS TABLE OF CONTENTS

00 00 20 Project Information

00 03 00 Table of Contents

DIVISION 02 - EXISTING CONDITIONS

02 41 19 Selective Demolition

DIVISION 03 - CONCRETE

03 30 00 Cast-In-Place Concrete

DIVISION 04 - MASONRY

04 20 00 Unit Masonry

DIVISION 05 - METALS

05 50 00 Metal Fabrications

DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES

06 10 00 Rough Carpentry

06 16 00 Sheathing

06 40 23 Interior Architectural Woodwork

DIVISION 07 - THERMAL AND MOISTURE PROTECTION

07 18 00 Traffic Bearing Waterproof Surfacing

07 21 00 Thermal Insulation

07 50 00 Membrane Roofing

07 62 00 Sheet Metal Flashing and Trim

DIVISION 08 - OPENINGS

08 11 13 Hollow Metal Doors and Frames

08 14 00 Flush Wood Doors

08 36 00 Sectional Overhead Doors

08 40 00 Entrances and Storefronts

08 51 13 Aluminum Windows

08 60 00 Skylights

08 71 00 Door Hardware

08 80 00 Glazing

08 92 00 Louvers and Vents

DIVISION 09 - FINISHES

09 21 13 Portland Cement Plastering

09 29 00 Gypsum Board Assemblies

09 30 00 Tiling

09 51 00 Acoustical Ceilings

09 65 00 Resilient Flooring

09 65 13 Resilient Base and Accessories

09 68 13 Tile Carpeting

09 91 00 Painting

09 93 00 Staining and Transparent Finishing

DIVISION 10 - SPECIALTIES

10 14 00 Signage

10 21 13 Toilet Compartments

10 28 13 Toilet Accessories

10 44 00 Fire Protection Specialties

DIVISION 21 - FIRE SUPPRESSION

21 03 00 Fire Suppression

DIVISION 22 - PLUMBING

22 00 00 Plumbing

DIVISION 23 - HEATING, VENTILATING, AND AIR CONDITIONING (HVAC)

23 00 00 HVAC

23 00 13 General Mechanical Requirements

23 01 30 HVAC System Cleaning Specifications

DIVISION 26 - ELECTRICAL

26 05 00 Common Work Results for Electrical

26 05 01 Selective Electrical Demolition

26 05 19 Low-Voltage Electrical Power Conductors and Cables

26 05 26 Grounding and Bonding of Electrical Systems

26 05 33 Raceways and Boxes for Electrical Systems

26 05 53 Identification of Electrical Systems

26 09 43 Network Lighting Controls

26 24 16 Panelboards and Loadcenters

26 27 26 Wiring Devices

26 28 16 Enclosed Switches and Circuit Breakers

DIVISION 28 - ELECTRONIC SAFETY AND SECURITY

28 13 53 Intrusion Detection

28 31 00 Fire Detection & Alarm

DIVISION 32 - EXTERIOR IMPROVEMENTS

32 80 00 Irrigation

32 90 00 Planting

END OF TABLE OF CONTENTS

APPENDICES

A – CEQA NOTICE OF EXEMPTION, DATED AUGUST 17, 2022

B – PUBLIC CONTRACT CODE SECTIONS 9204 AND 20104 - 20104.6

C – COUNTY OF SAN LUIS OBISPO BUILDING STANDARDS (2024 UPDATE)

D – COUNTY OF SAN LUIS OBISPO ITD WIRING STANDARDS

E – LEAD PAINT SURVEY, BY ASBESTOS INSPECTIONS OF SLO, DATED NOVEMBER 14, 2024

F – ASBESTOS SURVEY REPORT BY ASBESTOS INSPECTIONS OF SLO, DATED NOVEMBER 16, 2024

G – STAGING SITE PLAN SHT AS1.0

H – LANDSCAPE PLANTING PLAN

I – PERMIT DOCUMENTS

PROJECT PLANS

Arroyo Grande Library Renovation and Addition, Arroyo Grande, CA Project No. 320196, permitted date 06/27/2025.

SHEET INDEX

T1.0	TITLE SHEET
T2.1	OCCUPANCY & EGRESS LOWER FLOOR
T2.2	OCCUPANCY & EGRESS UPPER FLOOR
T3.1	CAL GREEN CHECKLIST
T3.2	CAL GREEN CHECKLIST
T3.3	CAL GREEN CHECKLIST
T4.1	REQUIRED SPECIAL INSPECTIONS
ADA1.1	ACCESSIBILITY NOTES & STANDARD DETAILS
ADA1.2	ACCESSIBILITY NOTES & STANDARD DETAILS
AS1.0	OVERALL ARCHITECTURAL SITE PLAN
AS1.1	ENLARGED ARCHITECTURAL SITE PLAN
C1.0	COVER SHEET
C2.0	NOTES
C3.0	GRADING AND DRAINAGE PLAN
C4.0	UTILITY PLAN
C5.0	SECTIONS AND DETAILS
C5.1	SECTIONS AND DETAILS
EC1.0	EROSION AND SEDIMENT CONTROL PLAN
EC2.0	EROSION AND SEDIMENT CONTROL DETAILS
FP 1	GENERAL NOTES, FIRE SPRINKLER SITE PLANS & BUILDING DATA
FP 2	FIRST FLOOR FIRE SPRINKLER PLAN
FP 3	SECOND FLOOR FIRE SPRINKLER PLAN
FP 4	SECTIONALS & FIRE SPRINKLER DATA SHEETS
FP 5	FIRE SPRINKLER PARTS, CUT SHEETS & DETAILS
FP 6	SEISMIC BRACE CALCULATIONS AND BRACE DETAILS
FA-1/3	FIRE ALARM PLANS
FA-2/3	FIRE ALARM PLANS
FA-3/3	FIRE ALARM PLANS
A1.1	DEMOLITION LOWER FLOOR PLAN
A1.2	DEMOLITION UPPER FLOOR PLAN
A2.1	PROPOSED LOWER FLOOR PLAN
A2.2	PROPOSED UPPER FLOOR PLAN
A3.1	ENLARGED RESTROOM PLANS

A4.1	LOWER FLOOR REFLECTED CEILING PLAN
A4.2	UPPER FLOOR REFLECTED CEILING PLAN
A4.5	ROOF PLAN
A5.1	EXTERIOR ELEVATIONS
A5.2	EXTERIOR ELEVATIONS
A6.1	SECTIONS
A6.2	SECTIONS
A7.1	INTERIOR ELEVATIONS
A7.2	INTERIOR ELEVATIONS
A8.1	DOOR, WINDOW, AND FINISH SCHEDULES
A9.1	ARCHITECTURAL DETAILS
A9.2	ARCHITECTURAL DETAILS
A9.3	ARCHITECTURAL DETAILS
A9.4	ARCHITECTURAL DETAILS
S-1.1	STRUCTURAL TITLE SHEET
S-1.2	STRUCTURAL SPECIFICTIONS
S-1.3	SPECIAL INSPECTIONS
S-2.1	FOUNDATION PLAN
S-2.2	FLOOR FRAMING PLAN
S-2.3	ROOF FRAMING PLAN
S-3.1	STRUCTURAL DETAILS
S-3.2	STRUCTURAL DETAILS
S-3.3	STRUCTURAL DETAILS
En1.0	ENERGY COMPLIANCE ENVELOPE
En1.1	ENERGY COMPLIANCE ENVELOPE
En1.2	ENERGY COMPLIANCE ENVELOPE
En1.3	ENERGY COMPLIANCE ENVELOPE
M0.0	MECHANICAL NOTES, LEGEND, & ABBREAVIATIONS
M1.0	MECHANICAL SCHEDULES
M1.1	MECHANICAL SCHEDULES
M1.2	MECHANICAL DETAILS
M1.3	MECHANICAL DETAILS
M2.0	MECHANICAL ZONE PLANS
M3.0	MECHANICAL DEMO PLAN - LOWER FLOOR
M3.1	MECHANICAL DEMO PLAN - UPPER FLOOR
M3.2	MECHANICAL DEMO PLAN - ROOF
M4.0	MECHANICAL OVERALL LOWER FLOOR PLAN
M4.1	MECHANICAL ENLARGED LOWER FLOOR PLAN - NORTH
M4.2	MECHANICAL ENLARGED LOWER FLOOR PLAN - SOUTH
M5.0	MECHANICAL OVERALL UPPER FLOOR PLAN
M5.1	MECHANICAL ENLARGED UPPER FLOOR PLAN - NORTH
M5.2	MECHANICAL ENLARGED UPPER FLOOR PLAN - SOUTH
M6.0	MECHANICAL ROOF PLAN
MC1.0	MECHANICAL CONTROLS
MC1.1	MECHANICAL CONTROLS
P0.0	PLUMBING NOTES, SCHEDULE, LEGEND, AND ABBREVIATIONS
P0.1	PLUMBING DETAILS
P1.0	PLUMBING OVERALL LOWER FLOOR PLAN - DEMO

P1.1 PLUMBING OVERALL UPPER FLOOR PLAN - DEMO
P2.0 PLUMBING OVERALL LOWER FLOOR PLAN
P2.1 PLUMBING ENLARGED FLOOR PLANS
P3.0 PLUMBING OVERALL UPPER FLOOR PLAN
P4.0 PLUMBING ROOF PLAN

E0.1 GENERAL NOTES, SYBMOBLS, AND ABBREAVIATIONS
E0.2 TITLE 24 COMPLIANCE DOCUMENTATION
E0.3 TITLE 24 COMPLIANCE DOCUMENTATION
E1.1 SINGLE LINE DIAGRAM
E1.2 ELECTRICAL SCHEDULES
E1.3 ELECTRICAL SCHEDULES
E1.4 LIGHTING SCHEDULES
E2.1 LOWER FLOOR POWER PLAN
E2.2 UPPER FLOOR POWER PLAN
E2.3 ROOF POWER PLAN
E3.1 LOWER FLOOR LIGHTING PLAN
E3.2 UPPER FLOOR LIGHTING PLAN
E4.1 ELECTRICAL DETAILS

99 TOTAL SHEETS

END OF CONTENTS

SECTION 00 11 16
NOTICE TO BIDDERS

1. PROJECT IDENTIFICATION

Notice is hereby given that sealed bids will be received by the County Clerk-Recorder of the County of San Luis Obispo, California, at the **Katcho Achadjian Government Center** at **1055 Monterey Street, Suite D120 (1st Floor), San Luis Obispo, CA 93408**, before 3:00 pm on **Thursday, October 23, 2025** for the project entitled: **Arroyo Grande Library Remodel, 800 W. Branch Street, Arroyo Grande, CA 93420.**

2. DESCRIPTION OF THE WORK

The scope of work required to be performed by the Contractor comprises the remodel of the approximately 11,967 SF Arroyo Grande Library. The scope of work of the project includes, but is not limited to, the renovation of the public restrooms, new children's restroom, accessibility compliance upgrades, selective demolition, new interior partition walls, new floor and ceiling finishes, new doors and hardware as required, new light fixtures and electrical/IT/Data as required, new heating, ventilation and air conditioning (HVAC) units, new fire suppression system and fire alarm system, new addition for expanded office area, including space for a Veteran's Services Office and related sitework.

The project is located at 800 W. Branch Street, Arroyo Grande, CA 93420. The scope of work is described in these Specifications and in Project Plans.

Refer to Section 01 01 00 Summary of Work for Base Bid, and Section 01 23 00 Alternates for Alternates Bid Items scope of work.

3. EXAMINATION AND PROCUREMENT OF DOCUMENTS

Contract Documents may be obtained from the following website:

https://www.slocounty.ca.gov/departments/central-services/purchasing-services/services/bid-rfp-opportunities

4. PRE-BID SITE VISIT:

A **mandatory pre-bid meeting** will be held at the site for this project on **Thursday, October 2, 2025, at 10 a.m.**

5. REQUEST FOR INFORMATION INTERPRETATION AND PRODUCT SUBSTITUTION REQUESTS

All requests for information/interpretation (RFI), clarification, questions, etc., shall be submitted in writing through the Questions section of the bid on the Public Purchase website. Request for information/interpretation (RFI), clarification, questions, etc., will not be accepted after 5:00 pm on **Monday, October 13, 2025,** and shall be submitted through the following website:

https://www.slocounty.ca.gov/departments/central-services/purchasing-services/services/bid-rfp-opportunities

All Product Substitution Requests shall be submitted in writing on the Substitution Request Form found in Specification Section 01 60 00 - Product Requirements. Product Substitution Requests and all supporting documents shall be submitted through the Questions section of the bid on the Public Purchase website. Product Substitution Requests shall be submitted by 5:00 pm on **Monday, October 13, 2025**. Product substitution requests received after that time will be considered late and may be rejected at the discretion of the County. Refer to Specification Section 01 60 00 for additional requirements.

6. BID OPENING

1. Sealed proposals will be received at the office of the County Clerk-Recorder, 1055 Monterey Street, Room D-120, San Luis Obispo, California 93408 before **3:00 p.m. on Thursday, October 23, 2025**, which bids will then be opened and declared at 3:15 p.m. on the above mentioned date at a public meeting at 1055 Monterey Street, Room D-120, by the County Clerk-Recorder.

2. Any bid received at the Office of the County Clerk-Recorder of the County of San Luis Obispo at or after 3:00:00 p.m. on the date specified above will not be accepted, and will be returned to the bidder unopened. A bid received one second after 3:00 p.m. (i.e. after 3:00:00 p.m.) shall not be considered.

3. The Bidder must satisfy themselves prior to submitting its bid by personal examination of the location of the proposed Work and by such other means as they prefer as to the actual conditions and requirements of the Work, and shall not at any time after the submission of the bid, dispute, complain, or assert that there was any misunderstanding in regard to the nature or amount of Work to be done.

7. CERTIFICATION OF BIDS (BID BOND)

Bid must be accompanied by Cash, Certified or Cashier's Check, or a Bidder's Bond secured from a company ADMITTED to transact surety business in the State of California, in the sum of not less than 10% of the amount of the Base Bid, and said Check or Bond shall be made payable to the order of the County of San Luis Obispo as liquidated damages in case the successful bidder fails to file satisfactory bonds and insurance as required by the Contract Documents, or fails or refuses to enter into a Contract within the specified time.

8. GOVERNING LAWS AND REGULATIONS

1. Public Contract Code

The bidding of this project is governed by the California State Public Contract Code. The Contract will be awarded to the lowest responsible bidder, subject to the County's right to reject any or all bids and to waive any informality in the bids or in the bidding. If two or more bids are the same and the lowest, the County may accept the one it chooses.

The State of California Public Contract Code makes provisions for the rejection of bids and sets forth alternate Contract procedures. If all bids are rejected, the County Board of Supervisors, after re-evaluating its project cost estimates, may, subject to the provisions of Section 22038

of the Public Contract Code; (1) abandon the project, (2) readvertise for bids, (3) proceed with the project utilizing County personnel or force account. If no bids are received, the project may be performed by County employees by force account or by negotiated Contract.

2. Specific Materials Products and Control Systems Designated by Brand or Name

Pursuant to Public Contract Code Section 3400(c), the County may make a finding that is described in the invitation for bids that designates certain products, things, or services by specific brand or trade name for the statutorily enumerated purposes. Unless specifically designated in Specification Section 01 13 00, whenever in specifications any material, process or article is indicated or specified by grade, patent, or proprietary name or by name of manufacturer, such specifications shall be deemed to be used for the purpose of facilitating the description of the material, process or article desired and shall be deemed to be followed by words "or equal".

3. Contractor's License

A Contractor is required to be licensed in accordance with the provisions of Division 3, Chapter 9, of the Business and Professions Code.

The bidder must have a Class B license at the time the Contract is awarded. Failure of a bidder to obtain adequate licensing for an award of a Contract shall constitute a failure to execute the Contract and shall result in the forfeiture of the Bidder's Bond.

4. Public Works Contractor Registration and Certified Payrolls

This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. Pursuant to Section 1771.1 of the Labor Code, no contractor or subcontractor shall be qualified to bid on, be listed in a bid proposal (submitted on or after March 1, 2015), or engage in the performance of any contract for public work unless currently registered with the Department of Industrial Relations to perform public work pursuant to Section 1725.5 of the Labor Code. No contractor or subcontractor may be awarded a contract for public work on a public works project (awarded on or after April 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5.

All contractors and subcontractors must furnish electronic certified payroll records directly to the Labor Commissioner (Division of Labor Standards Enforcement). Additionally, the awarded Contractor shall submit certified payroll records to the County on a weekly basis, unless directed otherwise by the County. In addition, awarded Contractor must post job site notices prescribed by regulations.

5. Prevailing Wages

Pursuant to section 1770 et seq. of the California Labor Code, the Contractor and all Subcontractors shall pay not less than the prevailing rate of per diem wages as determined by the Director of the California Department of Industrial Relations and comply with all applicable Labor Code provisions, which include, but are not limited to the employment of apprentices, the hours of labor, and the debarment of Contractors and Subcontractors. The Director of the California Department of Industrial Relations determines the general prevailing wage rates. Copies are available at the DIR website, http://www.dir.ca.gov/DLSR/PWD.

6. Classification Not Covered by Prevailing Rate

Any laborer or mechanic employed to perform Work on the project under this Contract, which Work is not covered by any of the stipulated classifications, shall be paid not less than the minimum rate of wages specified for the classification which most nearly corresponds to the Work to be performed by him and such minimum wage rate shall be retroactive to the time of initial employment of such person in such classification. In the event of any dispute on that question, the question and the information shall be referred for determination to the Board of Supervisors or to any official designated by the Board of Supervisors, whose decision on the question shall be conclusive on the parties to this Contract with the same effect as if the Work performed by such laborer or mechanic had been classified and the minimum rate specified herein.

7. Overtime, Sundays And Holidays

Not less than one and one-half (1-1/2) times the basic hourly rate plus applicable employer payments. The holidays upon which such rates shall be paid shall be all holidays recognized in the collective bargaining agreement applicable to the particular craft, classification or type of worker employed on the project.

8. Apprentices

Attention is directed to the provisions in Sections 1777.5 and 1777.6 of the Labor Code concerning the employment of apprentices by the Contractor or any sub-contractor under them. It is the Contractor's responsibility to submit contract award information to the Department of Industrial relations as required by the Labor Code.

9. Other Requirements

All Bids shall comply with all of the Bidding Requirements set forth in the Contract Documents, including, but not limited to, the Instructions to Bidders in Section 00 21 13.

Any changes, additions, or deletions to the Contract Documents will be in the form of written addenda issued by the County. Any addenda will be posted on the website. Prospective bidders must check the website for addenda or other relevant new information at up to 5:00 p.m. the day before the prescribed date/time for submittal of bids. The County is not responsible for the failure of any prospective bidder to receive such addenda. All addenda so issued shall become a part of this Bid.

All bidders are required to acknowledge and confirm receipt of every addendum in their bid proposal.

The successful bidder will be required to furnish the County with payment and performance bonds, with each issued by a California admitted surety insurer equal to 100% of the Contract Price.

Pursuant to Labor Code section 1771.1:

- A Contractor or Subcontractor shall not be qualified to bid on, be listed in the Bid Proposal, subject to the requirements of Section 4104 of the Public Contract Code, or

engage in the performance of this public works project, unless currently registered with the Department of Industrial Relations and qualified to perform work pursuant to Labor Code section 1725.5. It is not a violation of this section for an unregistered contractor to submit a bid that is authorized by Section 7029.1 of the Business and Professions Code or by Section 10164 or 20103.5 of the Public Contract Code, provided the contractor is registered to perform public work pursuant to Section 1725.5 at the time the contract is awarded.

- This Project is subject to compliance monitoring and enforcement by the Department of Industrial Relations, County of San Luis Obispo, agencies to assure compliance with applicable local, state regulations.

END OF SECTION

SECTION 00 21 13
INSTRUCTIONS TO BIDDERS

1. **DESCRIPTION OF WORK:** The scope of work required to be performed by the Contractor comprises the remodel of the approximately 11,967 SF Arroyo Grande Library. The scope of work of the project includes, but is not limited to, the renovation of the public restrooms, new children's restroom, accessibility compliance upgrades, selective demolition, new interior partition walls, new floor and ceiling finishes, new doors and hardware as required, new light fixtures and electrical/IT/Data as required, new heating, ventilation and air conditioning (HVAC) units, new fire suppression system and fire alarm system, new addition for expanded office area, including space for a Veteran's Services Office and related sitework.

   The project is located at 800 W. Branch Street, Arroyo Grande, CA 93420. The scope of work is described in these Specifications and in Project Plans.

   Refer to Section 01 01 00 Summary of Work for Base Bid, and Section 01 23 00 Alternates for Alternates Bid Items scope of work.

2. **TIME AND PLACE FOR RECEIVING BIDS:** Sealed bids will be received from bidders by the County of San Luis Obispo County Clerk-Recorder's Office at:

   Katcho Achadjian Government Center
   1055 Monterey Street Ground Floor, Suite D-120
   San Luis Obispo, CA 93408
   Thursday, October 23, 2025, before 3:00:00 PM local time.

3. **MANDATORY PRE-BID SITE VISIT:** A **mandatory** pre-bid site meeting will be held on **Thursday, October 2, 2025, at 10 a.m**. for this project.

4. **REQUEST FOR INFORMATION INTERPRETATION AND PRODUCT SUBSTITUTION REQUESTS:** All requests for information/interpretation (RFI), clarification, questions, etc., shall be submitted in writing through the Questions section of the bid on the Public Purchase website. Request for information/ interpretation (RFI), clarification, questions, etc., will not be accepted after **5:00pm on Monday, October 13, 2025,** and shall be submitted through the following website:

   https://www.slocounty.ca.gov/departments/central-services/purchasing-services/services/bid-rfp-opportunities

   All Product Substitution Requests shall be submitted in writing on the Substitution Request Form found in Specification Section 01 60 00 - Product Requirements. Product Substitution Requests and all supporting documents shall be submitted through the Questions section of the bid on the Public purchase website. Product Substitution Requests shall be submitted before 5:00 pm on **Monday, October 13, 2025.** Product substitution requests received after that time will be considered late and may be rejected at the discretion of the County. Refer to specification section 01 60 00 for additional requirements.

5. **TIME OF COMPLETION:** The overall time of completion for the Project three hundred and five **(305) calendar days**. Additional time limitations and limitations on construction are contained in Article 7, of the General Conditions.

6. **LIQUIDATED DAMAGES:** The Contract is subject to liquidated damages that are described in General

Conditions paragraph 7.4 - Work Not Completed in Time and Assessment of Damages.

7. **PROCUREMENT OF CONTRACT DOCUMENTS:** Contract Documents may be obtained from the following website:

   https://www.slocounty.ca.gov/departments/central-services/purchasing-services/services/bid-rfp-opportunities

8. **EXAMINATION OF PROJECT LOCATION & CONTRACT DOCUMENTS:** Bidder shall, prior to submitting a bid, carefully examine the location of the proposed project, and review the Contract Documents, to become fully aware of the Work and of the conditions relating to construction and labor under which the Work will be or is performed, and, so far as possible, the successful bidder must employ such methods and means regarding the Work of any subcontractor or worker, and in carrying out their Work as will not cause any interruption or interference with any other contractor, subcontractor or worker, it being specifically understood and agreed that the County shall be in no way responsible for any loss or damage occurring as a result thereof.

   The limit of the Work area is designated on the drawings and the Contractor shall confine their operations to this area and along the adjacent public areas under the control of and with express permission of the County of San Luis Obispo.

   Bidders must satisfy themselves by personal examination of the location of the proposed work and by such other means as they prefer as to the actual conditions and requirements of the work, and shall not at any time after submission of the bid dispute, complain, or assert that there was any misunderstanding in regard to the nature or amount of work to be done.

9. **INTERPRETATION OF CONTRACT DOCUMENTS:** If any Bidder is in doubt as to the true meaning of any part of the Project Plans, Specifications, or other Contract Documents, or finds discrepancies in, or omissions from the Plans or Specifications, the Bidder must submit its question(s) in writing through the County's Bidding Platform before **5:00 p.m. Monday, October 13, 2025**. If a Bidder fails to question any ambiguities, discrepancies, or omissions, the Bidder shall be deemed to have waived any right to seek additional time or compensation as a result of any such ambiguities, discrepancies, or omissions.

   All questions will receive a response within approximately five (5) business days. Questions and responses will be posted (anonymously) on the Purchasing website. The County reserves the right to determine the appropriateness of comments / questions that will be posted on the website. The County will not be responsible for any other explanation or interpretation of the Contract Documents.

10. **BIDDER'S REPRESENTATION:** No person, firm, or corporation shall be allowed to make or file or be interested in more than one bid for the same Work, unless alternate bids are called for. A person, firm, or corporation submitting a sub-proposal to a bidder, or who has quoted prices on materials to a bidder, is not thereby disqualified from submitting a sub-proposal or quoting prices to other bidders.

11. **CONTENT AND VALIDITY OF BIDS:**

    a. **Validity:** All bids shall be valid for a period of ninety (90) days from the bid opening date.

    b. **Alternate Proposals:** Bids shall not contain any recapitulations of the Work to be done. Alternate proposals will not be considered unless specifically called for.

    c. **Sales Taxes:** Bids shall include any and all Federal, State and Local taxes of whatever nature in connection with material to be furnished to the County. Absolutely no extras shall be allowed after bids are submitted for such by the County.

d. **Payment of General Prevailing Rate of Wages:** Pursuant to the provisions of Section 1773 of the California Labor Code, the County of San Luis Obispo has obtained from the Director of the California Department of Industrial Relations the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work for the locality in which the work is to be performed for each needed craft, classification, or type of workman. Copies of said prevailing rate of per diem wages are on file in IFC-3 and available at the California Department of Industrial Relations' web site address at: https://www.dir.ca.gov/OPRL/DPreWageDetermination.htm.

e. **Payment of Minimum Wage:** Labor on this project shall be paid no less than the greater of the minimum wage rates established by the U.S. Secretary of Labor or by the State of California's Director of the Department of Industrial Relations.

12. **BIDDING PROCEDURES:** In order to receive consideration, all bids shall be made in accordance with the following instructions:

a. **Bid Form:** Bids shall be made upon the form provided therefor, properly executed and with all items filled out; numbers shall be stated both in writing and in figures, the signature of all persons signing shall be in longhand.

b. **Addenda:** Any Addenda issued before the time in which to submit bids expires shall form a part of the Contract Documents and shall be covered in the bid. Each bidder shall confirm receipt of any and all addenda in the space provided in the Bid Form.

c. **Certification of Bids (Bidders Bond):** Each bid must be accompanied by cash, a certified or cashier's check or a Bidder's Bond secured from a company **ADMITTED** to transact surety business in the State of California in the sum of not less than ten percent (10%) of the total amount of the Bid and said checks or bond shall be made payable to the order of the County of San Luis Obispo as liquidated damages in the event the successful bidder fails to file satisfactory bonds as otherwise required by the Contract Documents, or fails to or refuses to enter into a Contract within the specified time.

d. **Bidder and Subcontractor Registration:** Pursuant to Section 1771.1 of the Labor Code, no contractor or subcontractor shall be qualified to bid on, be listed in a bid proposal (submitted on or after March 1, 2015), or engage in the performance of any contract for public work unless currently registered with the Department of Industrial Relations to perform public work pursuant to Section 1725.5 of the Labor Code. No contractor or subcontractor may be awarded a contract for public work on a public works project (awarded on or after April 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5.

e. **Subcontractor List:** All bidders must submit with their bids a list of all proposed subcontractors in compliance with Sections 4100, et seq, of the State Public Contract Code. Forms for this designation are furnished on the Bid Form.

f. **Non-Collusion Affidavit:** All bidders shall submit with their bids a fully executed Non-Collusion Affidavit in compliance with Section 7106 of the State of California Public Contract Code. A form for this purpose is furnished with the Bid Form.

g. **Contractor's License:** Each bidder must possess a Class B California Contractor's License as required under provisions of the California Business and Professions Code (Public Contract Code Section 3300).

13. **WITHDRAWAL OF BIDS:**

a. **Withdrawal of Bids prior to Bid Opening:** Any bidder may withdraw their bid, either personally or by a written request, at any time prior to the scheduled time for opening of bids, as allowed in State Public Contract Code.

b. **Withdrawal of Bids after Bid Opening:** No bidder shall withdraw their bid for a period of **ninety (90)** days after the date set for the opening thereof.

c. **Relief of Bidder Due to Clerical Error:** A Bidder may not be relieved of their bid unless by consent of the awarding authority nor shall any change be made in the bid because of a mistake except as provided in the State Public Contract Code Section 5101, et seq.

14. BONDING REQUIREMENTS: The Bonding Company or Companies/Surety or Sureties on all bonds furnished shall be secured from a surety company **ADMITTED** to transact surety business in the State of California by the California Department of Insurance and must be satisfactory to the County. No Contract shall arise until all bonds and insurance have been approved. All bonds shall be furnished by the bidder to whom the Contract has been awarded at its own cost and expense.

Should any surety or sureties be deemed unsatisfactory at any time by the County, notice will be given to the Contractor to that effect, and the Contractor shall forthwith substitute a new surety or surety satisfactory to the County. No further payment shall be deemed due or will be made under the Contract until the new sureties qualify and are accepted by the County.

All alterations, time extensions, extra and additional Work, and other changes authorized by the Specifications or any part of the Contract may be made without securing the consent of the surety or sureties on the Contract bonds.

a. **Performance Bond:** Pursuant to Section 20129 of the State of California Public Contract Code, the successful bidder shall, within ten (10) business days of award of a Contract simultaneously with the execution and delivery of the Agreement, execute a faithful performance bond in an amount equal to 100% of the Contract Sum, secured from a surety company **ADMITTED** to transact surety business in the State of California by the California Department of Insurance, maintaining an A.M. Best Rating of "A-, FSC VII" or better and must be satisfactory to the County and on the Performance Bond form contained in these Contract Documents.

b. **Payment Bond:** Pursuant to Section 9550 through 9566, inclusive, of the Civil Code of the State of California, the successful bidder shall, within ten (10) business days of award of a Contract exceeding $25,000, simultaneously with the execution and delivery of the Agreement, execute a Payment Bond in the amount equal to 100% of the Contract price, secured from a surety company **ADMITTED** to transact surety business in the State of California by the California Department of Insurance, maintaining an A.M. Best Rating of "A-, FSC VII" or better and must be satisfactory to the County and on the Payment Bond form contained in these Contract Documents.

c. **Maintenance Bond:** Concurrent with the Contractor's submittal of the product's letter of substantial completion, Contractor shall furnish, an approved Surety Company Bond, secured from a surety company ADMITTED to transact business in the State of California by the California Department of Insurance, maintaining an A.M. Best rating of "A-, FSC VII" or better and must be satisfactory to the County and on the Maintenance Bond form contained in these Contract Documents., equal to five percent (5%) of the total amount of the Contract which shall hold good for a period of one year after the date the County's Notice of Completion and Acceptance is filed with the Clerk of the County of San Luis Obispo. Said Bond shall protect the County against the result of faulty material or workmanship during that time.

Recordation of the Notice of Completion and Acceptance shall not be deemed an acceptance of

latent defects nor shall it constitute a waiver of any of the provisions of this Contract.

15. **BID PROTESTS AND OTHER CHALLENGES TO AWARDS OF CONSTRUCTION CONTRACTS:** Bid protests and any other challenges to the award of this construction contract must comply with the requirements described in the "Rules Governing Bid Protests and Other Challenges to Awards of Construction Contracts" ("Rules"), refer to Section 00 75 00. In addition to the requirements described in the Rules, any bid protest must be submitted in writing to the Department of Public Works, Room 206, County Government Center, 976 Osos Street, San Luis Obispo, CA 93408; Attention: Design Engineer

16. **CONTRACT DOCUMENTS AND FORMS:**

a. **General:** The complete Contract shall consist of the following identified documents herein referred to as the Contract Documents: Invitation to Bidders, Instructions to Bidders, Bid Form, Supplements to Bid Form, Agreement, Guarantees, Insurance, General Conditions, Specifications, and attached supplemental information, drawings, any Addenda, and any Change Orders, Field Orders, or the County's Directives issued thereto and all are intended to cooperate and be complementary so that any Work called for in one and not mentioned in the other, or vice versa, shall be executed the same as if mentioned in all said documents. The Contract shall include all labor, materials, equipment, transportation, and services necessary for the proper execution of the Work.

b. **Agreements, Bonds, and Insurance:** The Agreement form that the successful bidder, as Contractor, will be required to execute, and the insurance which they will be required to furnish are included in the Contract Documents and should be carefully examined by each bidder. The Agreement shall be executed in two (2) original counterparts.

17. **BASIS OF AWARD:**

The County will award the Contract to the responsible bidder that submits the lowest responsive Bid, which shall be determined as set forth in the Notice to Bidders and as provided in these instructions as the lowest bid price on the base contract without consideration of the prices on the deductive bid items.

In accordance with 23 CFR 635.102, bids in which the prices are mathematically or materially unbalanced may be rejected. Following are the U.S. Comptroller General's definitions of mathematically and materially unbalanced bids:

- A bid is mathematically unbalanced if the bid is structured on the basis of nominal prices for some work and inflated prices for other work; that is, each element of the bid must carry its proportionate share of the total cost of the work plus profits.
- A bid is materially unbalanced if there is reasonable doubt that award to the bidder submitting the mathematically unbalanced bid will result in the lowest ultimate cost to the County.

18. **ADVANCED CLEAN FLEETS**

Vehicles with a GVWR greater than 8,500 lbs. and light-duty package delivery vehicles operated in California may be subject to the California Air Resources Board Advanced Clean Fleets regulations. Such vehicles may therefore be subject to requirements to reduce emissions of air pollutants. For more information, please visit the CARB Advanced Clean Fleets webpage at https://ww2.arb.ca.gov/our-work/programs/advanced-clean-fleets. All fleets hired by the County shall be listed on the CARB Advanced Clean Fleets webpage as a compliant fleet or the fleet owner must provide a signed statement that its fleet is not subject to the High

Priority and Federal Fleets regulations in title 13, CCR, sections 2015 through 2015.6 and the State and Local Government Fleets regulations in title 13, CCR, sections 2013 through 2013.4.

19. IN-USE OFF-ROAD DIESEL-FUELED FLEETS

The California Air Resources Board ("CARB") implemented amendments to the In-Use Off-Road Diesel-Fueled Fleets Regulations ("Regulation") which went into effect on January 1, 2024, and apply broadly to all self-propelled off road diesel vehicles 25 horsepower or greater and other forms of equipment used in California. A copy of the Regulation is available at https://ww2.arb.ca.gov/our-work/programs/use-road-diesel-fueled-fleets-regulation. Bidders are required to comply with all CARB and Regulation requirements, including, without limitation, all applicable sections of the Regulation, as codified in Title 13 of the California Code of Regulations section 2449 et seq. throughout the duration of the Project. The successful bidder shall submit to the County current CARB Certificates for any applicable fleet intended to be used by the bidder and for any applicable fleet intended to be used by all listed subcontractors within five (5) days of the date of award. Failure to provide CARB Certificates may result in the forfeiture of the successful bidder's bond, and the County reserves the right to then award to the next lowest responsive and responsible bidder.

20. Executive Order N-6-22 – Russia Sanctions

On March 4, 2022, Governor Gavin Newsom issued Executive Order N-6-22 (the EO) regarding Economic Sanctions against Russia and Russian entities and individuals. "Economic Sanctions" refers to sanctions imposed by the U.S. government in response to Russia's actions in Ukraine, as well as any sanctions imposed under state law. Should the State or County determine Contractor is a target of Economic Sanctions or is conducting prohibited transactions with sanctioned individuals or entities, that shall be grounds for termination of this agreement. The County shall provide Contractor advance written notice of such termination, allowing Contractor at least 30 calendar days to provide a written response. Termination shall be at the sole discretion of the County.

END OF SECTION

SECTION 00 41 13
BID FORM

TO: **The County of San Luis Obispo**, State of California, as Owner herein called **County**:

1. BID

1.1. **BASE BID**

Pursuant to and in compliance with the Notice to Bidders and Contract Documents relating to the project:

ARROYO GRANDE LIBRARY REMODEL
PROJECT NO. 320196

Including all Addenda, the undersigned bidder, having become thoroughly familiar with the terms and conditions of the Contract Documents and with local conditions affecting the performance and the costs of the Work at the place where the Work is to be done, hereby proposes and agrees to fully perform the Work within the time stated in strict accordance with the Contract Documents (including the furnishing of any and all labor, materials, tools expendable equipment, and utility and transportation services necessary to fully perform the Work and complete it in a workmanlike manner) for:

1. All work per the Contract Documents, shall be provided for the total sum of:

BASE BID: COMPLETE PROJECT

_____ **Dollars ($_____)**

1.2 **DEDUCTIVE BID ITEMS**

Note: A Bidder must bid on each additive or deductive bid item. Refer to specification Section 01 23 00 for additional information.

1. **DEDUCTIVE BID ITEM #1: NEW PATIO AREA**: Remove from scope of work and total base bid all work and cost associated with the new exterior Patio. The new patio extends from gridline 3 to between gridlines 4 & 5, to the east of gridline F. It includes the planter area around the stairs at gridline 5, the retaining wall surrounding the patio, the concrete slab of the patio, the drainage beneath the patio and planter, and the swale on the backside of the retaining wall.

DEDUCT from the Base Bid the total sum of:

_____ **Dollars ($_____)**

2. **DEDUCTIVE BID ITEM #2: SKYLIGHT**: Remove from scope of work and total base bid all work and cost associated with providing a new Skylight in the center of the Library space, including new curb and flashing as required. The existing skylight will remain.

DEDUCT from the Base Bid the total sum of:

_____ **Dollars ($_____)**

3. **DEDUCTIVE BID ITEM #3: ABSTRACT TREES IN CHILDREN'S AREA**: Remove from scope of work and total base bid all work and cost associated with providing custom tree design and installation.

DEDUCT from the Base Bid the total sum of:

_____ **Dollars ($_____)**

4. **DEDUCTIVE BID ITEM #4: HVAC UNIT REPLACEMENT COSTS(5 units)**: Remove from scope of work and total base bid all work and cost associated with removal and replacement of HVAC Units# 3, 4, 5, 6, 7, including associated curb work, roof patch, electrical, controls, and plumbing work.

DEDUCT from the Base Bid the total sum of:

_____ **Dollars ($_____)**

5. **DEDUCTIVE or ADDITIVE BID ITEM #5:** : To remove (E) 5'x5' coffered ceiling grid and replace with new t-bar 2'x4' grid arrangement (flat installation). Lighting and Mechanical layout and fixture types to be updated per this package. Fire Sprinkler revised layout and head count to be finalized during construction by awarded Contractor and relevant Subcontractor.

DEDUCTIVE or ADDITIVE (Circle Deductive or Additive to indicate) from the Base Bid the total sum of:

_____ **Dollars ($_____)**

1.3 **DETERMINATION OF LOWEST RESPONSIBLE BID:**

The lowest responsible bid for basis of contract award shall be the lowest **Base Bid**.

NAME OF BIDDER: _____

SIGNATURE OF BIDDER: _____

PRINTED NAME AND TITLE: _____

DATE: _____

NOTE: Failure to acknowledge Addenda may be grounds for rejection of the bid. Failure to include pricing for unit costs and additive and deductive bid items will be grounds for rejection of the bid.

2. CONDITIONS OF BID AND AWARD

It is understood and agreed that if written notice of the acceptance of this proposal is mailed or delivered personally to the undersigned bidder within **ninety (90) days** after the opening of the proposal, or at any time thereafter before it is withdrawn, the undersigned bidder will execute and deliver the signed Agreement (two originals) to the County in accordance with the proposal as accepted together with the insurance documents specified in the Agreement, and will also furnish and deliver to the County the Performance Bond and Payment Bond as specified, all within ten (10) business days after personal delivery or deposit in the mail, as the case may be, of the Notice of Award and that the Work under the Contract shall be commenced by the undersigned bidder on the date to be stated in the County's Notice to Proceed, and shall be completed in the time specified in the Agreement of said Contract Documents.

The Notice of Award or any request for additional information may be addressed to the undersigned bidder at the business address set forth herein.

Wherever in this proposal an amount is stated in both words and figures, in case of discrepancy between words and figures the words shall prevail; if all or any portion of the proposal is required to be given in unit prices and totals and a discrepancy exists between any such unit prices and totals so given, the unit prices shall prevail.

3. CONTRACTOR'S LICENSE

Section 7028.15(a) of the Business and Profession Code states that it is a misdemeanor for any person to submit a bid to a public agency in order to engage in the business or act in the capacity of a Contractor within this state without having a license therefor, except in any of the following cases:

3.4. The person is specifically exempted from licensing under the Business and Professions Code.

3.5. If the bidder is making a bid as a joint venture, each person submitting the bid shall be subject to the section in regard to their individual license.

3.6. The section does not affect the right or ability of a licensed architect or registered professional engineer to form a joint venture with licensed Contractors to render those services within their respective licenses.

3.7. For those projects where Federal funds are involved, per Section 20103.5 of the State of California Public Contract Code, the Contractor must be properly licensed at the time of award of Contract. Contractors may be subject to penalties for failure to comply with the provisions of Section 7028.15 of the Business and Professions Code and 20103.5 of the Public Contract Code.

The County is required to verify licensure before awarding a bid. The Contractor is requested to provide the information regarding its license. Failure of the Contractor to be properly licensed upon submission of a bid, except as noted above, shall cause the bid to be considered non-responsive and it shall be rejected.

4. FORMS

Bidder shall execute and submit with their proposal, each of the following:

- BID FORM 00 14 13
- DESIGNATION OF SUBCONTRACTORS: BASE BID
- DESIGNATION OF SUBCONTRACTORS: DEDUCTIVE BID ITEM #1
- DESIGNATION OF SUBCONTRACTORS: DEDUCTIVE BID ITEM #2
- DESIGNATION OF SUBCONTRACTORS: DEDUCTIVE BID ITEM #3
- DESIGNATION OF SUBCONTRACTORS: DEDUCTIVE BID ITEM #4
- DESIGNATION OF SUBCONTRACTORS: DEDUCTIVE BID ITEM #5
- BIDDER'S NON-COLLUSION DECLARATION (STATE FORM)
- IRAN CONTRACTING ACT OF 2010 COMPLIANCE AFFIDAVIT
- FLEET COMPLIANCE CERTIFICATION
- DEBARMENT AND SUSPENSION CERTIFICATION
- BIDDER'S BOND

5. ADDENDA: The undersigned acknowledges and confirms the receipt of the following Addenda:

Addenda Number	Date

and agrees that said addenda are covered in the bid proposal and shall form a part of the Contract Documents.

6. BIDDER'S SIGNATURE AND INFORMATION

The bidder's execution of the signature portion of this bid proposal shall also constitute endorsement and execution of those certifications, questionnaires, and assurances which are a part of this proposal.

If bidder or other interested person is a corporation, state legal name of corporation, also names of the president, secretary, treasurer, and manager thereof; if a partnership, state true name of firm, also names of all individual co-partners composing firm; if bidder or other interested person is an individual, state first and last names in full.

If bidder is a corporation, the legal name of the corporation shall be set forth above together with the signature of the officer or officers authorized to sign contract on behalf of the corporation; if bidder is a partnership, the true name of the firm shall be set forth above together with the signature of the partner or partners authorized to sign contracts in behalf of the partnership; and if the bidder is an individual, his or her signature shall be placed above. If signature is by an agent, other than an officer of a corporation or a member of a partnership, a Power of Attorney must be on file with the County prior to opening of bids or submitted with the bid; otherwise, the bid will be disregarded as irregular and unauthorized.

_____

_____

Bidder warrants and represents that he/she is licensed in accordance with an Act providing for the registration of Contractors, License, No., Class _____, License Expiration Date _____. (Note: the successful bidder must possess the license classification specified in the Notice to Bidders upon award of this contract.)

Name of Bidder _____

Signature of Bidder _____

Printed Name and Title _____

Business Address _____

Email Address _____

Telephone Number _____

Date _____

DIR Registration No.* _____

* Pursuant to Labor Code Section 1771.1, no contractor or subcontractor may be listed on the bid proposal for this public works project unless registered with the Department of Industrial Relations pursuant to Labor Code Section 1725.5.

The undersigned, as bidder, declares that he/she is aware of the provisions of Section 3700 of the California Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and will comply with such provisions before commencing the performance of the work of this contract.

END OF SECTION

SECTION 00 43 00

SUPPLEMENTS TO BID FORMS

1. DESIGNATION OF SUBCONTRACTORS FORM – BASE BID

In compliance with the provisions of Sections 4100-4113 of the Public Contract Code of the State of California, and any amendments thereto, the undersigned bidder sets forth the following:

1.1 The name and location of the place of business of each subcontractor who will perform work or labor, or render service to the undersigned Prime Contractor in or about the construction of the work or improvement, or a subcontractor licensed by the State of California who, under subcontract to the Prime Contractor, specially fabricates and installs a portion of the work or improvement according to detailed drawings contained in the plans and specifications, in an amount in excess of one half of one percent of the undersigned Prime Contractor's total bid, or in the case of bids for the construction of streets and highways, including bridges, in excess of one-half of one percent or ten thousand dollars ($10,000), whichever is greater. When there is a failure to list a subcontractor, as required, the law provides that the Contractor agrees to do the work with his or her own forces. In such case, bidder must be authorized to perform said work. Any bid not complying with the provisions hereof may be rejected.

1.2 The portion of the work which will be done by each such subcontractor. Only one subcontractor shall be listed for each such portion. If the subcontractor is not performing all of the work under the bid item number(s) listed for that subcontractor, the bidder shall set forth the portion of the work relating to said bid item number(s) that will be done by the subcontractor.

Description of Portion of Work (if applicable)	Subcontractor	License Class	License No.	DIR Reg. No.**	Address

NOTE: ** Pursuant to Labor Code Section 1771.1, no contractor or subcontractor may be listed on the bid proposal for this County Public Works project unless registered with the Department of Industrial Relations pursuant to Labor Code Section 1725.5

Description of Portion of Work (if applicable)	Subcontractor	License Class	License No.	DIR Reg. No.**	Address

NOTE: ** Pursuant to Labor Code Section 1771.1, no contractor or subcontractor may be listed on the bid proposal for this County Public Works project unless registered with the Department of Industrial Relations pursuant to Labor Code Section 1725.5

Use additional sheets as necessary

By:_____

(Bidder's Signature/Printed Name and Title/Company Name)

RETURN THIS FORM WITH YOUR BID PROPOSAL

2. DESIGNATION OF SUBCONTRACTORS FORM – DEDUCTIVE BID ITEM 1

In compliance with the provisions of Sections 4100-4113 of the Public Contract Code of the State of California, and any amendments thereto, the undersigned bidder sets forth the following:

2.1 The name and location of the place of business of each subcontractor who will perform work or labor, or render service to the undersigned Prime Contractor in or about the construction of the work or improvement, or a subcontractor licensed by the State of California who, under subcontract to the Prime Contractor, specially fabricates and installs a portion of the work or improvement according to detailed drawings contained in the plans and specifications, in an amount in excess of one half of one percent of the undersigned Prime Contractor's total bid, or in the case of bids for the construction of streets and highways, including bridges, in excess of one-half of one percent or ten thousand dollars ($10,000), whichever is greater. When there is a failure to list a subcontractor, as required, the law provides that the Contractor agrees to do the work with his or her own forces. In such case, bidder must be authorized to perform said work. Any bid not complying with the provisions hereof may be rejected.

2.2 The portion of the work which will be done by each such subcontractor. Only one subcontractor shall be listed for each such portion. If the subcontractor is not performing all of the work under the bid item number(s) listed for that subcontractor, the bidder shall set forth the portion of the work relating to said bid item number(s) that will be done by the subcontractor.

Description of Portion of Work (if applicable)	Subcontractor	License Class	License No.	DIR Reg. No.**	Address

NOTE: ** Pursuant to Labor Code Section 1771.1, no contractor or subcontractor may be listed on the bid proposal for this County Public Works project unless registered with the Department of Industrial Relations pursuant to Labor Code Section 1725.5

Description of Portion of Work (if applicable)	Subcontractor	License Class	License No.	DIR Reg. No.**	Address

NOTE: ** Pursuant to Labor Code Section 1771.1, no contractor or subcontractor may be listed on the bid proposal for this County Public Works project unless registered with the Department of Industrial Relations pursuant to Labor Code Section 1725.5

Use additional sheets as necessary

By:_____

(Bidder's Signature/Printed Name and Title/Company Name)

RETURN THIS FORM WITH YOUR BID PROPOSAL

3. DESIGNATION OF SUBCONTRACTORS FORM – DEDUCTIVE BID ITEM 2

In compliance with the provisions of Sections 4100-4113 of the Public Contract Code of the State of California, and any amendments thereto, the undersigned bidder sets forth the following:

3.1 The name and location of the place of business of each subcontractor who will perform work or labor, or render service to the undersigned Prime Contractor in or about the construction of the work or improvement, or a subcontractor licensed by the State of California who, under subcontract to the Prime Contractor, specially fabricates and installs a portion of the work or improvement according to detailed drawings contained in the plans and specifications, in an amount in excess of one half of one percent of the undersigned Prime Contractor's total bid, or in the case of bids for the construction of streets and highways, including bridges, in excess of one-half of one percent or ten thousand dollars ($10,000), whichever is greater. When there is a failure to list a subcontractor, as required, the law provides that the Contractor agrees to do the work with his or her own forces. In such case, bidder must be authorized to perform said work. Any bid not complying with the provisions hereof may be rejected.

3.2 The portion of the work which will be done by each such subcontractor. Only one subcontractor shall be listed for each such portion. If the subcontractor is not performing all of the work under the bid item number(s) listed for that subcontractor, the bidder shall set forth the portion of the work relating to said bid item number(s) that will be done by the subcontractor.

Description of Portion of Work (if applicable)	Subcontractor	License Class	License No.	DIR Reg. No.**	Address

NOTE: ** Pursuant to Labor Code Section 1771.1, no contractor or subcontractor may be listed on the bid proposal for this County Public Works project unless registered with the Department of Industrial Relations pursuant to Labor Code Section 1725.5

Description of Portion of Work (if applicable)	Subcontractor	License Class	License No.	DIR Reg. No.**	Address

NOTE: ** Pursuant to Labor Code Section 1771.1, no contractor or subcontractor may be listed on the bid proposal for this County Public Works project unless registered with the Department of Industrial Relations pursuant to Labor Code Section 1725.5

Use additional sheets as necessary

By:_____

(Bidder's Signature/Printed Name and Title/Company Name)

RETURN THIS FORM WITH YOUR BID PROPOSAL

4. DESIGNATION OF SUBCONTRACTORS FORM – DEDUCTIVE BID ITEM 3

In compliance with the provisions of Sections 4100-4113 of the Public Contract Code of the State of California, and any amendments thereto, the undersigned bidder sets forth the following:

4.1 The name and location of the place of business of each subcontractor who will perform work or labor, or render service to the undersigned Prime Contractor in or about the construction of the work or improvement, or a subcontractor licensed by the State of California who, under subcontract to the Prime Contractor, specially fabricates and installs a portion of the work or improvement according to detailed drawings contained in the plans and specifications, in an amount in excess of one half of one percent of the undersigned Prime Contractor's total bid, or in the case of bids for the construction of streets and highways, including bridges, in excess of one-half of one percent or ten thousand dollars ($10,000), whichever is greater. When there is a failure to list a subcontractor, as required, the law provides that the Contractor agrees to do the work with his or her own forces. In such case, bidder must be authorized to perform said work. Any bid not complying with the provisions hereof may be rejected.

4.2 The portion of the work which will be done by each such subcontractor. Only one subcontractor shall be listed for each such portion. If the subcontractor is not performing all of the work under the bid item number(s) listed for that subcontractor, the bidder shall set forth the portion of the work relating to said bid item number(s) that will be done by the subcontractor.

Description of Portion of Work (if applicable)	Subcontractor	License class	License No.	DIR Reg. No.**	Address

NOTE: ** Pursuant to Labor Code Section 1771.1, no contractor or subcontractor may be listed on the bid proposal for this County Public Works project unless registered with the Department of Industrial Relations pursuant to Labor Code Section 1725.5

Description of Portion of Work (if applicable)	Subcontractor	License class	License No.	DIR Reg. No.**	Address

NOTE: ** Pursuant to Labor Code Section 1771.1, no contractor or subcontractor may be listed on the bid proposal for this County Public Works project unless registered with the Department of Industrial Relations pursuant to Labor Code Section 1725.5

Use additional sheets as necessary

By:_____
(Bidder's Signature/Printed Name and Title/Company Name)

RETURN THIS FORM WITH YOUR BID PROPOSAL

5. DESIGNATION OF SUBCONTRACTORS FORM – DEDUCTIVE BID ITEM 4

In compliance with the provisions of Sections 4100-4113 of the Public Contract Code of the State of California, and any amendments thereto, the undersigned bidder sets forth the following:

5.1 The name and location of the place of business of each subcontractor who will perform work or labor, or render service to the undersigned Prime Contractor in or about the construction of the work or improvement, or a subcontractor licensed by the State of California who, under subcontract to the Prime Contractor, specially fabricates and installs a portion of the work or improvement according to detailed drawings contained in the plans and specifications, in an amount in excess of one half of one percent of the undersigned Prime Contractor's total bid, or in the case of bids for the construction of streets and highways, including bridges, in excess of one-half of one percent or ten thousand dollars ($10,000), whichever is greater. When there is a failure to list a subcontractor, as required, the law provides that the Contractor agrees to do the work with his or her own forces. In such case, bidder must be authorized to perform said work. Any bid not complying with the provisions hereof may be rejected.

5.2 The portion of the work which will be done by each such subcontractor. Only one subcontractor shall be listed for each such portion. If the subcontractor is not performing all of the work under the bid item number(s) listed for that subcontractor, the bidder shall set forth the portion of the work relating to said bid item number(s) that will be done by the subcontractor.

Description of Portion of Work (if applicable)	Subcontractor	License class	License No.	DIR Reg. No.**	Address

NOTE: ** Pursuant to Labor Code Section 1771.1, no contractor or subcontractor may be listed on the bid proposal for this County Public Works project unless registered with the Department of Industrial Relations pursuant to Labor Code Section 1725.5

Description of Portion of Work (if applicable)	Subcontractor	License class	License No.	DIR Reg. No.**	Address

NOTE: ** Pursuant to Labor Code Section 1771.1, no contractor or subcontractor may be listed on the bid proposal for this County Public Works project unless registered with the Department of Industrial Relations pursuant to Labor Code Section 1725.5

Use additional sheets as necessary

By:_____
(Bidder's Signature/Printed Name and Title/Company Name)

RETURN THIS FORM WITH YOUR BID PROPOSAL

6. DESIGNATION OF SUBCONTRACTORS FORM – DEDUCTIVE OR ADDITIVE BID ITEM 5

In compliance with the provisions of Sections 4100-4113 of the Public Contract Code of the State of California, and any amendments thereto, the undersigned bidder sets forth the following:

6.1 The name and location of the place of business of each subcontractor who will perform work or labor, or render service to the undersigned Prime Contractor in or about the construction of the work or improvement, or a subcontractor licensed by the State of California who, under subcontract to the Prime Contractor, specially fabricates and installs a portion of the work or improvement according to detailed drawings contained in the plans and specifications, in an amount in excess of one half of one percent of the undersigned Prime Contractor's total bid, or in the case of bids for the construction of streets and highways, including bridges, in excess of one-half of one percent or ten thousand dollars ($10,000), whichever is greater. When there is a failure to list a subcontractor, as required, the law provides that the Contractor agrees to do the work with his or her own forces. In such case, bidder must be authorized to perform said work. Any bid not complying with the provisions hereof may be rejected.

6.2 The portion of the work which will be done by each such subcontractor. Only one subcontractor shall be listed for each such portion. If the subcontractor is not performing all of the work under the bid item number(s) listed for that subcontractor, the bidder shall set forth the portion of the work relating to said bid item number(s) that will be done by the subcontractor.

Description of Portion of Work (if applicable)	Subcontractor	License class	License No.	DIR Reg. No.**	Address

NOTE: ** Pursuant to Labor Code Section 1771.1, no contractor or subcontractor may be listed on the bid proposal for this County Public Works project unless registered with the Department of Industrial Relations pursuant to Labor Code Section 1725.5

Description of Portion of Work (if applicable)	Subcontractor	License class	License No.	DIR Reg. No.**	Address

NOTE: ** Pursuant to Labor Code Section 1771.1, no contractor or subcontractor may be listed on the bid proposal for this County Public Works project unless registered with the Department of Industrial Relations pursuant to Labor Code Section 1725.5

Use additional sheets as necessary

By:_____
(Bidder's Signature/Printed Name and Title/Company Name)

RETURN THIS FORM WITH YOUR BID PROPOSAL

7. BIDDERS NON-COLLUSION DECLARATION (STATE FORM)

In accordance with Title 23 United States Code Section 112 and Public Contract Code Section 7106, the bidder declares as follows:

I am the _____ [title] of _____ [name of Bidder], the party making the foregoing Bid.

The Bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation. The Bid is genuine and not collusive or sham. The bidder has not directly or indirectly induced or solicited any other Bidder to put in a false or sham Bid. The Bidder has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham Bid, or to refrain from bidding. 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. All statements contained in the Bid are true. 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, to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof, to effectuate a collusive or sham bid, and has not paid, and will not pay, any person or entity for such purpose.

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:

_____ [date], at _____ [city], _____ [state].

Signed: _____

Print Name: _____

If the bidder fails to complete and properly sign this declaration, the Bid will be considered non-responsive and will be rejected.

RETURN THIS FORM WITH YOUR BID PROPOSAL

8. IRAN CONTRACTING ACT CERTIFICATION

(Public Contract Code section 2200 *et seq.*)

As required by California Public Contract Code section 2204, the Contractor certifies subject to penalty for perjury that the option checked below relating to the Contractor's status regarding the Iran Contracting Act of 2010 (Public Contract Code section 2200 et seq.) is true and correct:

☐ The Contractor is not:

(i) identified on the current list of persons and entities engaging in investment activities in Iran prepared by the California Department of General Services in accordance with subdivision (b) of Public Contract Code section 2203; or

(ii) a financial institution that extends, for 45 days or more, credit in the amount of $20,000,000 or more to any other person or entity identified on the current list of persons and entities engaging in investment activities in Iran prepared by the California Department of General Services in accordance with subdivision (b) of Public Contract Code section 2203, if that person or entity uses or will use the credit to provide goods or services in the energy sector in Iran.

☐ The County has exempted the Contractor from the requirements of the Iran Contracting Act of 2010 after making a public finding that, absent the exemption, the County will be unable to obtain the goods and/or services to be provided pursuant to the Contract.

☐ The amount of the Contract payable to the Contractor for the work does not exceed $1,000,000.

Company: _____

Signed: _____

Printed Name: _____

Title: _____

Date: _____

Note: In accordance with Public Contract Code section 2205, false certification of this form shall be reported to the California Attorney General and may result in civil penalties equal to the greater of $250,000 or twice the Contract Price, termination of the Contract and/or ineligibility to bid on contracts for three years.

9. FLEET COMPLIANCE CERTIFICATION

Bidder hereby acknowledges that they have reviewed the California Air Resources Board's policies, rules and regulations and are familiar with the requirements of Title 13, California Code of Regulations, Division 3, Chapter 9, effective on January 1, 2024 (the "Regulation"). Bidder hereby certifies, subject to penalty for perjury, that:

I am aware of the emissions reduction regulations mandated by the California Air Resources Board. I will comply with such regulations and require my subcontractors to comply with such regulations prior to the commencement of the work, maintain compliance throughout the duration of the work, and provide the County with a Certificate of Reported Compliance for each entity utilized during the work.

Name of Bidder: _____

Signature: _____

Name: _____

Title: _____

Date: _____

10. DEBARMENT AND SUSPENSION CERTIFICATION

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:

- Is not currently under suspension, debarment, voluntary exclusion, or determination of ineligibility by any federal agency;
- Has not been suspended, debarred, voluntarily excluded or determined ineligible by any federal agency within the past 3 years;
- Does not have a proposed debarment pending; and
- Has not been indicted, convicted, or had a civil judgment rendered against it by a court of competent jurisdiction in any manner involving fraud or official misconduct within the past 3 years.

If there are any exceptions to this certification, insert the exceptions below. Exceptions will not necessarily result in denial of award but will be considered in determining bidder responsibility. For any exception noted, indicate to whom it applies, the initiating agency, and dates of action.

_____

_____

_____

_____

_____

Company: _____

Signed: _____

Printed Name: _____

Title: _____

Date: _____

Note: Providing false information may result in criminal prosecution or administrative sanctions. The above certification is part of the Proposal.

11. BIDDER'S BOND

KNOW ALL BY THESE PRESENTS:

That we, _____

_____

as Principal, and _____

_____,

as Surety, are held and firmly bound unto the County of San Luis Obispo, State of California (hereinafter called "County") in the penal sum of Ten Percent (10%) of the total aggregate amount of the bid of the Principal above named, submitted by said Principal to the County for the work described below, for the payment of which sum in lawful money of the United States, well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents. In no case shall the liability of the Surety hereunder exceed the sum of _____

_____ ($_____).

THE CONDITION OF THIS OBLIGATION IS SUCH,

That whereas a bid to County for certain construction specifically described as follows, for which bids are to be opened on _____, 20_____, has been submitted by Principal to County for:

ARROYO GRANDE LIBRARY REMODEL PROJECT
PROJECT NO. 320196

NOW, THEREFORE, the penal sum guaranteed by this bond shall be forfeited to the County in the event of any of the following:

(1) The aforesaid Principal withdraws said bid after the time fixed in the Notice to Bidders for the opening of bids; or,

(2) Principal fails, within ten (10) business days after receipt of written notice that the contract has been awarded to Principal, to, enter into a written contract with County, in the prescribed form, in accordance with the bid as accepted, and file with the County the certificates of insurance as stipulated in section 7-1.06 of the General Conditions and the two bonds (in the prescribed forms), one to guarantee faithful performance and the other to guarantee payment for labor and materials.

Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of said contract or to the work to be performed thereunder 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.

In the event suit is brought upon said bond by County and judgment is recovered, the Surety shall pay all costs incurred by County in such suit, including a reasonable attorney's fee to be fixed by the court. Death of the Principal shall not relieve Surety of its obligations hereunder.

IN WITNESS WHEREOF, we have hereunto set our hands and seals on this _____ day of_,___20 _____.

_____ (Seal)

_____ (Seal)

_____ (Seal)

Principal

_____ (Seal)

_____ (Seal)

_____ (Seal)

Surety

_____

_____

Address

NOTE: Signatures of those executing for Surety must be properly acknowledged.

SECTION 00 50 00
AGREEMENT

THIS IS AN AGREEMENT made and entered into this _____ day of _____, 20___, by and between the County of San Luis Obispo, a political subdivision and one of the counties of the State of California, hereinafter referred to as "County", and (complete **one** of the following):

Corporation: _____
(insert Corporation Name)

a corporation organized and existing under the laws of the State of:

_____
(insert Name of State)

Partnership: _____
(insert Name of Partnership)

Individual: _____
(insert Name of Individual)

Doing business as: _____
(insert dba Name)

hereinafter referred to as "Contractor". In consideration of the mutual covenants, conditions, promises, and agreements herein contained, the County and Contractor hereby mutually covenant and agree as follows:

ARTICLE 1 - SCOPE OF WORK:

Said Contractor agrees to furnish all tools, equipment, apparatus, facilities, expendable equipment, utility and transportation services, and labor and materials necessary to perform and complete in a workmanlike manner, and in strict accordance with the Contract Documents, (defined in Article 5 herein) the Work of:

ARROYO GRANDE LIBRARY REMODEL PROJECT
PROJECT NO. 320196

In the County of San Luis Obispo, State of California, as called for in the Contract Documents adopted by the County, which said drawings and specifications are identified by the signature of the parties of this Agreement. It is understood and agreed that said tools, equipment, apparatus, facilities, expendable equipment, utility and transportation services, labor and materials shall be furnished, and said Work performed and completed as required in said Contract Documents, and subject to the approval of the County and the County's duly authorized representatives.

ARTICLE 2 - TIME OF COMPLETION:

The Work shall be commenced within **ten (10)** calendar days from date of the County's "Notice to Proceed", and shall be fully completed no later than **three hundred and five (305)** calendar days for the Base Bid work from and after the Notice to Proceed. Time is of the essence in this Contract.

ARTICLE 3 - CONTRACT PRICE:

The total Contract price is the amount of the Contractor's bid as set forth in the award of the Contract approved by the County. The Contractor will receive and accept and the County will pay the prices specified in the attached Bid Proposal, which is incorporated herein by reference, as full compensation for furnishing all labor, materials, and equipment for doing all the work contemplated and embraced in this Agreement. To the extent permitted by law, the Contractor assumes during the progress of the work and before its acceptance, any and all loss or damage arising out of the nature of the work aforesaid or from the action of the elements, or from any unforeseen difficulties or obstructions which may arise or be encountered in the prosecution of the work until its acceptance by the County; and assumes any and all expenses incurred by or in consequence of the suspension or discontinuance of work, for well and faithfully completing the work, and the whole thereof, in the manner and to the requirements of the Plans, Special Provisions, Standard Specifications, Standard Plans, and the Public Works Director.

ARTICLE 4 – INTENTIONALLY OMITTED.

ARTICLE 5 – INTENTIONALLY OMITTED.

ARTICLE 6 - CONTRACT DOCUMENTS:

6.01 Identification of Contract Documents

The complete Contract between the parties hereto shall consist of the following identified documents herein referred to as the Contract Documents:

Notice to Bidders, Instructions to Bidders,
Bid Form, Supplements to Bid Form,
Agreement, Bond Requirements and Bond Forms,
Insurance, Indemnification Guarantees,
General Conditions, Specifications,
Environmental Documents, Soils Reports
Drawings, Addenda,
Executed Change Orders and Modifications

The Contractor shall provide all labor, materials, equipment, expendable equipment, utility and transportation services, and any other services necessary for the proper execution of any and all Work as required under the Contract Documents.

The Contractor agrees that the County Public Works Director shall decide as to the meaning of the Contract Documents for the work, including without limitation the Project Plans, Specifications, Addendum, General Conditions, and other Documents incorporated therein, where the same may be found to be obscure or in dispute. The County Public Works Director shall have the right to correct any errors or omissions therein when such corrections are necessary to the proper fulfillment of the intention of the Contract Documents including, but not limited to the Specifications, Plans, reports, and Addendum. The action of such corrections is to take effect from the time said County Public Works Director gives notice thereof to the Contractor, and the decision shall be final.

6.02 Order of Precedent

In the event of conflicts or discrepancies among the Contract Documents, interpretations will be based on the following order of precedence:

1. Permits and other governmental approvals;

2. Change Orders and Construction Change Directives, issued after execution of the Agreement;
3. Agreement
4. Special Provisions;
5. Project Plans;
6. General Conditions
7. Revised Standard Specifications that are included in the Contract Documents;
8. Standard Specifications;
9. Revised Standard Plans that are included in the Contract Documents;
10. Standard Plans;
11. Other Bidding Documents.
12. Supplemental Project Information.

In the event of conflicts or discrepancies within the Contract Documents, interpretations will be based on the following order of precedence:

1. Written numbers and notes on a drawing govern over graphics:
2. A detail drawing governs over a general drawing;
3. A detail specification governs over a general specification;
4. A specification in a section governs over a specification referenced by that section.

6.03 Coordination of Drawings and Specifications:

Refer to Specification Section 00 85 00 “Drawings and Specifications” for Coordination of Drawings and Specifications.

6.04 Reserved

ARTICLE 7 - LAW AND VENUE:

This Agreement has been executed and delivered in the State of California and the validity, enforceability and interpretation of any of the clauses of this Agreement shall be determined and governed by the laws of the State of California. The duties and obligations of the parties created hereunder are performable in SAN LUIS OBISPO COUNTY and such COUNTY shall be the venue for any action of proceeding that may be brought or arise out of, in connection with or by reason of this Agreement.

ARTICLE 8 - CONFLICTS OF INTEREST:

No official of the County who is authorized on behalf of the County to negotiate, make, accept, or approve, or to take part in negotiating, making, accepting, or approving any architectural, engineering, inspection, construction, or material supply contract or any subcontract in connection with the construction of the project, shall become directly or indirectly interested personally in this Contract or in any part thereof. No officer, employee, architect, attorney, engineer, or inspector of or for the County who is authorized on behalf of the County to exercise any executive, supervisory or other similar function in connection with the construction of the project shall become directly or indirectly interested personally in this Contract or in any part thereof. Contractor is aware of the requirements of Government Code section 1090 et seq. and the Political Reform Act (Gov. Code sec. 80000 et seq.) and agrees to comply with those laws' requirements.

ARTICLE 9- INSURANCE REQUIREMENTS:

Contractor shall procure and maintain for the duration of the contract, and for 5 years thereafter, insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the Contractor, its agents, representatives, employees, or Subcontractors.

9.01 Minimum Scope and Limit of Insurance

Coverage shall be at least as broad as:

1. Commercial General Liability

Insurance Services Office Form CG 00 01, including products and completed operations, with limits of no less than **$2,000,000** per occurrence for bodily injury, personal injury, and property damage. If a general aggregate limit applies, either the general aggregate limit shall apply separately to this project/location or the general aggregate limit shall be twice the required occurrence limit.

2. Business Automobile Policy

Insurance Services Office Form Number CA 00 01 covering Code 1 (any auto), with limits no less than **$1,000,000** per accident for bodily injury and property damage.

3. Worker's Compensation / Employer's Liability Insurance

Workers' Compensation insurance as required by the State of California, with Statutory Limits, and Employer's Liability Insurance with limits no less than **$1,000,000** per accident for bodily injury or disease.

4. Excess Liability

Contractor shall provide an excess liability or umbrella insurance policy with limits no less than **$10,000,000**. The excess liability or insurance policy shall be provided on a true "following form" or broader coverage basis, with coverage at least as broad as provided on the underlying Commercial General Liability insurance. No insurance policies maintained by the additional insureds, whether primary or excess, and which also apply to a loss covered hereunder, shall be called upon to contribute to a loss until the Contractor's primary and excess liability policies are exhausted.

9.02 Other Insurance Provisions

The insurance policies are to contain, or be endorsed to contain, the following provisions:

1. The County, its officers, officials, employees, and volunteers are to be covered as additional insureds on the CGL with respect to liability arising out of automobiles owned, leased, hired, or borrowed by or on behalf of the Contractor; and with respect to liability arising out of work or operations performed by or on behalf of the Contractor including materials, parts, or equipment furnished in connection with such work or operations and automobiles owned, leased, hired, or borrowed on or behalf of the Contractor. General liability coverage can be provided in the form of an endorsement to the Contractor's insurance (at least as broad as ISO Form CG 20 10, CG11 85 or both CG 20 10 and CG 20 26, CG 20 33, or CG 20 38; and CG 20 37 forms if later revisions used).

2. For any claims related to this project, the Contractor's insurance coverage shall be primary insurance as respects the County, its officers, officials, employees, and volunteers. Any insurance or self-

insurance maintained by the County, its officers, officials, employees, or volunteers shall be excess of the Contractor's insurance and shall not contribute with it.

3. Each insurance policy required by this clause shall be endorsed to state that coverage shall not be canceled except after 30 days prior written notice (10 days for non-payment) has been provided to the County.

9.03 Acceptability of Insurers

Insurance is to be placed with insurers with a current A.M. Best rating of no less than A: VII, unless otherwise acceptable to the County.

9.04 Deductibles and Self-Insurance Retentions

Any deductibles or self-insured retentions must be declared to and approved by the County. The County may require the Contractor to provide proof of ability to pay losses and related investigations, claim administration, and defense expenses within the retention. Any and all deductibles and SIRs shall be the sole responsibility of the Contractor or subcontractor who procured such insurance and shall not apply to the Indemnified Additional Insured parties. The County may deduct any amounts otherwise due Contractor to fund the SIRs/deductible. The policy must also provide that Defense costs, including the Allocated Loss Adjustment expenses, will satisfy the SIRs or deductible.

9.05 Verification of Coverage

Contractor shall furnish the County with original certificates and amendatory endorsements, or copies of the applicable insurance language, effecting coverage required by this clause and a copy of the Declarations and Endorsements Pages of the CGL and any Excess policies listing all policy endorsements. All certificates, endorsements, and copies of the Declarations and Endorsement are to be received and approved by the County before work commences. However, failure to obtain the required documents prior to the work beginning shall not waive the Contractor's obligation to provide them. The County reserves the right to require complete, certified copies of all required insurance policies, including endorsements, required by these specifications, at any time.

Certificates and copies of any required endorsements shall be sent to:

County of San Luis Obispo
Department of Public Works
976 Osos Street, Room 206
San Luis Obispo, CA 93408
Attention: Design Engineer

9.06 Waiver of Subrogation

Contractor hereby agrees to waive rights of subrogation which any insurer of Contractor may acquire from Contractor by virtue of the payment of any loss. Contractor agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation. The Workers' Compensation policy shall be endorsed with a waiver of subrogation in favor of the County for all work performed by the Contractor, its employees, agents, and Subcontractors.

9.07 Special Risks or Circumstances

The County reserves the right to modify these requirements, including limits, based on the nature of the risk, prior experience, insurer, coverage, or other special circumstances.

9.08 Builder’s Risk

The County maintains Builder's Risk insurance for this project. Contractor therefore, is not required to procure nor maintain said insurance.

9.09 Subcontractors

Contractor shall require and verify that all Subcontractors maintain insurance meeting all the requirements stated herein.

ARTICLE 10 – INDEMNIFICATION

10.01 General

To the fullest extent permitted by law, and in accordance with California Civil Code § 2782, Contractor shall indemnify, defend (with counsel reasonably approved by the County), and hold harmless the County, its officials, officers, agents, employees, and volunteers ("Indemnitees") from and against any and all claims, demands, damages, liabilities, loss, costs and expenses (including attorney's fees and costs of litigation), of every nature arising out of the performance or nonperformance of the work described herein, caused in whole or in part by any act or omission of the Contractor, any subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, except where caused by the sole negligence or willful misconduct of the County ("Indemnity Claims").

10.02 Reserved.

10.03 Independent Defense Obligation

The duty of the Contractor to indemnify and hold harmless the Indemnitees includes the separate and independent duty to defend the Indemnitees, which duty arises immediately upon receipt by Contractor of the tender of any Indemnity Claim from an Indemnitee. The Contractor's obligation to defend the Indemnitee(s) shall be at Contractor's sole expense, and not be excused because of the Contractor's inability to evaluate liability or because the Contractor evaluates liability and determines that the Contractor is not liable. This duty to defend shall apply whether or not an Indemnity Claim has merit or is meritless, or which involves claims or allegations that any or all of the Indemnitees were actively, passively, or concurrently negligent, or which otherwise asserts that the Indemnitees are responsible, in whole or in part, for any Indemnity Claim. The Contractor shall respond within 30 days to the tender of any Indemnity Claim for defense and/or indemnity by an Indemnitee, unless the Indemnitee agrees in writing to an extension of this time. The defense provided to the Indemnitees by Contractor shall be by well qualified, adequately insured and experienced legal counsel acceptable to the County. Contractor shall not settle any action, suit, or proceeding in any manner that would impose any obligation or restriction on an Indemnitee or require an Indemnitee to admit liability or wrongdoing without Indemnitee's prior written consent, which shall not be unreasonably withheld.

10.04 Intent of Parties Regarding Scope of Indemnity

It is the intent of the parties that the Contractor and its Subcontractors of all tiers shall provide the Indemnitees with the broadest defense and indemnity permitted by Applicable Law. In the event that any of the defense, indemnity or hold harmless provisions in the Contract Documents are found to be ambiguous, or in conflict with one another, it is the parties' intent that the broadest and most expansive interpretation in favor of providing defense and/or indemnity to the Indemnitees be given effect.

10.05 Waiver of Indemnity Right Against Indemnities

With respect to third party claims against the Contractor, to the fullest extent permitted by law, the Contractor waives any and all rights to any type of express or implied indemnity against the Indemnitees.

10.06 Subcontractor Requirements

In addition to the requirements set forth hereinabove, Contractor shall ensure, by written subcontract agreement, that each of Contractor's Subcontractors of every tier shall protect, defend, indemnify and hold harmless the Indemnitees with respect to Indemnity Claims arising out of, in connection with, or in any way related to each such Subcontractors' Work on the Project in the same manner in which Contractor is required to protect, defend, indemnify and hold the Indemnitees harmless. In the event Contractor fails to obtain such defense and indemnity obligations from others as required herein, Contractor agrees to be fully responsible to the Indemnitees according to the terms of this Article 10.

10.07 No Limitation or Waiver of Rights

Contractor's obligations under this Article 10 are in addition to any other rights or remedies which the Indemnitees may have under the law or under the Contract Documents. Contractor's indemnification and defense obligations set forth in this Article 10 are separate and independent from the insurance provisions set forth in the Contract Documents, and do not limit, in any way, the applicability, scope, or obligations set forth in such insurance provisions.

The purchase of insurance by the Contractor with respect to the obligations required herein shall in no event be construed as fulfillment or discharge of such obligations. In any and all claims against the Indemnitees by any employee of the Contractor, any Subcontractor, any supplier of the Contractor or Subcontractors, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, the obligations under this Article 10 shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the Contractor or any Subcontractor or any supplier of either of them, under workers' or workmen's compensation acts, disability benefit acts or other employee benefit acts. Failure of the County to monitor compliance with these requirements imposes no additional obligations on the County and will in no way act as a waiver of any rights hereunder.

10.08 Withholding to Secure Obligation

In the event an Indemnity Claim arises prior to final payment to Contractor, the County may, in its sole discretion, reserve, retain or apply any monies due Contractor for the purpose of resolving such Indemnity Claims; provided, however, the County may release such funds if the Contractor provides the County with reasonable assurances of protection of the Indemnitees' interests. The County shall, in its sole discretion, determine whether such assurances are reasonable.

10.09 Survival of Indemnity Obligations

Contractor's obligations under this Article 10 are binding on Contractor's and its Subcontractors' successors, heirs and assigns and shall survive the completion of the Work or termination of the Contractor's performance of the Work.

10.10 Responsibility to Other Entities

Contractor is responsible for any liability imposed by law and for injuries to or death of any person, including workers and the public, or damage to property. Indemnify and save harmless any county, city, or district and its officers and employees connected with the work, within the limits of which

county, city, or district the work is being performed, all in the same manner and to the same extent specified for the protection of the County.

ARTICLE 11 – FINAL PAYMENT

11.01 It is mutually agreed between the parties hereto, that no certificate given or payments made under this Contract, except the final payment, shall be evidence of the performance of this contract, either wholly or in part, against any claim of the Contractor. Final payment for the work performed under this contract shall not be made until the lapse of thirty-five (35) calendar days after the notice of completion of said work has been filed for record and no payment shall be construed to be an acceptance of any defective work or improper materials.

11.02 **Guarantee:** Final Payment does not release Contractor of obligations of Warranty for the Work. Besides guarantees required elsewhere, the Contractor shall and does hereby guarantee all workmanship and material for a period of one year from and after both the date of acceptance of the work and the recordation of the notice of completion by the County and shall repair or replace any or all work and material, together with any other portions of the work which may be displaced in so doing, that in the opinion of the County is or becomes defective during the period of said guarantee without expense whatsoever to the County.

11.03 **Acceptance of Final Payment as Release:** The Contractor further agrees that acceptance by the Contractor of the final payment due under this contract, and the adjustment and payment of his/her bill rendered for any work done in accordance with any amendments of this Contract, shall be and shall operate as a release to the County of San Luis Obispo from any and all claims or liabilities on account of work performed under this Contract except claims or liabilities for which written notice of claim or protest has been filed with the County Public Works Director.

The acceptance by the Contractor of final payment shall be and shall operate as a release to the County of all claims and all liability to the Contractor for all things done or furnished in connection with this Work and for every act and neglect of the County and others relating to or arising out of this Work. No payment, however, final or otherwise, shall operate to release the Contractor or its sureties from any obligations under this Contract or the Performance and Payment Bond.

ARTICLE 12 – CONTRACTOR'S REPRESENTATIONS

The Contractor hereby declares that he/she has read the Contract Documents pertaining to the work to be accomplished hereunder, has carefully examined the plans and detail drawings of the work to be performed and fully understands the intent and meaning of the same.

It is further stipulated and agreed that the Contractor shall keep himself/herself fully informed of all laws, ordinances, and regulations which do or may affect the conduct of the work, the materials used therein or persons engaged or employed thereupon and all such orders of bodies and tribunals having any jurisdiction over the same. If it be found that the Special Provisions or Standard Specifications for the work conflict with any such law, ordinance or regulation the Contractor shall immediately report same to the Public Works Director in writing. The Contractor shall at all times observe and comply with and shall cause all his/her agents, employees, and independent contractors hired by the Contractor to observe and comply with all such existing and future laws, ordinances, regulations, or decrees.

ARTICLE 13 – APPRENTICES

Attention is directed to the provisions in Sections 1777.5, 1777.6, and 1777.7 of the Labor Code concerning the employment of apprentices by the Contractor or any subcontractor. The Contractor and any subcontractor shall comply with the requirements of Sections 1777.5, 1777.6, and 1777.7 of the Labor Code in the employment of apprentices.

To insure compliance and complete understanding of the law relating to apprentices, and specifically the required ratio thereunder, each contractor or subcontractor should, where some question exists, contact the Division of Apprenticeship Standards, 455 Golden Gate Avenue, San Francisco, California, or one of its branch offices prior to commencement of work on this contract. Responsibility for compliance with said Labor Code Sections lies with the prime contractor.

ARTICLE 14 – PAYROLL RECORDS

Attention is directed to the provisions in Section 1776 of the Labor Code concerning Contractor and subcontractor payroll records. The Contractor and any subcontractor shall comply with the requirements of Section 1776 of the Labor Code.

ARTICLE 15 – EQUAL EMPLOYMENT OPPORTUNITY

During the performance of this contract, Contractor agrees to comply with all of the Equal Employment Opportunity provisions of Executive Order No. 11246 of September 24, 1965, as amended by Executive Order 11375 of October 13, 1967, and as supplemented in Department of Labor regulations (41 CFR Chapter 60), including the following:

A. The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoffs or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the Department of Public Works setting forth the provisions of this nondiscrimination clause.

B. The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

C. The Contractor will send to each labor union or representative of workers with which he/she has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the Department of Public Works, advising the said labor union or worker's representative of the Contractor's commitments under this Article 14 and shall post copies of the Notice in conspicuous places available to employees and applicants for employment.

D. The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations (41 CFR, Part 60) and relevant orders of the Secretary of Labor.

E. The Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the County of San Luis Obispo

and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

F. In the event of the Contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations or orders, this contract may be cancelled, terminated or suspended in whole or in part and the Contractor may be declared ineligible for further government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation or order of the Secretary of Labor, or as otherwise provided by law.

G. The Contractor will include the provisions of this Article in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the Public Works Director or the Secretary of Labor may direct as a means of enforcing such provisions including sanctions for noncompliance: provided, however, that in the event a contractor becomes involved in, or is threatened with litigation with a subcontractor or vendor as a result of such direction by the Secretary of Labor, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

ARTICLE 16 - SAFETY

All work conducted by the Contractor and/or subcontractors in the execution of this contract shall be in accordance with current CAL OSHA requirements. Full compensation for compliance with the provisions of this Article shall be considered as included in the other items of work and no additional compensation will be allowed therefor.

ARTICLE 17 – BONDS

Contractor agrees that the Payment Bond and Performance Bond attached to this Agreement are for reference purposes only, and shall not be considered a part of this Agreement or any other Contract Document. Contractor further agrees that said bonds are separate obligations of the Contractor and its surety, and that any attorney's fee provision contained in any payment bond or performance bond shall not apply to any legal action between Contractor and County to enforce any provision of the Contract Documents.

ARTICLE 18 – ATTORNEYS FEES

No provisions of the Contract Documents provide either the Contractor or the County the right to be awarded any attorney's fees and/or costs under Civil Code section 1717 in any legal action brought by either party to enforce any provision of the Contract Documents against the other party. The parties agree that any references to attorney's fees in language describing indemnification obligations do not constitute a contractual provision that would provide either the Contractor or the County the right to be awarded any attorney's fees and/or costs under Civil Code section 1717 in any legal action brought by either party to enforce any provision of the Contract Documents against the other party. Any other language in the Contract Documents providing for a recovery of attorney's fees shall be strictly construed as not including the recovery of any attorney's fees incurred by either Contractor or County in any legal action brought by either party to enforce any provision of the Contract Documents against the other party.

The parties agree that the Contract Documents contain no provisions that would allow either the Contractor or the County to be awarded attorney's fees and/or costs under Civil Code section 1717. Nothing in this Article affects any right by Contractor or County to recover attorney's fees or costs by operation of any law other than Civil Code section 1717.

In the event of any conflict between language in this Article and any other language in the Contract Documents, the language in this Article shall prevail.

ARTICLE 19 – FEDERAL AND STATE LAWS & REGULATIONS

The project shall be constructed under the complete jurisdiction of all applicable laws of the United States and State of California governing construction including, but not limited to, the following:

1. The California Health and Safety Code and all applicable administrative code regulations pursuant thereto.

2. All laws governing the employment of labor, qualifications for employment of aliens, payment of employees, convict-made materials, domestic and foreign materials and accident prevention.

3. Title 19 of the California Code of Regulations entitled "Public Safety", Division 1, State Fire Marshal, Chapter 1, "General Fire and Panic Safety Standards".

4. All laws and regulations governing construction on behalf of public entities, including but not limited to the California Public Contract Code.

5. General Industrial Safety Orders: Each and every Contractor shall observe and conform to the provisions of Title 8, California Code of Regulations bearing upon safe and proper use, construction disposal, etc., of materials, machinery, and building appurtenances as therein set forth.

6. Code Rules and Safety Orders: All Work and materials shall be in full accordance with the latest substantive rules and regulations of the State Fire Marshal, the safety orders of the Division of Industrial Safety, Department of Industrial Relations; the California Building Code, the Uniform Building Code, National Electric Code, Uniform Mechanical Code, Uniform Plumbing Code, and other applicable State Laws or Regulations. Nothing in these plans and specifications is to be construed to permit Work not conforming to these codes.
7. Labor Code: In addition to references elsewhere in the Contract Documents, the requirements of the following Labor Code Sections are incorporated into this contract by reference: Section 1771, 1774-1776, 1777.5, 1813, and 1815.

Note: The procedural aspects of the Uniform Codes referred to above may not apply to the Work of this Contract, but the substantive provisions do apply.

All of the above laws and regulations though referred to herein, are as much a part of the Contract as if they were incorporated in their entirety in these General Conditions.

IN WITNESS THEREOF, the parties hereto have executed this Contract, and this Contract shall become effective on the date shown signed by the County of San Luis Obispo.

COUNTY OF SAN LUIS OBISPO

By:_____
Chairperson of the Board of Supervisors

Date:_____

ATTEST:
MATT PONTES
Ex-Officio Clerk of the Board of Supervisors

By:_____
Deputy Clerk

Date:_____

APPROVAL RECOMMENDED
JOHN DIODATI

By:_____
Director of Public Works

Date: 9/25/25

APPROVED AS TO FORM AND LEGAL EFFECT:
JON ANSOLABEHERE
County Counsel

By: Daniel Schoch
Chief Deputy County Counsel

Date: September 25, 2025

CONTRACTOR

_____

By:_____

Date:_____

_____
Printed Name and Title (President/CEO/Vice President)
(If Contractor is a corporation, a partnership, or a joint venture, attach evidence of authority to sign)

By:_____

_____
Printed Name and Title (Secretary/Assistant Secretary/CFO/Assistant Treasurer)

Date:_____

Address for giving notices:

_____

_____

_____

CORPORATE CERTIFICATE

I,_____, certify than I am the Secretary of the Corporation named as Contractor in the foregoing Contract, that, _____ who signed said Contract on behalf of the Contractor, was then _____ of said Corporation, that said Contract was duly signed for and in behalf of said Corporation by authority of its governing body and is within the scope of its corporate powers.

(Corporate Seal)

_____
(Secretary)

END OF SECTION

SECTION 00 60 00
BOND REQUIREMENTS AND FORMS AND GUARANTEES

1. REQUIRED BONDS:

The following bonds are required to perform this Work. The County may require Contractor to obtain additional Performance and Payment Bonds or increases of bonding capacity in the event that there are significant additive Change Orders applied to the Work. Refer to section 13. Supplemental Provisions of the General Conditions.

1.1. **Performance Bond:** Pursuant to Section 20129 of the State Public Contract Code, the successful Bidder shall, within ten (10) business days of award of a Contract simultaneously with the execution and delivery of the Agreement, execute a faithful Performance Bond in an amount equal to one hundred percent (100%) of the Contract price, secured from a surety company ADMITTED in the State of California and satisfactory to the County. Said Bond shall be issued on the Performance Bond form contained in these Contract Documents.

1.2. **Payment Bond:** Pursuant to Section 9550 through 9566, inclusive, of the Civil Code of the State of California, the successful bidder shall, within ten (10) business days of award of a Contract exceeding $25,000, simultaneously with the execution and delivery of the Agreement, execute a Payment Bond in the amount equal to 100% of the Contract price, secured from a surety company ADMITTED in the State of California and satisfactory to the County. Said Bond shall be issued on the Payment Bond form contained in these Contract Documents.

1.3. **Maintenance Bond:** Contractor shall furnish, in addition to the Bonds elsewhere required by the Contract Documents, a Maintenance Bond in the amount equal to five percent (5%) of the final Contract price, secured from a surety company ADMITTED in the State of California and satisfactory to the County. Said bond shall protect the County against the result of faulty material or workmanship and shall remain in effect for a period of one year after the date the County's Notice of Completion and Acceptance is filed with the Clerk of the County of San Luis Obispo.

1.4. **Premiums:** The premiums for all bonds required by the Contract Documents to be provided by Contractor are included in the Contractor's Adjustment Factors and shall be paid by Contractor.

1.5. **Obligee:** All bonds required by the Contract Documents to be provided by Contractor shall name the County as obligee. All bonds purchased by Subcontractors shall name Contractor and County as dual obligees.

1.6. **No Exoneration:** Changes, Field Orders, Modifications, and adjustments to the Maximum Contract Value or Contract Time shall in no way release or exonerate the Contractor or its Surety(ies) from their obligations and notice thereof shall be waived by the Surety(ies). The foregoing provision shall be included in the terms of all bonds required by the Contract Documents to be provided by Contractor.

1.7. **Communications:** Owner and Construction Manager, if used, shall have the right to communicate with Contractor's Surety(ies) with respect to matters that are related to Contractor's performance of its obligations under the Contract Documents. Contractor shall be provided with a copy of all such written communications. Such communications shall not create or be interpreted as creating any contractual relationship between the County or Construction Manager and Surety(ies).

1.8. **No Limitation:** The foregoing requirements for providing Performance, Payment and Maintenance Bonds shall be without limitation to any other obligations Contractor may have under law to provide bonding for the benefit of and to assure payment to Subcontractors performing Work for the Project.

PERFORMANCE BOND

WHEREAS, the County of San Luis Obispo, State of California, has awarded to

_____(hereinafter designated as "Principal"), a Contract for the:

ARROYO GRANDE LIBRARY REMODEL PROJECT
PROJECT NO. 320196

WHEREAS, said Principal is required under the terms of said Contract to furnish a bond for the faithful performance of said Contract.

NOW, THEREFORE, we, the Principal and_____as Surety, are held and firmly bound unto the County of San Luis Obispo, (hereinafter called "County"), in the sum of __ _____Dollars ($_____), 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, and successors, jointly and severally, firmly by these presents.

The condition of this obligation is such that if the above bonded Principal, his or her heirs, executors, administrators, successors, or assigns, shall in all things stand to and abide by, and well and truly keep and perform all the undertakings, terms, covenants, conditions and agreements in the said Contract and any alteration thereof made as therein provided, including but not limited to provisions regarding contract duration and liquidated damages, all within the time and in the manner therein designated and in all respects according to their true intent and meaning, and shall indemnify and save harmless the County, its officers, agents, and employees, as therein stipulated, then this obligation shall become null and void; otherwise it shall be and remain in full force, virtue and effect.

Whenever Contractor/Principal shall be, and is declared by the County to be, in default under the contract, the County, having performed the County's obligations thereunder, the Surety shall promptly remedy the default, or shall promptly:

1. Complete the contract in accordance with its terms and conditions; or
2. Obtain a bid or bids for completing the contract in accordance with its terms and conditions, and upon determination by Surety of the lowest responsive and responsible bidder, arrange for a contract between such bidder and the County, and make available as work progresses sufficient funds to pay the cost of completion less the balance of the contract price, but not exceeding, including other costs and damages for which Surety may be liable hereunder, the amount set forth above the term "balance of the contract price" as used in this paragraph shall mean the total amount payable to Contractor/Principal by the County under the contract and any modifications thereto, less the amount previously properly paid by the County to the Contractor/Principal.

Surety expressly agrees that the County may reject any Contractor or subcontractor that may be proposed by Surety in fulfillment of its obligations in the event of default by the Principal. Surety shall not utilize Contractor/Principal in completing the contract nor shall Surety accept a bid from Contractor/Principal for completion of the Work if the County, when declaring the Contractor/Principal in default, notifies Surety of the County's objection to Contractor's/Principal's further participation in the completion of the Work.

And the said 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 manner affect its obligations on this Bond, and it does hereby waive notice of any such change, extension of time, alteration or additions, to the terms of the Contract or to the Work or specifications. In the event suit is brought upon this bond by the County and judgment is recovered, Surety shall pay all costs incurred by the County in such suit, including a reasonable attorney's fee to be fixed by the Court.

Death of the Principal shall not relieve Surety of its obligations hereunder.

IN WITNESS WHEREOF, this document has been duly executed by Principal and Surety above named on the _____day of_____, 20___.

CONTRACTOR AS PRINCIPAL: _____

Signature

_____

Please Print Name

_____

Title

_____

Full Name of Business, including dba

SURETY:

Note: Signatures of those executing for Surety must be properly acknowledged and notarized.

_____

Signature

_____

Please Print Name

_____ ***(SEAL)***

Title

_____

Type of Business

_____

Full Name of Business, including dba

NOTARY:

State of California, County of_____

On_____before me, the undersigned notary public, personally appeared_____personally known to me (or 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.

WITNESS my hand and official seal.

(NOTARY SEAL)

Signature _____ (Secretary)

(Secretary)

PAYMENT BOND

WHEREAS, the County of San Luis Obispo, State of California, and _____ _____(hereinafter designated as "Principal"), have entered into an Agreement for the furnishing of all materials, labor, services and transportation, necessary, convenient and proper to the project entitled:

ARROYO GRANDE LIBRARY REMODEL PROJECT
PROJECT NO. 320196

which said Agreement, effective upon execution by all parties, and all of the contract Documents attached to or forming a part of said Agreement, are hereby referred to and made a part hereof, and

WHEREAS, pursuant to law, the Principal is required before entering upon the performance of Work, to file a good and sufficient bond with the body by whom the Contract is awarded, to secure claims to which reference is made in Chapter5 of the Civil Code of California.

NOW, THEREFORE, said Principal and the undersigned _____, as corporate Surety, are held and firmly bound unto the County of San Luis Obispo, (hereinafter called "County"), and unto all laborers, material men and other persons referred to in said statutes in the sum of _____Dollars ($_____), lawful money of the United States, for the payment of which sum well and truly made, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents.

The condition of this obligation is such that if the above bonded Principal, his or her subcontractors, or the heirs, executors, administrators, successors, or assigns of any all or either of them, shall fail to pay any of the persons named in Civil Code Section 9100, or amounts due under the Unemployment Insurance Code with respect to Work or labor performed by any such claimant, or any amounts required to be deducted, withheld, and paid over to the Franchise Tax Board from the wages of employees of the Principal and their subcontractors pursuant to Section 18806 of the Revenue and Taxation Code, with respect to such Work and labor, that the surety herein will pay for the same in an amount not exceeding the sum specified in this bond, otherwise the above obligation shall be void. In case suit is brought upon this bond, the said surety will pay a reasonable attorney's fee to be fixed by the court.

This bond shall inure to the benefit of any of the persons named in Civil Code Section 9100 as to give a right of action to such persons 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, virtue, and effect.

And the said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of said Contract or to the Work to be performed thereunder 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.

Death of the Principal shall not relieve Surety of its obligations hereunder.

IN WITNESS WHEREOF, this document has been duly executed by Principal and Surety above named on the _____day of_____, 20___.

CONTRACTOR AS PRINCIPAL:

_____
Signature

_____
Please Print Name

_____
Title

_____
Full Name of Business, including dba

SURETY:

Note: Signatures of those executing for Surety must be properly acknowledged and notarized.

_____
Signature

_____
Please Print Name

_____ ***(SEAL)***
Title

_____
Type of Business

_____
Full Name of Business, including dba

NOTARY:

State of California, County of_____

On_____before me, the undersigned notary public, personally appeared_____personally known to me (or 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.

WITNESS my hand and official seal.

(NOTARY SEAL)

Signature _____ (Secretary)

MAINTENANCE BOND

WHEREAS, the Board of Supervisors of the County of San Luis Obispo, State of California, and _____ _____ (hereinafter designated as "Principal"), have entered into an Agreement for the furnishing of all materials, labor, services and transportation, necessary, convenient and proper to the project entitled:

ARROYO GRANDE LIBRARY REMODEL PROJECT
PROJECT NO. 320196

which said Agreement, effective upon execution by all parties, and all of the contract Documents attached to or forming a part of said Agreement, are hereby referred to and made a part hereof, and

WHEREAS, pursuant to law, the Principal is required after completion of the Work, and before the filing and recordation of a Notice of Completion for the Work, to file a good and sufficient bond with the body by whom the Contract is awarded, to secure claims for Maintenance equal to five percent (5%) of the total amount of the contract which shall hold good for a period of one (1) year from the date the county's Notice of Completion and Acceptance is filed with the County Recorder, to protect the County against the result of faulty material or workmanship during that time.

NOW, THEREFORE, said Principal and the undersigned _____, as corporate Surety, are held and firmly bound unto the County of San Luis Obispo, (hereinafter called "County"), for repair or replacement of any and all of our Work together with any other adjacent Work which may be displaced by so doing, that proves to be defective in its workmanship or material for the period of one (1) year (except when otherwise required in the Contract to be for a longer period) from the date the County's Notice of Completion and Acceptance is filed with the County Recorder, ordinary wear and tear and unusual abuse or neglect excepted. Said date of acceptance shall be as defined in **Article 8.2, C. FINAL COMPLETION AND ACCEPTANCE OF THE WORK of Division 00 70 00 - GENERAL CONDITIONS** of these Contract Documents, in the sum of:

_____Dollars ($_____), lawful money of the United States, for the payment of which sum well and truly made, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents.

The condition of this obligation is such that if the above bonded Principal, his or her subcontractors, or the heirs, executors, administrators, successors, or assigns of any all or either of them, shall fail to execute within a reasonable amount of time, or fail to respond within seven (7) days with a written schedule acceptable to the County for same, repair or replacement of any and all Work, together with any other adjacent Work which may be displaced by so doing, that proves to be defective in its workmanship or material for the period of one (1) year (except when otherwise required in the Contract to be for a longer period) from the date the County's Notice of Completion and Acceptance is filed with the County Recorder, ordinary wear and tear and unusual abuse or neglect excepted with respect to such Work and labor, the Surety herein shall pay for the same, in an amount not exceeding the sum specified in this Bond, otherwise the above obligation shall be void. In case suit is brought upon this bond, the said Surety will pay a reasonable attorney's fee to be fixed by the court.

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, virtue, and effect.

And the said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of said Contract or to the Work to be performed thereunder 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.

Death of the Principal shall not relieve Surety of its obligations hereunder.

IN WITNESS WHEREOF, this document has been duly executed by Principal and Surety above named on the _____ day of _____ 20____.

CONTRACTOR AS PRINCIPAL: _____

Signature

_____

Please Print Name

_____

Title

_____

Full Name of Business, including dba

SURETY:

Note: Signatures of those executing for Surety must be properly acknowledged and notarized.

_____

Signature

_____

Please Print Name

_____ ***(SEAL)***

Title

_____

Type of Business

_____

Full Name of Business, including dba

NOTARY:

State of California, County of_____

On_____before me, the undersigned notary public, personally appeared_____personally known to me (or 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.

WITNESS my hand and official seal.

(NOTARY SEAL)

Signature _____ (Secretary)

2. ALTERNATIVE RETENTION PROCEDURE

With respect to any moneys withheld under the construction contract by the County in order to ensure performance under the contract, California Public Contract Code Section 22300 provides a Contractor the ability have payment of retentions earned made directly to an escrow agent at the expense of the Contractor. If a Contractor desires to use this alternative retention procedures, the Contractor must formally request this option.

1. **ESCROW OF RETENTION:** Alternatively, the Contractor may request that retentions earned be paid by the County directly to an escrow agent under an escrow agreement at the expense of the Contractor pursuant to Public Contract Code Section 22300.

3. GUARANTEES

1. **GUARANTEE FOR TOTAL WORK:** Prior to acceptance of the Work by the County, the Contractor shall submit a guarantee in the form of a written warranty on Contractor's own letterhead as follows, and signed under penalty of perjury:

2. **WARRANTY FOR:**

ARROYO GRANDE LIBRARY REMODEL PROJECT
PROJECT NO. 320196

This Work has been constructed in accordance with the Contract Documents, and the Work as installed will fulfill the requirements of this warranty, and any other warranty therefor, included in the Contract Documents. We agree to repair or replace any and all of our Work together with any other adjacent Work which may be displaced by so doing, that prove to be defective in its workmanship or material for the period of one (1) year (except when otherwise required in this Contract to be for a longer period) from date of project acceptance by the County, ordinary wear and tear and unusual abuse or neglect excepted. Said date of acceptance shall be the date of acceptance and filing of the Notice of Completion by the Public Works Director on behalf of the County of San Luis Obispo.

In the event of our failure to comply with the above-mentioned conditions within seven (7) days after being notified in writing we, collectively or separately, do hereby authorize the County to proceed to have said defects repaired and made good at our expense and we will honor and pay the cost and charges therefor on demand.

Signed: _____ _____
Contractor License Number

3. **ADDITIONAL GUARANTEES:** Additional Guarantees shall be provided as required in the technical sections of the Contract Documents.

END OF SECTION

SECTION 00 61 00
ENGINEER'S CERTIFICATES

COUNTY OF SAN LUIS OBISPO
ARROYO GRANDE LIBRARY REMODEL PROJECT
PROJECT NO. 320196

Unless noted otherwise, Division 00 and Division 01 have been prepared by or under the direction of the following registered professionals(s):

PREPARED BY:

PROJECT MANAGER – Michael Hicks — DATE 9/25/2025

DESIGN SUPERVISING ENGINEER – Ryan Monie — DATE 09/25/2025

REGISTERED PROFESSIONAL ENGINEER RYAN T. MONIE No. 86360 CIVIL STATE OF CALIFORNIA

CONTRACT DOCUMENTS APPROVED AND ADOPTED BY:

DIRECTOR OF PUBLIC WORKS — DATE 9/25/25

All other Divisions of the Contract Documents have been prepared by the professionals listed on Page 2 of Section 00 61 00.

SIGNATURE PAGE

Project Architect:



Civil Engineer:



Structural Engineer:



Mechanical Engineer:



Electrical Engineer:



Landscape Architect: N/A

Fire Protection Engineer:



Fire Alarm Drawings and Specifications Only

SECTION 00 70 00
GENERAL CONDITIONS

1. GENERAL PROVISIONS

1.1 Basic Definitions

Architect: Any person, firm, or corporation hired by the County to represent the County as the Architect for the Work, this includes Landscape Architect.

As-Built Drawings: The set of Drawings marked by the Contractor during the performance of the Work to indicate completely and accurately the actual as-built condition of the Work. The As-Built Drawings shall be sufficient for a capable and qualified drafter to create Record Documents to reflect and indicate the Work actually in place at Final Completion of the Work.

Change Order (CO): A document issued by the County, directing the Contractor to add, delete or change the Work in a manner different than described in the original Contract Documents and in agreement on adjustment in the Contract Sum and/or Contract Time. The change must have an effect on the price and/or time of the contract in order to constitute a Change Order. If the price or time is not affected, then the change is considered as a Field Order rather than a Change Order.

Claims Dispute Resolution Process: The process for resolution of Claims is set forth in Article 11 of these General Conditions.

Construction Change Directive (CCD): A document issued by the County, directing the Contractor to change the Work in a manner different than described in the original Contract Documents, prior to agreement on adjustment in the Contract Sum and/or Contract Time. The County may issue a Construction Change Directive as a mechanism by which the County exercises a unilateral right to order changes in the Work without invalidating the Contract. It is used when a Change Order cannot be obtained due to limited time or disagreement between the parties with regard to associated changes in the Contract Sum or Contract Time.

Contract Documents (CDs): The contract documents consist of all component parts of the contract as specified in the Agreement.

Contract Price: The Contract price shall be the actual bid amount including Bid Alternates as selected for Award of Bid by the County of San Luis Obispo and as subsequently adjusted by Change Orders.

Contractor: The person, firm, partnership, or corporation to whom this Contract is awarded by the County and who is subject to the terms hereof. The Contractor is referred to throughout the Contract Documents as if singular in number and masculine in gender. The term Contractor means the Contractor or its authorized representative.

Correction Notice: Written notice from the County to the Contractor requiring correction or repairs to the Work to bring the Work into conformity with any laws, codes, ordinances, safety orders or practices determined to be deficient at the work site and surrounding areas affected by the Work, or to correct deficiencies in the Work in regard to compliance with the Contract Documents. Correction Notices shall be promptly executed and are not grounds for adjustment to the time or cost of Contract.

County: The County of San Luis Obispo as Project Owner. The County acts under this Contract

either by action of its Board of Supervisors or by action of its Public Works Director or his designee when authorized by the Board of Supervisors, or by action of such other County officer as the Board of Supervisors may authorize.

County Holiday: Any day designated by action of the Board of Supervisors as a County Holiday.

County's Representative: Any person, firm, agent or corporation employed by or hired by the County to act as Project Manager, Construction Manager, Project Administrator and/or Project Coordinator for the Work.

Days: Calendar days, unless otherwise indicated.

Drawings: Graphic representation of intent of Work.

Engineer: Any person, firm, or corporation hired by the County to represent the County as the Engineer for the Work.

Field Order: A document issued by the County, directing the Contractor to change the Work in a manner different than described in the original Contract Documents, but with no effect on the contract price or contract time.

Final Completion: The point at which all of the Work, including "punch list" items, is complete in accordance with the Contract Documents, the County has formally accepted the Work, and the transfer of deliverables, including but not limited to warranties, manuals, Record Documents, as-builts and releases, has occurred. The Architect, Construction Manager and the County upon request of the Contractor shall determine final Completion. The good faith and reasonable determination of Final Completion by the County, Construction Manager and the Architect shall be controlling and final.

Final Payment: Compensation equivalent to the balance owed to the Contractor by the County for completion of the Work of the Contract, less 5% retention.

Governing Body of the County: The Board of Supervisors of the County of San Luis Obispo.

Inspector: Any person, firm, or corporation employed by or hired by the County to perform Resident Inspection or part time inspection during construction of the Work.

Owner: The County of San Luis Obispo is Project Owner.

Project: The entire Work of improvement proposed by the County to be constructed in whole or in part pursuant to this Contract.

Project Plans: Graphic representation of intent of Work.

Record Documents: The Drawings, specification, addenda, change orders, change directives, approved shop drawings and other approved submittals, showing the base work and changes to the Work.

Retention: The amount of money (5%) withheld from payment to the Contractor by the County as a means of security and/or assurance of performance.

Schedule of Values: A document submitted by the Contractor and approved by the County to establish the values allocated to various portions of the Work and used as a basis for reviewing the Contractor's Applications for Payment.

Specifications: The Specifications are that portion of the Contract Documents consisting of the written requirements for materials, equipment, construction systems, standards, criteria and workmanship for the Work and related services.

Subcontractor: A person, firm, partnership, or corporation having a direct Contract with Contractor for the performing of Work or labor or the rendering of service to Contractor for the Work.

Substantial Completion: "Substantial Completion" means the state in the progress of the Work, as determined by the Architect and County, when all of the Work is complete and in accordance with the Contract Documents except only for correction of minor items which do not impair the County's ability to occupy and fully utilize the Work for its intended purposes.

Surety: Any person, firm, partnership, or corporation that executes as Surety for Contractor's Performance Bond and/or the Contractor's Bond and/or the Bidder's Bond.

Unusual Action of the Elements: The term "unusual action of the elements" is limited to extraordinary adverse weather conditions or conditions immediately resulting therefrom that cause a cessation in the progress of the Work that will delay the time of completion of the Contract. Reference paragraph 7.3 c of these General Conditions 00 70 00.

Work: The "Work" is the construction and services required by the Contract Documents, whether completed or partially completed, and includes all other labor, materials, equipment or services provided or to be provided by the Contractor to fulfill the Contractor's obligations under the Contract Documents. The Work may constitute the whole or a part of the Project.

Work Hours: Normal working hours for the project shall be Monday thru Saturday 7:00 am to 6:00 pm local time, less specified holidays and County training days. In the event the Contractor performs work outside of the normal working hours requiring inspection and/or testing services, the Contractor will be responsible for the hourly rate of the inspector, inspection and/or testing services required.

1.2 Execution, Correlation and Intent:

The intent of the Contract Documents is to include 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 as binding as if required by all. Work not covered in the Contract Documents will not be required unless it is consistent therewith and is reasonably inferred therefrom as being necessary to produce the intended results. Words and abbreviations that have well-known technical or trade meanings are used in the Contract Documents in accordance with such recognized meanings.

1.3 Existing Conditions:

Existing conditions are indicated on attached Project Plans as accurately as possible and in some cases are approximate. All Work shall be done as closely to drawings as actual conditions will allow. Contractor shall be responsible for verifying all conditions, sizes, and dimensions of new construction or existing conditions.

1.4 Discovery of Hazardous Waste or Other Unusual Conditions:

A. **Contractor Notification to the County:** The contractor shall promptly, and before the

following conditions are disturbed, notify the County through the County Representative, 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 I, Class II, or Class III disposal site in accordance with provisions of existing law.
2. Subsurface or latent physical conditions at the site differing from those indicated.
3. Unknown physical conditions at the site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in Work of the character provided for in the Contract.

B. **County Investigation:** The County shall promptly investigate the conditions, and if it finds that the conditions do materially so differ, or do involve hazardous waste, and cause a decrease or increase in the Contractor's cost of, or the time required for, performance of any part of the Work shall issue a Change Order under the procedures described in the Contract Documents. Contractor shall be solely and exclusively responsible for the disposal of any Hazardous Materials on or about the Site. The Contractor's obligations hereunder shall include without limitation, the transportation and disposal of any Hazardous Materials in strict conformity with the Laws.

1. **Disputes:** In the event that a dispute arises between the County 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 by the Contract, but shall proceed with all Work to be performed under the Contract.

2. THE COUNTY

2.1 **Ownership and Use of Documents:** All Drawings, Specifications and copies furnished are and shall remain property of the County. They are to be used with respect to this project and are not to be used on any other project. With the exception of one Contract set for each party to the Contract, such documents are to be returned or suitably accounted for to the County on request at completion of the Work. Submission or distribution to meet official regulatory requirements or for other purposes in connection with the Project is not to be construed as publication in derogation of the County's common law copyright of other reserved rights.

2.2 **Interpretation:** If the Contractor observes any errors, discrepancies or omissions in the Contract Documents, he/she shall promptly notify the County requesting clarification. If the Contractor proceeds with Work affected by such errors, discrepancies, or omissions, without having received such clarification, he/she so does at its own risk.

2.3 **Information and Services Required of the County:** Information or services under the County's control shall be furnished with reasonable promptness to avoid delay in the orderly progress of the Work.

2.4 **County's Right to Stop Work:** If the Contractor fails to correct defective Work or persistently fails to carry out the Work in accordance with the Contract Documents the County may order the Contractor to stop the Work, or any portion thereof until the cause for such order has been eliminated. The Contractor shall bear all costs of such Work stoppage unless it is determined by the County that no fault existed in the Contractor's Work. Any Work stoppage for the correction of defective Work or removal and replacement of unacceptable materials and equipment will not

be considered as the basis for any time extension.

2.5 Occupancy of Work by the County

A. **Use of Completed Work:** Whenever, in the opinion of the County, the Work, or any part thereof, is in a condition suitable for use, and the best interest of the County required such use, the County may take possession of, connect to, open for public use, or use the Work or such part thereof.

The use by the County of the Work or part thereof as contemplated in this article shall in no case be construed as constituting acceptance of the Work or any part thereof. Such use shall neither relieve the Contractor of any of their responsibilities under this Contract, nor act as a waiver by the County of any of the terms and conditions hereof. A Notice of Completion will not be filed with the County Clerk-Recorder until all phases of the Work are complete and accepted by the County.

B. **Repairs or Renewals in the Work:** Prior to the date of acceptance of Work by the County, all necessary repairs or renewals in the Work or part thereof so used not due to ordinary wear and tear, but due to defective material or workmanship or to the operation of the Contractor, shall be made at the expense of the Contractor.

2.6 County's Right to Carry Out the Work: If the County determines that the Contractor, without just cause, fails or refuses, for any reason and at any time, to provide sufficient materials, labor, equipment, tools and services, in the opinion of the County to complete the Work in accordance with the approved project schedule or within the time previously approved by the County for extension thereto, then after formal notice to the Contractor, the County shall have right to complete the Work or have the Work completed by such means and in such manner, by Contract or otherwise as permitted by law, as the County may deem necessary and deduct the actual costs, including additional administrative cost, from the Contract by Change Order.

If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents and fails within 48 hours after written notice from the County to commence and continue correction of such default or neglect with diligence and promptness, the County may after written notice and without prejudice to any other remedy the County may have, make good such deficiencies, including compensation for additional services for the Architect, Engineer, Construction Manager, Inspector, Staff, and for testing made necessary by such default, neglect or failure.

3. CONTRACTOR

1. **Examination of Proposed Project Location and Contract Documents:** Contractor agrees that prior to bidding they carefully examined the location of the proposed project, that they reviewed the Contract Documents, and that they became fully aware of the Work to be done. Contractors are invited to attend the mandatory pre-bid walk no other site visit arrangements will be made. Contractor shall immediately report to the County, any error, inconsistency or omission they may or reasonably should discover. If the Contractor performs any Work knowing, or with reasonable diligence should have known that, it involves an error, inconsistency or omission in the Contract Documents without prior notice to the County of the same, the Contractor shall assume full responsibility for such performance and shall bear all attributable costs for correction of the same.

2. **Supervision and Construction Procedures:** Unless personally present on the premises where the Work is to be done, Contractor shall designate and keep a Superintendent on the Work at all times during its progress. The Superintendent shall not be changed except with the consent of the County, acting through the County Public Works Director unless the Superintendent proves to be unsatisfactory to the Contractor and ceases to be in its employ. The Superintendent shall represent the Contractor in their absence and all directions given to them shall be as binding as if given to the Contractor. Important decisions shall be confirmed in writing to the Contractor. The Contractor shall dismiss the superintendent or any of his/her assistants if they are deemed, in the sole reasonable judgment of the County, to be unfit, insubordinate, disorderly, unsatisfactory, incompetent or incapable of performing the functions assigned to them. If the Superintendent proves to be unsatisfactory to the County, they shall be replaced within ten (10) days after written notice from the County to the Contractor. In such event, the County shall have the right to approve of the replacement superintendent or assistant.

   The Contractor shall supervise and direct the Work, using the best skill and attention. They shall be solely responsible for all construction, methods, techniques, sequences and procedures and for coordinating all portions of Work under the Contract.

3. **Discipline and Order:** Contractor shall at all times enforce strict discipline and order among its employees, subcontractors or vendors. Contractor shall not allow smoking, drinking of alcoholic beverages, use of illegal substances or playing of music on County property. Proper attire shall be maintained, which includes the wearing of shirts and shoes at all times and safety gear as required. Clothing shall be void of political slogans or otherwise inappropriate or objectionable decoration, as determined by the County. Discrimination or sexual harassment of any degree will not be tolerated and infractions thereof, as determined by the County, remain grounds for immediate dismissal of the offender(s) from the job site per paragraph 3.04 below.

4. **Unacceptable Employee of Contractor or Subcontractor:** Upon written notice to the Contractor that any employee of the Contractor or any Subcontractor, including but not limited to the Superintendent, Foreman, Leadworker, Worker, or other person, is unacceptable to the County, Contractor shall, if there is good and sufficient reason, immediately terminate the services of any such person on this project. Only competent and skilled workers shall be employed. If, in the opinion of the County, any worker is incompetent, unfaithful, disorderly or otherwise unsatisfactory, such person shall be dismissed from the Work and shall not again be employed on it except with the County's express written consent.

5. **Inspection of the Work of Other Contractors:** It shall be the duty and responsibility of the Contractor and each subcontractor before beginning any of their Work, to examine all construction and Work of other Contractors and subcontractors that may affect their Work and to satisfy themselves that everything is in proper condition to receive their Work. They shall notify the County in writing of any exception. Failure on their part to do so shall constitute acceptance of the construction as suitable in all ways to receive their Work.

6. **Legal Responsibility of Contractor:**

   a. **Assignments:** Contractor shall not assign this Contract or any part thereof or any monies due or to become due thereunder without the prior written consent of the County. Purported assignment without such consent shall be void. No such assignment shall be valid unless it shall contain a provision that the funds to be paid to the assignee under the assignment are subject to a prior lien for services rendered or material supplied for performance of the Work called for under this Contract in favor of all persons, firms, or corporations rendering such services or supplying such materials, and a further provision that said assignment is subordinate to rights of the County under this Contract.

b. **Responsibility for the Work:** Contractor shall take and assume all responsibility for the Work. As between the Contractor and the County, the Contractor shall bear all losses and damages directly or indirectly resulting to him, to the County, or to others on account of the character or performance of the Work.

The Contractor shall be responsible to the County for the acts and omissions of its employees and all its subcontractors and their agents and employees and other persons performing any of the Work under Contract with the Contractor.

7. **Fees, Permits and Licenses:** Contractor shall, at its expense, obtain necessary permits and licenses, give all necessary notices, pay all direct and indirect fees required by law, and comply with all laws, ordinances, rules, and regulations relating to the Work and to the preservation of the public and safety. Fees, including utility company line extension fees, will be paid by the Contractor, unless otherwise noted in the Specifications or Drawings.

Contractor shall coordinate with State Inspector and comply with all required inspections.

8. **Labor and Wages**

General Prevailing Wage determined by the Director of Industrial Relations pursuant to California Labor Code, Part 7, Chapter 1, Article 2, Section 1770, 1773, 1773.1, and 1773.2 shall be paid all workers employed on public work projects.

a. **Restriction of Employees:** No person under the age of 16 years, or currently serving sentence in a penal or correctional institution, or an inmate of an institution for mental defective, or whose age or physical condition is such as to make their employment dangerous to their health or safety or the health or safety of others shall be employed to perform any Work under this Contract, except that physically handicapped persons otherwise employable may be employed under this Contract where such persons may be safely assigned to Work which they can ably perform. Any person or firm who may be in the employ of Contractor and whom the County may deem incompetent or unfit shall be dismissed from the Work and shall not again be employed on it except by the express written consent of the County.

b. **Legal Day's Work and Standard Workweek:** Eight hours of labor shall constitute a legal day's work upon all Work done under this Contract, and forty hours per week shall constitute a standard work week.

c. **Classification of Labor:** Claims and disputes pertaining to classification of labor employed on the Work under this Contract shall be decided by the County, whose decision shall be final and binding on parties hereto.

d. **Penalties:** Contractor shall comply with Articles 2 and 3 of Chapter 1, Part 7, Division 2 of the California Labor Code regulating wages and working hours on public works. In accordance with Articles 2 and 3, Contractor shall forfeit to the County as a penalty the amount of funds as prescribed by the Labor Code and governing agency seeking sanctions against the Contractor:

1. For each calendar day, or portion thereof, for each worker paid less than the stipulated prevailing rates for any public work done under this Contract by them or by any subcontractor under them.

2. For each worker employed in the execution of this Contract by Contractor or by any subcontractor for each calendar day during which such worker is required or permitted to work more than eight hours in any one calendar day and forty hours in any one calendar week in violation of the provisions of said Article 3.

e. **Prevailing Rate of Locality:** Attention is directed to the provisions in Section 7-1.01A(2), "Prevailing Wage," of the Standard Specifications and these Special Provisions. Pursuant to the provisions of Section 1773 of the California Labor Code, the County of San Luis Obispo has obtained from the Director of the California Department of Industrial Relations the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work for the locality in which the work is to be performed for each needed craft, classification, or type of workman. Copies of said prevailing rate of per diem wages are on file in the Office of the County Clerk-Recorder and available at the California Department of Industrial Relations' web site at: www.dir.ca.gov/DLSR/PWD.

The wage rates determined by the Director of Industrial Relations refer to expiration dates. Prevailing wage determinations with a single asterisk after the expiration date are in effect on the date of advertisement for bids and are good for the life of the contract. Prevailing wage determinations with double asterisks after the expiration date indicate that the wage rate to be paid for work performed after this date has been determined. If work is to extend past this date, the new rate shall be paid and incorporated in the contract. The Contractor shall contact the Department of Industrial Relations as indicated in the wage rate determinations to obtain predetermined wage changes. Pursuant to Section 1773.2 of the Labor Code, a copy of said general prevailing rates shall be posted by the Contractor in a prominent place at the site of the work.

Additionally, the Director of Industrial Relations has reserved the right to issue corrected wage determinations for certain crafts contained in the prevailing wage determinations applicable to this contract. These corrected prevailing wage rates shall apply to this contract in the same manner as if they had been published in the prevailing wage determinations applicable to this contract. These revisions to the general prevailing wage rates are on file at the Office of the County Clerk-Recorder and available at the California Department of Industrial Relations' web site at: www.dir.ca.gov/DLSR/PWD.

Additionally, changes in general prevailing wage determinations which conform to Labor Code Section 1773.6 and Title 8 California Code of Regulations Section 16204 shall apply to the contract when issued by the Director of Industrial Relations at least ten (10) calendar days prior to the date of the Notice to Bidders for the project. Changes, if any, to the general IFC-53 prevailing wage rate will be on file at the Office of the County Clerk-Recorder and available at the California Department of Industrial Relations' web site at: www.dir.ca.gov/DLSR/PWD

f. **Payment of Minimum Rates:** It shall be mandatory upon Contractor and upon any subcontractor under them to pay not less than the specified prevailing rates of wages to all workers employed by them in the execution of this Contract.

g. **Classification Not Covered by Prevailing Rate:** Any laborer or mechanic employed to perform Work on the project under this Contract, which Work is not covered by any of the stipulated classifications, shall be paid not less than the minimum rate of wages specified for the classification which most nearly corresponds to the Work to be performed by them, and such minimum wage rate shall be retroactive to the time of initial employment of such person in such classification. In the event of any dispute on that question, the question and the

information, shall be referred for determination to the Board of Supervisors or to any person designated by the Board of Supervisors whose decision on the question shall be conclusive on the parties to this Contract with the same effect as if the Work performed by such laborer or mechanic has been classified and the minimum rate specified herein.

h. **Claims for Additional Compensation:** The specified wage rates are minimum only, and the County will not consider any claims for additional compensation made by Contractor because of payment by Contractor of any wage rate in excess of the applicable rate contained in the Contract Documents. All disputes in regard to the payment of wages in excess of those specified in the Contract Documents, shall be adjusted by Contractor.

i. **Underpayment of Wages:** Contractor agrees that in case of underpayment of wages to any worker on the project under this Contract by Contractor or any subcontractor, the County may withhold from Contractor out of payments due, an amount sufficient to pay such worker the difference between the wages required to be paid under this Contract and the wages actually paid such worker for the total number of hours worked, and the County may disburse such amount so withheld by it for and on account of Contractor to the employee to whom such amount is due. Contractor further agrees that any amount withheld pursuant to this paragraph shall be in addition to the percentages or amounts that may be retained by the County pursuant to law or other provisions of this Contract.

j. **Wage Rate for Craft Not Listed:** In case the County orders the Contractor to perform extra or additional Work which may make it necessary for Contractor or any subcontractor under this Contract to employ in the performance of such Work any craft, classification or type of worker for which no prevailing wage rate is herein specified, the County will include in the Change Order for such extra or additional Work the prevailing wage rate for such craft, classification or type, and, insofar as such extra or additional Work is concerned, there shall be paid each worker engaged in the Work in such craft, classification or type not less than the prevailing wage rate so included.

k. **Employees on Payrolls:** Contractor shall not carry on its payrolls any person not employed by them, nor shall they carry on their payrolls employees of a subcontractor. Subcontractor's employees must be carried only on the payrolls of the employing subcontractor.

l. **Work After Regular Working Hours:** Any Work necessary to be performed after regular working hours or on Sundays or other legal holidays shall be performed without additional expense to the County, unless the County, by Change Order, shall have expressly directed Contractor to perform said Work at said time.

m. **Records of Hours Worked and Wages:** Per Section 1776 and 1812 of the California Labor Code, each Contractor and Subcontractor shall maintain an accurate payroll 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 them in connection with the Work. All contractors and subcontractors must furnish electronic certified payroll records directly to the Labor Commissioner (Division of Labor Standards Enforcement). Additionally, the awarded Contractor shall submit certified payroll records to the County. Certified Payroll Records shall be furnished to the Project Coordinator with each monthly payment request.

n. **Employment of Apprentices:** Attention is directed to the provisions in Section 1777.5 and 1777.6 of the Labor Code concerning the employment of apprentices by the Contractor or

any subcontractor under them.

The Contractor and subcontractor under them, shall comply with the requirements of Sections 1776, 1777.5 and 1777.6 in the employment of apprentices. It is the Contractor's responsibility to submit notification of their award of a public works contract to the State of California, Department of Industrial Relations, Division of Apprenticeship Standards per the requirements set forth in the Labor Code.

Information relative to apprenticeship standards, wage schedules, and other requirements may be obtained from the Department of Industrial Relations, Division of Apprenticeship Standards, San Francisco, California or from its branch offices.

o. **Travel and Subsistence Pay:** Contractor shall include in the bid all required travel and subsistence amounts required to perform the Work. Travel and subsistence payments shall be in accordance with Section 1773.8 of the Labor Code.

p. **Contractor Registration:** This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. Pursuant to Section 1771.1 of the Labor Code, no contractor or subcontractor shall be qualified to bid on, be listed in a bid proposal (submitted on or after March 1, 2015), or engage in the performance of any contract for public work unless currently registered with the Department of Industrial Relations to perform public work pursuant to Section 1725.5 of the Labor Code. No contractor or subcontractor may be awarded a contract for public work on a public works project (awarded on or after April 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5.

BIDDERS AND THEIR SUBCONTRACTORS (Listed on the Designation of Subcontractors List) must provide an extract (pdf) at time of bid showing active registration from the Public Works Contractor Registration online registration at https://services.dir.ca.gov/gsp.

All contractors and subcontractors must furnish electronic certified payroll records directly to the Labor Commissioner (Division of Labor Standards Enforcement). Additionally, the awarded Contractor shall submit certified payroll records to the County. In addition, awarded Contractor must post job site notices prescribed by regulations.

10. **Labor Disputes:** Whenever the Contractor has knowledge that any actual or potential labor dispute is delaying or threatens to delay the timely performance of the Work of the Contract, the Contractor shall immediately give notice thereof to the County. The Contractor shall then confirm the notice in writing within 24 hours of giving thereof, and shall include all relevant information with respect thereto. No claims will be accepted or costs incurred as a result of jurisdictional or labor practice disputes.

11. **Contractor's Use of Site:** Contractor shall confine all apparatus, material, and equipment required in the performance of this Contract to the limits indicated by law, ordinances, permits, or directions of the County, and shall not unreasonably encumber the premises therewith. Material and equipment shall be brought and used upon the premises in such manner as to leave driveways and parking areas for regular use of the public and employees of the County.

12. **Protection of the Public and Adjacent Public Property:** All laws and ordinances for the protection of the public shall be complied with. The Contractor shall be responsible for any damage of any kind to adjacent property. The County may reject any means, methods,

techniques, sequences or procedures proposed by the Contractor which might constitute or create a hazard to the Work or to persons or property, or which will not provide Work in accordance with the Contract Documents. However, neither the acceptance nor the failure to reject any means, techniques, sequences and procedures by the County shall relieve the Contractor of their responsibilities to safely and properly complete the Work.

13. **Use of Streets and Sidewalks:**

    a. **Obstruction or Interference with Travel:** Contractor shall not unnecessarily, in the judgment of the County, obstruct or otherwise interfere with travel over any public streets, way or sidewalk, nor shall Contractor store, stockpile or place thereon any equipment, materials or supplies without first obtaining the authorization of the County, and then only within such limits as the County may designate.

    b. **Vacate for Public Use:** Those parts of public streets, ways and sidewalks that are occupied by Contractor shall be immediately vacated by Contractor and returned to public use when Contractor's use thereof is no longer necessary for the prosecution of the Work.

14. **Safety Precaution and Programs:** The Contractor expressly undertakes, both directly and through its subcontractors, to take every precaution at all times for the protection of persons, including employees, and property. The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work.

15. **Emergency Safety Action:** In an emergency affecting the safety of life or property, including adjoining property, Contractor, without special instructions or authorization from the County, is authorized to act at Contractor's discretion to prevent such threatened loss or injury. Contractor shall also so act if instructed to do so by the County.

16. **Cleaning Up:** If a dispute arises between separate Contractors as to their responsibility for cleaning up, or the Contractor fails to maintain the Work in a clean and safe manner in the opinion of the County, the County may clean up and charge the cost thereof to the Contractor. It remains the responsibility of the Contractor to maintain the Work in a clean and safe manner.

17. **As-Built Drawings and Specifications:** The following shall be inserted and dimensioned on said drawings and specifications in RED: exact locations and routing of all pipes and conduits, all changes in construction, materials and installed equipment. Upon Substantial Completion of the Work, said as- built shall be returned to the County's designated Representative for the project along with electronic version of document(s) in PDF format. The County will provide base permitted PDF files to be updated for as-built purposes.

18. **Access to Work:** The County and its agents shall at all times have complete access to the Work wherever it is in preparation and progress. When directed by the County, the Contractor shall provide facilities for such access so that the County and its agents may observe the Work and perform necessary or desired inspections, monitoring, and testing to assure compliance with the Contract Documents.

19. **Patent Fees and Infringement:** All fees or claims for any patented invention, article or arrangement that may be used upon or in any manner connected with the doing of the Work, or any part thereof, shall be included in the price bid for doing the Work herein proposed, and Contractor and its sureties shall protect and hold any and all departments of the County, together with all its officers and employees, harmless against any and all demands made for such fees or claims and against any and all suits and claims brought or made by the holder of any invention, patent, copyright, or trademark, or growing out of any alleged infringement of any inventions,

patent, copyright, or trademark; and before the final payment is made on account of this Contract, Contractor shall furnish acceptable proof to the County of a proper release from all such fees or claims

20. **W-9:** Contractor shall submit a completed Request for Taxpayer Identification Number and Certification form W-9 to the Contract Coordinator, Department of Public Works, County Govt Center, Room 206, San Luis Obispo, CA 93408 (telephone 805-781-5252).

1. SUBCONTRACTORS

1. **Subcontracting:** If Contractor shall subcontract any of the Work under this Contract, Contractor shall be as fully responsible to the County for the acts and omissions of its subcontractor and of the persons either directly or indirectly employed by its subcontractor, as it is for the acts and omissions of persons directly employed by itself. Nothing contained in this Contract shall create any contractual relation between any subcontractor and the County. Contractor shall bind every subcontractor (and every subcontractor of a subcontractor) by the terms of this Contract applicable to their Work unless specifically noted to the contrary in the sub-contract in question approved in writing by the County.

2. **Loss or Damage to Subcontractor:** If, through acts of neglect on the part of Contractor, any other Contractor, subcontractor or worker shall suffer loss or damage on the Work, Contractor agrees to settle with such other Contractor, subcontractor or worker by agreement or arbitration. If such other Contractor, subcontractor or worker shall assert any claim against the County on account of any damage alleged to have been so sustained, the County shall notify Contractor, who shall defend, indemnify and save harmless the County against such claim.

5. ADMINISTRATION OF THE CONTRACT

1. **Architect of Record:** The Architect of Record (AOR) is the person lawfully licensed to practice Architecture or Engineering in the State of California and who has entered into an agreement with the County to serve as AOR respectively for the Work.

   The Architect or Engineer will communicate with the Contractor through the County's Representative. In the case of the termination of the employment of the Architect or Engineer, the County may retain a different Architect or Engineer. The status under the Contract of the new Architect or Engineer so retained shall be the same as that of the former Architect or Engineer. The County shall notify the Contractor whenever the Architect or Engineer is replaced.

   The Architect or Engineer shall at all times have access to the Work wherever it is in preparation and progress. When directed by the County's Representative, the Contractor shall provide facilities for such access at the Contractor's cost so the Architect or Engineer may perform their functions under the Contract Documents. The Architect or Engineer will be the interpreter of the requirements of the Drawings and Specifications. Written interpretations necessary for the proper execution or progress of the Work, in the form of drawings or otherwise, will be issued with reasonable promptness by the Architect or Engineer through the County and in accordance with any schedule agreed upon. The Contractor shall submit dated Requests for Clarification through the County's Representative to the Architect or Engineer for such interpretations. Such interpretations shall be consistent with and reasonably inferable from the Contract Documents. The Contractor shall execute and complete the Work in accordance with such interpretations. The Architect or Engineer shall not be liable to the Contractor for the result of any interpretation

or decisions rendered in good faith in such capacity.

The Architect or Engineer will visit the site at intervals appropriate to the stage of construction to become generally familiar with the progress and quality of Work and to determine in general if the Work is being performed in a manner indicating that the Work, when completed, will be in accordance with the Contract Documents. However, the Architect or Engineer will not be required to make exhaustive or continuous on-site inspections to check quality or quantity of the Work. On the basis of on-site observations as an Architect or Engineer, they will keep the County informed of progress of the Work and will endeavor to guard the County against defects and deficiencies in the Work.

The Architect or Engineer shall assist the County in preparation of Change Orders and shall decide all other questions of design intent in connection with the Work. It shall be the responsibility of the Architect or Engineer to assist in interpretation and render opinions in regard to all claims to the County or the County's Representative involving question of the intent of the drawings and specifications. Such opinions and interpretations, together with the reasons, therefore, shall be furnished in writing by the Architect or Engineer to the County, for issuance to the County's Representative and Contractor, within ten (10) business days after a request is made thereof.

The Architect or Engineer has no authority to issue Change Orders. All Change Orders, Field Orders and Cost Request Bulletins shall be approved and issued by the County to the Contractor through the County's Representative.

Neither the Contractor, the County's Representative nor the County shall be bound by any determination, interpretation or opinion of the Architect or Engineer if it determined that such is not in accord with the true intent of the Contract Documents. The party taking issue with the determination, interpretation, or decision of the Architect or Engineer shall give the other party or parties, as the case may be, written notice of such fact within ten (10) business days after the determination, interpretation, or opinion rendered by the Architect or Engineer.

The Architect or Engineer may recommend suspension of the Work whenever suspension may be necessary to ensure the proper execution of the Work.

The Architect or Engineer will review and approve, or take other appropriate action, on Contractor's Submittals such as Shop Drawings, Product Data and Samples, but only for conformance with the design concept of the Work and with the information given in the Contract Documents. Such action shall be taken within fifteen (15) business days. The Architect or Engineer approval of a specific item shall not indicate approval of an assembly of which item is a component.

The Architect or Engineer along with the County's Representative will conduct inspections to determine the dates of Substantial Completion and Final Completion and will receive and review written warranties and related documents required by the Contract and assembled by the Contractor.

The Architect or Engineer will not have control over or charge of and will not be responsible for construction means, methods, techniques, sequences or procedures, or for safety precaution and programs in connection with the Work, since these are solely the Contractor's responsibility. The Architect or Engineer will not be responsible for the Contractor's failure to carry out the Work in accordance with the Contract Documents. The Architect or Engineer will not have control or charge of and will not be responsible for acts or omissions of the Contractor, Subcontractor, or their agents or employees, or of any other persons performing portions of the Work.

2. **County's Representative:** The County's Representative is the person or entity who has been identified in writing by the County to serve as designated County's Representative. The County's Representative is referred to throughout the Contract Documents as if singular in number and masculine in gender. When the County's Representative is an entity, other than a singular person, the term includes the designated County's Representative acting through their authorized representatives as indicated to the Contractor in writing at the Pre-Construction meeting or whenever change in personnel assignments occur.

The County's Representative will provide the general administration support services for the Work as herein described.

The County's Representative will represent the County during the construction until final payment and shall have the responsibility to monitor the Work of the Contractor. Their activities shall in no way supersede or dilute the Contractor's obligation to perform the Work in conformance with all Contract requirements, but he/she is empowered, by the County, to act on its behalf with respect to the proper execution of the Work and shall give instructions to require such corrective measure as may be necessary, in their opinion, to ensure the proper execution of the Contract or to protect the County's interest. The County's Representative shall have the authority to require prompt execution of Work whenever such action may be necessary, in their opinion, to ensure the proper execution of the Work or to protect the interests of the County. Except as otherwise provided herein, the County's Representative shall determine the amount, quality, acceptability, fitness and progress of the Work covered by the Contract without, however, assuming any of the Architect's or Engineer's statutory or customary obligation.

The County's Representative shall be deemed to be the County's designated representative to the extent set forth below and elsewhere in this Contract. The County's Representative shall have no authority to obligate or otherwise bind the County.

The County's Representative shall review and monitor the Contractor's Work and construction schedule and establish specific measures and actions which the Contractor shall take to maintain the current approved schedule.

The County's Representative shall examine the Contractor's Work to determine if the construction conforms to the requirement of this Contract (provided, however, that such action by the County's Representative shall not supersede or diminish the Contractor's obligation to furnish materials and perform the Work in conformity with all requirements of this Contract).

The County's Representative shall determine any corrective measures which may be necessary to bring the Contractor's performance into conformity with Contract requirements.

The County's Representative shall monitor the Contractor's performance in coordinating the Contractor's Work under this Contract with the Work being performed or to be performed by other separate Contractors.

The County's Representative shall assist the County and the Architect or Engineer in the resolution of questions of Contract interpretation.

The County's Representative shall establish and recommend administrative procedures for coordinating the activities of the Contractor, the Architect or Engineer, himself and the County.

The County's Representative shall monitor the Contractor's submittal schedule.

The County's Representative shall coordinate the activities of the Testing Agencies with the activities of the Contractor.

The County's Representative shall review all requests or recommendations for changes affecting this Contract, review proposals, assist in negotiating and submit recommendations thereon to the County.

The County's Representative shall make recommendations, together with the Architect or Engineer where appropriate, to the County as to the qualifications of Subcontractors or Suppliers wherever submittal of Subcontractors and Suppliers are required to be furnished under this Contract.

The County's Representative shall transmit to the County all written guarantees and warranties which the Contractor is required to furnish under this Contract.

The County's Representative may call meetings which shall be attended by the Contractor, Subcontractors and material Suppliers, as he/she may deem necessary.

The County's Representative shall, at all times, have access to the Work wherever it is in preparation and progress. When directed by the County's Representative, the Contractor shall provide facilities for such access so the County's Representative may perform their functions under the Contract Documents. The County's Representative shall have the authority to reject Work which does not conform to the Contract Documents and to require any Special Inspection and Testing.

The County's Representative shall review all applications by the Contractor for progress payments and final payment and make recommendations to the Architect or Engineer and the County for approval thereof in accordance with the County's procedures.

The County's Representative along with the Architect or Engineer will conduct inspections to determine the dates of Substantial Completion and Final Completion and will receive and review written warranties and related documents required by the Contract and assembled by the Contractor.

In the event any claim is made or any action brought in any way relating to the design or construction of the Project, the County's Representative will render to the County any and all assistance required for resolution.

The County may, at their option, designate the County's Representative as their representative to perform additional functions, including functions for which other authorized representatives may be designated by the provisions of this Contract.
It shall be the duty of the Contractor to comply with all procedures established and implemented by the County's Representative and approved by the County as stated above.

3. Documents Issued After Contract Award

a. **Requests for Information (RFI):** If the Contractor encounters any condition which the Contractor believes, in good faith and with reasonable basis, is the result of an ambiguity, conflict, error or omission in the Contract Documents it shall be affirmative obligation of the Contractor to timely address all Requests for Information and questions in writing to the

County, Architect, and sub-consultants through the County's Representative to request information necessary to address and resolve any such Conditions before proceeding with any portion of the Work affected or which may be affected by such Conditions. If the Contractor fails to timely notify the County in writing of the Conditions encountered and the Contractor proceeds to perform any portion of the Work containing or affected by such Conditions, the Contractor shall bear all costs associated with or required to correct, remove, or otherwise remedy any portion of the Work affected thereby without adjustment of the Contract Time or the Contract Price. In requesting information of the Architect to address and resolve any Conditions the Contractor shall act with promptness in submitting any such written request so as to allow the Architect a reasonable period of time to review, evaluate and respond to any such request, taking into account the then current status of the progress and completion of the Work and the actual or potential impact of any such Conditions upon the completion of the Work within the Contract Time. The County will respond with clarifications within fourteen (14) days. It is incumbent upon the Contractor to submit RFIs in a timely manner. RFIs shall not constitute justification for time extension to the Contract. See also Section 01 26 00 of the General Requirements.

b. **Cost Request Bulletins (CRB):** The County may, from time to time during the course of the Work, issue Cost Request Bulletins describing additional Work that may be desirable to include or delete from the Contract, by subsequent Change Order. The Contractor shall respond to Cost Request Bulletins in a thorough manner and within ten (10) days identifying separately and fully the costs of the proposed additional or deleted Work as described in the Change Order provisions. Failure by the Contractor to respond within ten (10) days**,** or adequately describe the costs fully to Cost Request Bulletins and as a result, delaying the timely performance of the Contract, shall not constitute justification for time extension.

c. **Field Orders (FO):** The County shall retain the right to issue Field Orders to the Contractor describing changes necessary or desirable to the Work that do not involve additional cost or extension of the Contract time. Field Orders shall be promptly executed and are not grounds for adjustment to the time or cost of Contract. Should the Contractor determine that there is cost or time impact to the Work due to the Field Order, they shall immediately notify that fact in writing to the County, describing the anticipated impacts, and request issuance of a Change Order. Each Field Order shall receive a written response from the Contractor, acknowledging receipt, describing the action and time of completion for the Work. A subsequent written notice shall be submitted by the Contractor to the County upon completion of the Work required by the Field Order stating that the Work is complete and ready for inspection.

d. **Change Orders (CO):** The County anticipates changes in the Work. The County, therefore, reserves the right to require the Contractor to process and implement Change Orders in a timely fashion to add to or delete from the Work of the Contract. Provisions for change orders and methods of implementation are described in **00 70 00 GENERAL CONDITIONS paragraph 6. CHANGES IN THE WORK** and are intended to comply with Public Contract Code Section 20142.

e. **Construction Change Directives (CCD):** The County retains the right to direct the Contractor to change the Work in a manner different than described in the original Contract Documents, prior to agreement on adjustment in the Contract Sum and/or Contract Time. The County may issue a Construction Change Directive as a mechanism by which the County exercises a unilateral right to order changes in the Work without invalidating the Contract.

f. **Correction Notices:** The County reserves the right to issue Correction Notices to require

correction or repairs to the Work, or to require the Contractor to bring into conformity with any laws, codes, ordinances, safety orders or practices determined to be deficient at the work site and surrounding areas affected by the Work, or to correct deficiencies in the Work in regard to compliance with the Contract Documents. Correction Notices shall be promptly executed and are not grounds for adjustment to the time or cost of Contract. Each Correction Notice shall receive a written response from the Contractor, acknowledging receipt, describing the action and the time of completion for the Work. A subsequent written notice shall be submitted by the Contractor to the County upon completion of the Work required stating that the Work is complete and ready for inspection.

6. CHANGES IN THE WORK

1. **Generally:** The County anticipates changes in the Work. The County therefore, reserves the right to issue written Change Orders ordering changes in the Contract at any time prior to the acceptance of the project without voiding the Contract, and the Contractor shall comply with such order. The Contractor may request changes in the Work, but shall not act on the changes until approved in writing by the County. Any change made without authority in writing from the County shall be the responsibility of the Contractor, and no increase in compensation will be made for a change involving greater expense to the Contractor and changes involving greater or lesser expense may be rejected by the County with the consequent responsibility of the Contractor to replace at its own expense the changed Work with that originally specified.

   On the basis set forth herein, the Contract price shall be adjusted for any Change Order requiring a different quantity or quality of labor, materials or equipment from the originally required and the partial payments to Contractor, shall be adjusted to reflect the change. Whenever the necessity for change arises, and when so ordered by the County in writing, the Contractor shall take all necessary steps to halt such other Work in the area of the change that might be affected by the ultimate change. The Contractor shall promptly commence and diligently complete any Change to the Work subject to the County's written authorization issued pursuant to the preceding sentence; the Contractor shall not be relieved or excused from its prompt commencement and diligent completion of any Change subject to the County's written authorization by virtue of the absence or inability of the Contractor and the County to agree upon the extent of any adjustment to the Contract Time or the Contract Price on account of such Change. Changed Work shall be performed in accordance with the original Contract requirements except as modified by the Change Order. Except as herein provided, the Contractor shall have no claim for any other compensation due to change in the Work.

2. **Proposed Change Orders:** The County will issue to the Contractor a Cost Request Bulletin for a Proposed Change Order describing the intended change and shall require the Contractor to indicate thereon a proposed amount to be added to or subtracted from the Contract price due to the change supported by a detailed estimate of cost properly itemized and supported by sufficient substantiating data to permit evaluation of the same, and the extent of adjustment of the Contract Time, if any, required by such Change . Upon request by the County, the Contractor shall permit inspection of the original Contract estimate, subcontract agreements, or Purchase Orders relating to the change. Any request for adjustment in time of final completion of the project which is directly attributable to the changed Work, shall also be included by the Contractor on the response to the Cost Request Bulletin. Failure to request adjustment of time on the response to the Cost Request Bulletin shall waive any right to subsequently claim an adjustment of the time for final completion based on the changed Work. Contractor shall submit the response to the Cost Request Bulletin with the estimates and any time extension request thereon to the County within fifteen calendar days after issuance of the Cost Request Bulletin. If not submitted

within the required fifteen (15) calendar days and the Contractor has not obtained the County's permission for a delay in submission, the County may order Contractor in writing to begin the Work immediately, and the Contract price shall be adjusted in accordance with the County's estimate of cost, unless Contractor within fifteen (15) days following completion of the changed Work presents proof that the County's estimate was in error.

3. **Execution of Change Orders:** When the County and Contractor agree on the amount to be added to or deducted from the Contract price and the time to be added to or deducted from the completion date, and if the County determines it desirable to implement the Change Order, the Contract Change Order shall be signed by the County, Contractor and Architect/Engineer if applicable, and the Contractor shall proceed with the changed Work. If agreement is reached to the adjustment in compensation for the performance of changed Work but agreement is not reached as to the time adjustment for such Work, Contractor shall proceed with the Work at the agreed price, reserving the right to further pursue its claim for a time adjustment.

   a. **Labor:** The cost to Contractor for labor, and direct field supervision directly required for the performance of the changed Work, including payments assessments, or benefits required by lawful labor union collective bargaining agreements, compensation insurance payments, contributions made to the State pursuant to the Unemployment Insurance Code, and for taxes paid to the Federal Government pursuant to the Social Security Act of August 14, 1935, as amended.

      No labor cost will be recognized at a rate in excess of the wages prevailing in the locality at the time the Work is performed, nor will the use of a classification that would increase the labor cost be permitted unless Contractor established to the satisfaction of the County the necessity for payment at a higher rate. Labor costs shall exclude costs incurred by the Contractor in preparing estimate(s) of the costs of the Change, in the maintenance of records relating to the costs of the Change, coordination and assembly of materials and information relating to the Change or performance thereof, or the supervision and other overhead and general conditions costs associated with the Change or performance thereof.

   b. **Materials:** The cost to Contractor for the materials directly required for the performance of the changed Work. Such cost of materials may include the costs of procurement, transportation, and delivery if necessarily incurred. If a trade discount by the actual supplier is available to Contractor, it shall be credited to the County. If the materials are obtained from a supply or source owned wholly or in part by Contractor, payment therefore, will not exceed the current wholesale price for such materials.

      If, in the opinion of the County, the cost of materials is excessive, or if Contractor fails to furnish satisfactory evidence of the cost from the actual supplier thereof, then in either case the cost of the materials shall be deemed to be the lowest wholesale price at which similar materials are available in the quantities required at the time they were needed. The County reserves the right to furnish such materials as they deem advisable, and Contractor shall have no claim for costs or profits on materials so furnished.

   c. **Equipment:** The cost to Contractor for the use of equipment directly required in the performance of the changed Work except that no payment will be made for time while equipment is inoperative due to breakdowns or for non-working days. The rental time shall include the time required to move the equipment to the Work from the nearest available source for rental of such equipment and to return it to the source. If such equipment is not

moved by its own power, then loading and transportation costs will be paid. However, neither moving time nor loading and transportation costs will be paid if the equipment is used on the project in any other way than upon the changed Work. Individual pieces of equipment having a replacement value of $ 2,000 or less shall be considered to be tools or small equipment, and no payment therefore will be made. No markup for overhead, profit, or bonds will be allowed for use of equipment supplied by an equipment rental firm. For equipment owned, furnished, or rented by Contractor, no cost therefore shall be recognized in excess of the rental rates established by distributors or equipment rental agencies in the locality where the Work is performed.

The amount to be paid to Contractor for the use of equipment as set forth above shall constitute full compensation to Contractor for the cost of fuel, power, oil, lubrication, supplies, small tools, small equipment, necessary attachments, repairs and maintenance of any kind, depreciation, storage, insurance, labor (except for equipment operators who shall be paid for as provided in 6.3.a above), and any and all costs to Contractor incidental to the use of such equipment.

d. **Work by Subcontractors and Vendors:** For any portion of the changed Work that is to be performed by a subcontractor, Contractor shall furnish to the County a detailed estimate prepared and signed by Subcontractor of the cost to Subcontractor for performing the changed Work. At the option of the County, a lump sum estimate of such cost to Subcontractor may be accepted in lieu of the detailed estimate. The combined costs for Subcontractor's home office and field overhead, profit, taxes, supervision, and bonds shall not exceed fifteen (15%) percent. The foregoing limitation on mark-up shall be enforced as an aggregate total and apply regardless of the number of subcontractors, of any tier, performing any portion of such additive Change in the work. Estimates of the amount to be deleted from Subcontractor's portion of the Work shall be the gross cost of the deducted Work plus at least six percent (6%) for overhead, bonds, insurance, and related savings. For changed Work to be furnished by a Vendor, Contractor shall furnish upon demand of the County, a lump sum estimate of the cost of the items including taxes and cartage to Contractor prepared by the Vendor. No markup for overhead, profit, layout, supervision or bonds will be allowed for changed Work furnished by a Vendor. Markup shall be computed as stated above, and in no case shall compounded mark-up be allowed.

e. **Contractor's Markup for Added Work / Credit for Deleted Work:** Where changed Work is self-performed by the Contractor, Contractor may add to the total cost estimate for such Work no more than fifteen percent (15%) for profit, home office and field overhead, insurance, taxes, supervision, and bonds. Where changed Work is performed by Subcontractor(s), Contractor may add to the total cost estimate for such Work no more than five percent (5%) for profit, home office and field overhead, insurance, taxes, supervision, and bonds. Estimates of the amount to be deducted from the Contract price shall be the gross cost of the deducted Work plus at least six percent (6%) for overhead, bonds, insurance, taxes, and related savings. Markup shall be computed as stated above, and in no case shall compounded mark-up be allowed.

For proposed Change Orders which involve both added and omitted Work, Contractor shall separately estimate the cost of the added Work before markups, and separately estimate the cost of the omitted Work before allowance of a credit. If the difference between the costs results in an increase to the Contract price, the markup for added Work shall be applied to the difference, and if the difference in the costs results in a decrease, then the markup for deleted Work shall be applied to the difference.

f. **Market Values:** Cost for added Work shall be based on market values prevailing at the time of the change, unless Contractor can establish to the satisfaction of the County that it investigated all possible means of obtaining Work at prevailing market values and that the excess cost could not be avoided.

When a Change Order deletes Work from the Contract, the computation of the cost thereof shall be the values that prevailed at the time bids for the Work were opened.

g. **Cost to Acquire Information:** All costs incurred to acquire information relative to a proposed Change Order shall be borne by the Contractor.

4. **Minor Changes in the Work:** The County anticipates minor changes in the Work. The County therefore, retains the right to request the Contractor to make minor changes in the Work by a Field Order. Minor changes generally do not impact the cost of the performance of the Work or detrimentally or significantly impact the Contract time.

5. **Emergency Changes:** Changes in the Work made necessary due to unforeseen site conditions, discovery of errors in plans or specifications requiring immediate clarification in order to avoid a serious work stoppage or changes of a kind where the extent cannot be determined until completed or under any circumstances whatsoever, when deemed necessary by the County, are types of emergency changes which may be authorized by the County in writing to Contractor. Contractor shall commence performance of the emergency change immediately upon receipt of a written Emergency Change Order.

Within fifteen (15) days after receiving the Emergency Change Order, Contractor shall submit a detailed estimate of cost and any proposed extension in Contract time in the same manner as required under paragraph 7.03 of these General Conditions for Adjustment of Contract Time and Allowable Time Extensions. If agreement is reached as to compensation adjustment for the purpose of any emergency change, then compensation will follow as provided in paragraph 6.03 Execution of Change Orders. If agreement is not reached as to compensation, then compensation will be as provided in paragraph 6.7 Failure to Agree to Cost.

6. **Adjustment of Contract Time and Allowable Time Extensions:** For adjustments to contract time, whether granted as a result of changed Work or at the request of the Contractor, see General Conditions paragraph 7 Contract Time.

7. **Failure to Agree to Cost:** Both parties possess the obligation to bargain in good faith to reach agreement concerning adjustments to the Contract Sum and/or Contract Time as a result of changes to the Work. In the event that an agreement fails to occur, the Contractor's recoverable costs and mark-ups shall be limited as follows:

a. **Labor:** The cost to Contractor for labor, and direct field supervision directly required for the performance of the changed Work, including payments assessments, or benefits required by lawful labor union collective bargaining agreements, compensation insurance payments, contributions made to the State pursuant to the Unemployment Insurance Code, and for taxes paid to the Federal Government pursuant to the Social Security Act of August 14, 1935, as amended.

No labor cost will be recognized at a rate in excess of the wages prevailing in the locality at the time the Work is performed, nor will the use of a classification that would increase the

labor cost be permitted unless Contractor established to the satisfaction of the County the necessity for payment at a higher rate. Labor costs shall exclude costs incurred by the Contractor in preparing estimate(s) of the costs of the Change, in the maintenance of records relating to the costs of the Change, coordination and assembly of materials and information relating to the Change or performance thereof, or the supervision and other overhead and general conditions costs associated with the Change or performance thereof.

b. **Materials:** The cost to Contractor for the materials directly required for the performance of the changed Work. Such cost of materials may include the costs of procurement, transportation, and delivery if necessarily incurred. If a trade discount by the actual supplier is available to Contractor, it shall be credited to the County. If the materials are obtained from a supply or source owned wholly or in part by Contractor, payment therefore, will not exceed the current wholesale price for such materials.

   If, in the opinion of the County, the cost of materials is excessive, or if Contractor fails to furnish satisfactory evidence of the cost from the actual supplier thereof, then in either case the cost of the materials shall be deemed to be the lowest wholesale price at which similar materials are available in the quantities required at the time they were needed. The County reserves the right to furnish such materials as they deem advisable, and Contractor shall have no claim for costs or profits on materials so furnished.

c. **Equipment:** The cost to Contractor for the use of equipment directly required in the performance of the changed Work except that no payment will be made for time while equipment is inoperative due to breakdowns or for non-working days. The rental time shall include the time required to move the equipment to the Work from the nearest available source for rental of such equipment and to return it to the source. If such equipment is not moved by its own power, then loading and transportation costs will be paid. However, neither moving time nor loading and transportation costs will be paid if the equipment is used on the project in any other way than upon the changed Work. Individual pieces of equipment having a replacement value of $ 2,000 or less shall be considered to be tools or small equipment, and no payment therefore will be made. No markup for overhead, profit, or bonds will be allowed for use of equipment supplied by an equipment rental firm. For equipment owned, furnished, or rented by Contractor, no cost therefore shall be recognized in excess of the rental rates established by distributors or equipment rental agencies in the locality where the Work is performed.

   The amount to be paid to Contractor for the use of equipment as set forth above shall constitute full compensation to Contractor for the cost of fuel, power, oil, lubrication, supplies, small tools, small equipment, necessary attachments, repairs and maintenance of any kind, depreciation, storage, insurance, labor (except for equipment operators who shall be paid for as provided in
   6.3.A above), and any and all costs to Contractor incidental to the use of such equipment.

d. **Work by Subcontractors and Vendors:** For any portion of the changed Work that is to be performed by a subcontractor, Contractor shall furnish to the County a detailed estimate prepared and signed by Subcontractor of the cost to Subcontractor for performing the changed Work. At the option of the County, a lump sum estimate of such cost to Subcontractor may be accepted in lieu of the detailed estimate. The combined costs for Subcontractor's home office and field overhead, profit, taxes, supervision, and bonds shall not exceed fifteen (15%) percent. The foregoing limitation on mark-up shall be enforced as

an aggregate total and apply regardless of the number of subcontractors, of any tier, performing any portion of such additive Change in the work. Estimates of the amount to be deleted from Subcontractor's portion of the Work shall be the gross cost of the deducted Work plus at least six (6%) percent for overhead, bonds, insurance, and related savings. For changed Work to be furnished by a Vendor, Contractor shall furnish upon demand of the County, a lump sum estimate of the cost of the items including taxes and cartage to Contractor prepared by the Vendor. No markup for overhead, profit, layout, supervision or bonds will be allowed for changed Work furnished by a Vendor. Markup shall be computed as stated above, and in no case shall compounded mark-up be allowed.

e. **Contractor's Markup for Added Work / Credit for Deleted Work:** Where changed Work is self-performed by the Contractor, Contractor may add to the total cost estimate for such Work no more than fifteen percent (15%) for profit, home office and field overhead, insurance, taxes, supervision, and bonds. Where changed Work is performed by Subcontractor(s), Contractor may add to the total cost estimate for such Work no more than five percent (5%) for profit, home office and field overhead, insurance, taxes, supervision, and bonds. Estimates of the amount to be deducted from the Contract price shall be the gross cost of the deducted Work plus at least six percent (6%) for overhead, bonds, insurance, taxes, and related savings. Markup shall be computed as stated above, and in no case shall compounded mark-up be allowed.

   For proposed Change Orders which involve both added and omitted Work, Contractor shall separately estimate the cost of the added Work before markups, and separately estimate the cost of the omitted Work before allowance of a credit. If the difference between the costs results in an increase to the Contract price, the markup for added Work shall be applied to the difference, and if the difference in the costs results in a decrease, then the markup for deleted Work shall be applied to the difference.

f. **Market Values:** Cost for added Work shall be based on market values prevailing at the time of the change, unless Contractor can establish to the satisfaction of the County that it investigated all possible means of obtaining Work at prevailing market values and that the excess cost could not be avoided.

   When a Change Order deletes Work from the Contract, the computation of the cost thereof shall be the values that prevailed at the time bids for the Work were opened.

g. **Cost to Acquire Information:** All costs incurred to acquire information relative to a proposed Change Order shall be borne by the Contractor.

h. For Added Work: Notwithstanding the failure of the County and Contractor to agree as to the cost of the proposed Change Order, Contractor, upon written notice from the County, shall proceed immediately with the changed Work. At the completion of each day's work, Contractor shall furnish to the County a detailed summary of all labor, materials, and equipment employed in the changed Work. The County or its agent will compare their records with Contractor's daily summary and may make any necessary adjustments to the summary. After the County and Contractor agree upon and sign the daily summary, the summary shall become the basis for determining costs for the additional Work. The sum of these costs when added to an appropriate markup will constitute the payment for the changed Work. Subsequent adjustments, however, may be made based on later audits by the County. When changed work is performed at locations away from the job site, Contractor

shall furnish in lieu of the daily summary, a summary submitted at the completion of the Work containing a detailed statement of labor, material, and equipment used in the Work. The latter summary shall be signed by Contractor, who shall certify, thereon, that the information is true.

Contractor shall maintain and furnish on demand of the County itemized statements of cost from all Vendors or Subcontractors who perform changed Work or furnish materials and equipment for such Work. All statements must be signed by the Vendors and Subcontractors.

i. **For Deleted Work:** When a proposed Change Order contains a deletion of any Work and the County and Contractor are unable to agree upon the cost thereof, the County's estimate shall be deducted from the Contract price and may be withheld from any payment due Contractor until Contractor presents proof that the County's estimate was in error. The amount to be deducted shall be the costs to Contractor for labor, materials, and equipment that would have been used on the deleted Work together with an amount of overhead and bonds. The guidelines set forth in Article 6.4 Allowable Costs Upon Change Orders above, shall be used in computing the amounts involved.

j. **Continuing Contract Performance:** Pending final resolution of a Change Order Claim, unless otherwise agreed upon in writing, the Contractor shall diligently proceed with performance of the Contract and the County shall continue to make payments in accordance with the Contract Documents.

7. CONTRACT TIME

1. **Time is of the Essence:** All time limits established herein are of the essence to this Contract and any breach of said limits due to failure to comply is considered “material”.

2. **Time for and Completion of Work:** All Work shall be completed by Contractor in the time specified in Article 2 of the Agreement plus any extensions of time expressly stated in a Change Order. Work not completed within the time specified above, shall be subject to liquidated damages as described in General Conditions paragraph 7.04, Work Not Completed in Time and Assessment of Damages.

3. **Adjustment of Contract Time and Allowable Time Extensions**

a. **Measurement Basis:** Adjustment in Contract Time will be measured on a calendar day basis, except that if the new Contract completion date falls on a Saturday, Sunday or legal holiday, it shall be extended through the next full working day.

b. **Change in Work:** For any change in the Work, Contractor shall be entitled only to such adjustments in time by which completion of the entire Work is delayed due to performance of the changed Work. Contract float time is jointly owned as a resource and shall be consumed on a first-come, first served basis. Float time is not for the exclusive benefit of either Contractor or the County. No extension of time will be granted unless Contractor demonstrates to the satisfaction of the County that he/she has made every reasonable effort to complete all Work under the Contract not later than the date prescribed or as soon as possible thereafter. No extension of time shall be granted for a change in the Work until all float time is consumed and the Contractor demonstrates to the satisfaction of the County by means of a Proposed Revised Project Schedule that it is making, or has made, every reasonable effort to guarantee completion of the additional Work called for by the

change within the time originally allotted for the Contract. Contractor shall not use zero free float or zero total float constraints in the Project Schedule program.

c. **Weather Delays and Unusual Circumstances:** Contractors shall not be assessed with liquidated damages, nor the actual cost of engineering and inspection during any delay in the completion of the project caused by acts of God, the public enemy, fire, flood, epidemic, quarantine restriction, strike, freight embargo, or unusual action of the elements; provided that Contractor shall notify the County in writing of the causes of delay within three days from the beginning of any such delay. The County shall determine the facts with regard to the delay and determine a reasonable period of time by which the date of completion shall be extended by reason thereof. The findings of the County shall be final and conclusive.

If adverse weather conditions are the basis of a claim for additional time, such claim shall be documented by data substantiating the weather conditions were abnormal for the month they occurred and that the weather conditions had an adverse impact on the timely performance of the Work beyond the control of the Contractor. In all cases, approved weather delays are non- compensable time extensions to the contract.

The term unusual action of the elements" is limited to extraordinary adverse weather conditions or conditions immediately resulting therefrom which cause a cessation in the progress of the Work which will delay the time of completion of the Contract.

Contractor shall have no right to an adjustment in the time of completion due to weather conditions or industrial conditions that are normal for the locality of the site. The time period for completion of the project has been determined with consideration given to the five year average rainfall statistics and usual industrial conditions prevailing in the locality of the site as documented by NOAA – reference Specification Section 01 32 10. Inclement weather will not be considered severe and unusual unless it results in precipitation which exceeds the maximum daily precipitation or the maximum precipitation for indicated duration.

d. **Emergency Changes and other Delays:** If Contractor is delayed in completing the Work by reason of any act of the County or its Agents that are in breach of this Contract, or by reason of changes made pursuant to paragraph **6.05 Emergency Changes** without agreement being reached as to any time adjustments, the time for completion of the Work shall be adjusted for a period commensurate with the delay. Contractor shall notify the County in writing of the causes of the any such delay. The County shall determine the facts with regard to the delay and determine a reasonable period of time by which the date of completion shall be extended by reason thereof. The findings of the County shall be final and conclusive.

e. **Excusable Compensable Delay:** "Excusable Compensable Delay" means any delay to the critical path of the work occurring after commencement and prior to completion of the work: (1) which directly impacts the number of calendar days established in the Agreement for completion; (2) for which County is responsible, is unreasonable under the circumstances involved, and not within the contemplation of the parties; and (3) is not due, in whole or in part, to the breach, negligence, or fault of Contractor, its Subcontractors, or Suppliers. Contractor's remedy for Excusable Compensable Delay shall be extension of the date for completion and Milestones subject to the Conditions to Time Extensions identified above and adjustment of the Contract Price by the daily rate specifically identified as the rate to be paid to Contractor for Excusable Compensable Delays. It is agreed by the parties

that in the case of Excusable Compensable Delay, damage may be sustained by the Contractor, and that it is and will be impractical and extremely difficult to ascertain and determine the actual damage which the Contractor may sustain in the event of and by reason of such delay; and it is therefore agreed that if Contractor is entitled to an increase in the Contract Price as a result of Excusable Compensable Delay, the Contract Price will be increased by the sum of THREE THOUSAND DOLLARS ($3,000.00) per day for each day for which such compensation is payable.

f. **County Discretion:** Even when the Contractor has no right to an extension of time for completion of the Work, the County may extend the time if the County determines it to be in the best interest of the County.

g. **Extensions due to Litigation:** Should the County be prevented or enjoined from proceeding with Work either before or after the start of construction by reason of any litigation or other reason beyond its control, Contractor shall not be entitled to make or assert claim for damage by reason of said delay; but time for completion of the Work will be extended to such reasonable time as the County may determine. Any such determination will be set forth in writing.

7.4 Work Not Completed in Time and Assessment of Damages: Time is of the essence hereto. If all the Work is not completed in accordance with the time period referenced in paragraph 7.02 above, the parties acknowledge that damage will be sustained by the County, and that it is and will be impractical and extremely difficult to ascertain and determine the actual damage that the County will sustain in the event of an by reason of such delay; and it is therefore agreed that the Contractor will pay to the County as liquidated damages the sum of THREE THOUSAND DOLLARS ($3,000.00) per day for each and every calendar day(s) that expires after the time referenced in paragraph 7.02 above until all of the Works is completed. The parties agree that the aforesaid liquidated damages amount(s) area reasonable estimate of the harm that will be sustained by the County as a whole as a result of the additional costs, damages, loss of use, risks and inconveniences that the County would incur as a result of such delay. The parties further acknowledge that the aforesaid liquidated damages amount(s) do not constitute a penalty. The Contractor agrees to pay said liquidated damages, and further agrees that the County may deduct the amount thereof from any moneys due or that may become due the Contractor under the contract, including but not limited to, progress payments. Liquidated damages will accrue until the Work is completed and accepted, and Contractor and its surety shall be liable for the amount thereof.

8. PAYMENT AND COMPLETION

1. Payments

a. **Schedule of Values:** Contractor shall furnish, on forms approved by the County, within ten (10) Days after receiving the fully executed Construction Contract, a detailed Schedule of Values giving a complete breakdown of Contract Sum for each component of the Work. The Schedule of Values shall be in sufficient detail that the County may, in its discretion, deem necessary to evaluate progress at any point in the performance of the Work, including, without limitation, a breakdown of the general categories of Subcontractor work, direct overhead, profit and contingency, and a further breakdown of the categories of Subcontractor work into separate trade line items of costs for Subcontractor services, labor and material, which is based on actual Subcontractor contract, subcontract, purchase order

or vendor prices.

If requested by the County, Contractor shall revise the Schedule of Values so as to allocate sums for Contractor overhead, profit and/or contingency among the individual line items for trade portions of the Work. No amounts shall be reflected in the Schedule of Values or in the Application for Payment for Extra Work or Deleted Work for which a Change Order has not been executed by Contractor and County. Amounts that have been mutually agreed to by Change Order shall, at the direction of the County, be either separately listed by line item in the Schedule of Values or incorporated into the existing line item(s) of the trade(s) performing such Work. The Schedule of Values must be prepared in sufficient detail and supported by such data to substantiate its accuracy as County may require.

Said schedule shall be on a Payment Request Form approved by the County prior to approval of any progress payment. The values in said schedule shall then be used by the County for verifying the amount of each progress payment. If, at any time, it is determined that the Schedule of Values does not allocate the Contract Price in a manner that reasonably and fairly reflects the actual costs anticipated to be progressively incurred by Contractor, it shall be revised and resubmitted for approval by County.

b. **Application for Payment / Payment Request:** Each payment request shall be on a form approved by the County. Once each month, Contractor shall prepare and forward to the County a statement in writing on a form approved by the County, an update of the approved Schedule of Values, indicating the total amount of the Work done and the acceptable materials furnished and delivered by Contractor on the ground and not used, or acceptable materials furnished and stored (if such storage is subject to or under the control of the County), for use in the performance of this Contract to the time of such statement and the value thereof. Payment of undisputed Contract amounts is contingent upon the Contractor furnishing the County with a release of all claims against the County arising by virtue of this Contract related to those amounts. Disputed Contract claims in stated amounts may be specifically excluded by the Contractor from the question of the release as provided upon the Schedule of Major Parts.

c. **Payment Processing:** Per Section 20104.50 of the Public Contract Code:

1. **Payment Request Review by the County:** Each Payment Request shall be reviewed by the County as practicable after receipt for the purpose of determining that the Payment Request is accurate and proper.

2. **Rejected Payment Request:** Any Payment Request determined not to be a proper Payment Request suitable for payment shall be returned to the Contractor as soon as practicable, but not later than seven (7) days, after receipt. A request returned pursuant to this paragraph shall be accompanied by a document setting forth in writing the reasons why the Payment Request is not proper.

3. **Interest:** The number of days available to the County to make a payment without incurring interest pursuant to this section shall be reduced by the number of days by which a local agency exceeds the seven (7) day return requirement.

4. **Progress Payment:** A “Progress Payment” includes all payment due to Contractors, except the portion of the final payment designated by the Contract as Retention Earnings.

Upon Public Works Director's written approval of Contractor's Payment Request, the County shall, within 30 days of receipt, pay to Contractor, while carrying on the Work, the balance not retained, as described below, after deducting therefrom all previous payments and all sums to be kept or retained under the provisions of law or of this Contract. No such payment shall be construed to be an acceptance of any defective Work or improper materials.

d. **Retaining Five Percent (5%) As Security:** The County shall retain five (5%) of the value of the Work done, and five percent (5%) of the value of the materials so estimated to have been furnished and delivered and unused or furnished and stored as aforesaid as part security for the fulfillment of this Contract by Contractor.

e. **Correction of Statement and Withholding of Payment:** No inaccuracy or error in said statement shall operate to release Contractor or any surety from damages arising from such Work or from enforcing each and every provision of this Contract. The County shall have the right to adjust any payment request, or to recover any payment made for Work performed, so long as any lawful or proper direction concerning the Work or any portion thereof given by the County shall remain uncompleted.

f. **Withholding Additional Amounts:** In addition to the amounts which the County may retain as provided herein above, the County may withhold a sufficient amount or amounts of any payment or payments otherwise due to Contractor as in its judgment may be necessary to cover:

1. Payments which may be past due and payable for just claims against Contractor or any subcontractor for labor or materials furnished in or about the performance of the Work on the project under this Contract;

2. For defective Work not remedied;

3. For failure of Contractor to make proper payments to any subcontractors; and

4. Reasonable doubt that the Contract can be completed for the balance then unpaid.

g. **Disbursement of Withheld Amounts:** The County may apply such withheld amount or amounts to the payment of such claims, in its discretion. In so doing, the County shall be deemed the agent of Contractor and any payment so made by the County shall be considered as a payment made under this Contract by the County to Contractor, and the County shall not be liable to Contractor for such payment made in good faith. Such payment may be made without prior judicial determination of the claim or claims. The County will render to Contractor a proper accounting of such funds disbursed on behalf of Contractor.

h. **Liens and Stop Notices:**

1. **Withholding by the County:** Should Stop Notices be filed with the Clerk of the Board or the County Auditor/Controller, the County reserves the right to withhold 125% of the claimed amount from payments until such claims shall have been resolved pursuant to law, (Civil Code Section 9000, et seq). County will not be responsible for the filing of Stop Notice on behalf of any Claimant.

2. **Certified Copy:** Upon filing a Stop Notice, the Claimants shall provide a certified copy of the copy of the Stop Notice to the County as prescribed in General Conditions Section 12.02, Notices. Failure to provide a copy to The County's Public Works may impact the effectiveness of the ability of the County to withhold funds in a timely or effective manner.

3. **Unconditional Waiver and Release of Liens:** At the election of the County, the Contractor shall provide, within **thirty (30)** days of receipt of each progress payment, unconditional waivers and release of lien rights, conditional subcontractor and material waivers, and unconditional waivers of previous payments, signed by Contractor and each of its subcontractors and materials suppliers, in the form established therefor by Section 8134 of the Civil Code of the State of California.

i. **Audits:** The County retains the right to audit the Contractor's records, including but not limited to cost reports, material invoices and other such documents.

2. Project Completion

a. **Substantial Completion:**

When the Contractor feels that "Substantial Completion" has been achieved and at least 30 days prior to the completion date established in the Notice to Proceed plus any extensions granted in approved Change Orders, the following items shall be submitted:

1. **Request for Inspection for Substantial Completion of the Work:** The Contractor shall, in writing, submit a Request for Inspection for Substantial Completion of the Work. The County shall determine the validity of the request and respond stating a time and date of the inspection, including for attendance by any Consultants responsible for review of the Work and other parties as the County may desire in attendance.

2. **Contractor's Punch List:** A Punch List of items to be completed and/or corrected shall be prepared by the Contractor and presented to the County with the Request for Inspection for Substantial Completion of the Work. The Contractor shall certify that the remaining items of Work shall be completed within 30 days and that the remaining items of Work do not in any way negatively impact the County's full and complete use of the Work. Failure to include any items on the punch lists shall not alter the responsibility of the Contractor to complete all the Work in accordance with the Contract Documents.

3. **Closeout Submittals:** Prior to the Inspection for Substantial Completion and within sufficient time for review by the County and its Consultants, the Contractor shall submit all record drawings, catalog data, complete operating and maintenance instructions, certificates, warranties, written guarantees and related documents as required by the Contract.

4. **County Inspection and Final Punch List:** The County and its consultants shall review the submittals, and if the Request for the Inspection is valid, conduct an inspection of the Work. The County shall review the Punch List, incorporating additional comments from the inspection for completion and/or correction by the Contractor for a Final Punch List.

b. **Final Completion and Acceptance of the Work:** The County Director of Public Works, upon agreeing that the Work is complete after completion of all Final Punch List items, and upon receipt of the fully executed Affidavit of Final Payment, and the required Maintenance Bond, and in accordance with all other provisions for project close out described herein, shall issue a Certificate of Completion to the Contractor and shall file a Notice of Completion and Acceptance with the County Clerk-Recorder.

Final Completion and Acceptance of the Work shall be made in accordance with the following steps and conditions:

1. **Contractor's Notice of Final Completion:** Within 30 days of the Request for Inspection and upon completion of all of the Final Punch List items, the Contractor shall submit a Contractor's Notice of Final Completion" in conformance with the Final Close Out Procedures within the Contract Documents, indicating that the Work is complete and ready for final inspection and acceptance. Failure by the Contractor to complete any items on the Final Punch List within 30 days of the request for Substantial Completion Inspection enables the County to require performance of same by the Contractor's Surety or otherwise arrange for completion of those items of Work and to deduct all costs thereof, as well as any liquidated damages or actual damages incurred from the Final Payment by means of deductive Change Order.

2. **Final Inspection:** Upon receipt of "Contractor's Notice of Final Completion" the County, the Fire Marshal, and the Building Inspector shall promptly make final inspections.

3. **Contractor Close-Out Documents:** Contractor shall submit the following to the County before Final Inspection and after required corrections and/or repairs have been made:

    a. **Affidavit for Final Payment:** After the completion of the Work of this Contract, the Contractor shall file with the County his or her affidavit signed under penalty of perjury stating that all workers and persons employed, all firms supplying the materials and all subcontractors upon the project have been paid in full and that there are no bills outstanding against the project for either labor or materials except certain items, if any, to be set forth in connection with which notices to withhold have been filed under the statutes of the State of California. The filing of such affidavits by the Contractor shall be required prior to Contractor's receipt of the final payment on this Contract.

    b. **Guarantees:** Contractor shall submit a Guarantee in accordance with Division 00 60 00 Guarantee for Total Work of these Contract Documents, and any additional Guarantees required by the technical provisions of the Contract Documents.

    c. **Owner Training/Systems Commissioning:** Refer to Specification Section 01 79 00.

    d. **As-Built Drawings and Specifications:** Contractor shall submit As-Built Drawings and Specifications in accordance with **General Conditions item 3.17 As-built Drawings and Specifications**.

    e. **Maintenance Bond:** Contractor shall furnish a Maintenance Bond in the amount equal to five percent (5%) of the final Contract price, secured from a surety company admitted in the State of California and satisfactory to the County. Said bond shall protect the County against the result of faulty material or workmanship and shall

remain in effect for a period of one year after the date the County's Notice of Completion and Acceptance is filed with the Clerk-Recorder of the County of San Luis Obispo.

4. **County's Final Certificate of Completion:** Following satisfactory completion of the above, the County shall file a certificate, over the County Director of Public Works signature, stating the Work has been given a final inspection and is approved by them, that the above required documents have been submitted, and that the Work provided for in this Contract has been completed and is accepted by them under the terms and conditions thereof. The Work, however, will not be deemed as accepted by the County until the County's Notice of Completion and Acceptance is filed with the County Clerk-Recorder of the County of San Luis Obispo.

5. **Notice of Completion and Acceptance:** The Notice of Completion and Acceptance shall be submitted to the County Public Works Director for approval on behalf of the County Board of Supervisors stating the final completion date and defining the project and the parties of the project Agreement.

6. **Execution of Notice of Completion and Acceptance of Contract by the County:** Upon acceptance of the Work by the County Public Works Director on behalf of the Board of Supervisors for the County of San Luis Obispo, and the subsequent recording of the "Execution of Notice of Completion and Acceptance of Contract by the County" by the County Clerk-Recorder, the Work shall be deemed fully completed and the provisions of this Contract fully performed in all completed respects. Recordation of the Notice of Completion and Acceptance shall not be deemed an acceptance of latent defects nor shall it constitute a waiver of any of the provisions of this Contract.

7. **Certificate of Final Payment:** Within thirty-five (35) days after the filing of the above described Notice of Completion and Acceptance with the County Clerk-Recorder, the Director of Public Works shall present a "Certificate of Payment" to the County Auditor stating that the entire balance found to be due Contractor, less any retentions held, and noted in said Certificate, is due and payable.

8. **Approval of Final Payment:** Following receipt of said "Certificate of Final Payment" by the County Auditor, said Auditor will issue final payment (full amount of Contract Sum less 5% retention) to be paid on account thereof to the Contractor.

9. **Release of Retention:** Pursuant to the Public Contract Code Section 7107, within 60 days, but not less than 30 days of the recording of the Resolution Authorizing Execution of the Notice of Completion and Acceptance of Contract by the County with the County Clerk-Recorder, the retention withheld shall be released. The Contractor is required to submit a payment request for release of the retention amounts.

9. TERMINATION

1. **Cause and Performance of Termination of Contract:** If Contractor should be adjudged as bankrupt, or if it should make a general assignment for the benefit of its creditors, or if a receiver should be appointed on account of its insolvency, or if it or any of its subcontractors should violate any of the provisions of the Contract, or if it should persistently or repeatedly refuse or should fail except in cases for which extension of time is provided, to supply enough properly

skilled workers or proper materials, or if it should fail to make prompt payment to subcontractors or for material or for labor, or persistently disregard laws, ordinances or the instructions of the County, then the County, upon the determination of the County Public Works Director that sufficient cause exists to justify such action, may, without prejudice to any other right or remedy, give written notice to Contractor and its Surety of its intention to terminate the Contract, and unless within five (5) days after the giving of such notice such violation shall cease and satisfactory arrangements for correction thereof be made, the Contract shall, upon expiration of said five (5) days, cease and terminate. In the event of any such termination, the County shall immediately give written notice thereof to the Surety and the Contractor, and the Surety shall have the right to take over and perform the Contract, provided, however, that if the Surety within the ten (10) days after the giving of notice of termination does not give the County written notice of its intention to take over and perform the Contract or does not commence performance thereof within the ten (10) days stated above from the date of the giving of such notice, the County may take over the Work and prosecute the same to completion by Contract or by any other method it may deem advisable, for the account and at the expense of the Contractor, and the Contractor and its Surety shall be liable to the County for any excess cost occasioned by the County thereby, and in such event the County may without liability for so doing, take possession of and utilize in completing the Work, such as may be on the site of the Work and necessary therefor.

2. **Option in Case of Loss:** In the event that destruction or loss should exceed twenty percent (20%) of the completed value of the construction as determined at the end of the preceding month, it shall be optional with the County to terminate this Contract or to proceed to completion.

3. **Expense of Finishing Work – Contractor's Liability:** If the unpaid balance of the Contract price shall exceed the expense of finishing the Work, including compensation for additional managerial and administrative services, such excess shall be paid to the Contractor. If such expense shall exceed such unpaid balance, the Contractor shall pay the difference to the County. The expense incurred by the County as herein provided, and damage incurred through the Contractor's default, shall be certified by the Public Works Director. In such cases the Contractor shall not be entitled to receive any further payment until the Work is finished.

4. **Provisions for Termination of Contract:** This Contract is subject to termination as provided by Sections 4410 and 4411 of the Government Code of the State of California, being portions of the Emergency Termination of Public Contracts Act of 1949.

5. **Termination for Convenience**

   a. The County may, at any time, terminate the Contractor's services in whole or in part, for County's convenience without cause. Termination by the County under this paragraph shall be by written Notice of Termination delivered to Contractor specifying the extent of termination and the effective date. Any such termination of Contractor's services, in whole or in part shall not prejudice any other right of remedy of County under the Contract.

   b. Upon receipt of a Notice of Termination for convenience, Contractor shall immediately, in accordance with instruction for the County, proceed with performance of the following duties regardless of any delay in determining or adjusting amounts due under this paragraph:

      1. Cease operations as specified in the Notice;
      2. Place no further orders and enter into no further subcontracts for materials, labor, services, or facilities except as necessary to complete continued portions of the Contract;

3. Terminate all subcontracts and orders to the extent they relate to the Work terminated;
4. Proceed to complete the performance of the Work not terminated; and
5. Take actions that may be necessary, or that County may direct, for the protection and preservation of the terminated Work.

c. Remedy for Completed Work
Upon such termination, Contractor shall recover a its sole remedy for Work performed, based on the percentage of the Contract Award equal to the percentage of the Work performed satisfactorily and not previously paid as determined by the County and the County's construction representative (so if only 10 percent of a Bid item is completed, Contractor's sole remedy for that Work completed is recovery of 10 percent of that Bid item Award, or 10 percent of the Schedule of Values relating to that bid item, whichever is the lesser amount).

d. Remedy for Work Uncompleted Work
Contractor's sole remedy for uncompleted Work shall be the recovery of those reasonable expenses sustained prior to the effective date of Notice of Termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus a five percent (5%) markup (that would cover all overhead and profit). Contractor's sole remedy for demobilization costs shall be the recovery of those reasonable costs incurred in demobilization, reduced by the percentage of the completed Work relating to the demobilization undertaken (so if certain reasonable demobilization costs relate to Work that is 60 percent completed Contractor shall only be entitled to recover 40 percent of those costs).

Contractor herby waives and forfeit all other Claims for payment and damages, including, without limitation, anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

10. CONSTRUCTION BY THE COUNTY OR SEPARATE CONTRACTORS

Contractor must ascertain to its own satisfaction the scope of the Work and the nature of any other Contracts that have been or may be awarded by the County in the prosecution of the Work to the end that Contractor may perform this Contract in the light of such other Contracts, if any. Nothing herein contained shall be interpreted as granting to Contractor exclusive occupancy of the site of the Work. The Contractor shall work in harmony with and be compatible with all other labor being used by the County or other Contractors on the site. The Contractor shall coordinate its Work with the Work of the County and other Contractors, and shall provide adequate information and planning of its Work to allow effective coordination by others with its operations. The Contractor shall not cause any unnecessary hindrance or delay to any other Contractor, subcontractor or workers working on any Project that encompasses the Work. If the performance of any Contract for the Work is likely to be interfered with by the simultaneous execution of some other Contract or Contracts, the Contractor shall immediately give notice thereof to the County. The County shall decide which Contractor shall cease work temporarily and which Contractors may proceed simultaneously. The County shall not be responsible for any damages suffered or extra costs incurred by Contractor or any other Contractor, subcontractor or worker resulting directly or indirectly from the award or performance or attempted performance of the Contracts awarded for the completion of the Work, and Contractor agrees to indemnify and hold the County harmless against any claims for such damages or costs.

11. RESOLUTION OF CONSTRUCTION CLAIMS

A "Claim" means any separate demand or assertion by the Contractor that requests an adjustment of Contract Price (including any requests for payment of additional money) and/or an adjustment of Contract Times (including any requests for time extension), or requests any other form of relief or remedy whatsoever relating to this Contract, regardless of whether the basis of the demand or assertion arises from an interpretation of the Contract Documents, an action or inaction of one of the parties or its representative(s), or any other event, issue, or circumstance whatsoever.

Only a Notice of Final Claim submitted in strict compliance with all of the requirements of this Section 11 (including but not limited to the requirements relating to an Initial Notice of Potential Claim and Supplemental Notice(s) of Potential Claim) shall be deemed a valid Claim under these Contract Documents.

For Purposes of this Section 11 any and all work relating to a Claim shall be referred to as "Disputed Work".

1. Mandatory Procedure and Condition Precedent

a. All Claims must be in strict compliance with the requirements of this Section 11, regardless of whether the Claim is at the "Potential Claim" stage (described below), or is a "Final Claim" (referenced below). All costs incurred by the Contractor in complying with the provisions of this Section 11 shall be borne solely by the Contractor, shall be the Contractor's sole responsibility, and shall be non-reimbursable.

b. Compliance with these requirements is a condition precedent to the Contractor's ability to exercise any rights or remedies that may otherwise be available to Contractor under the Contract Documents or any applicable Laws or Regulations relating to the Claim. No action or inaction by the Contractor or the County of San Luis Obispo to try to resolve any Claim(s) through agreement (including Change Order), mediation, settlement, or any other means shall excuse the Contractor from complying with the requirements of this Section 11.

c. This Section 11 Resolution of Construction Claims shall be interpreted in a manner consistent with Public Contract Code sections 9204 and 20104 - 20104.6. To the extent there is any conflict between Section 11 and these statutes, the statutory provisions shall prevail. The text of Public Contract Code sections 9204 and 20104 -20104.6 is attached to these Contract Documents as Appendix B "Public Contract Code Sections 9204 and 20104 - 20104.6."

d. In the event of any conflict between Section 11 and any other language in the Contract Documents, the provisions of Section 11 shall take precedence over any such conflicting language.

2. Contractor's Continuing Obligations

a. At all times during the processing of the Contractor's Claim, the Contractor shall diligently proceed with the performance of the Disputed Work and other Work, unless otherwise specified or directed by the County of San Luis Obispo.

b. The Contractor shall provide the County Representative the opportunity to examine the site of the Disputed Work as soon as reasonably possible, and in no event later than 24 hours after the event, issue, or circumstance from which the Claim arises. Throughout the processing of the Contractor's Claim, the Contractor shall provide the Engineer a reasonable opportunity to examine the site of the Disputed Work, and in no event shall access be denied for more than 24 hours of the County Representative's written request therefor.

c. The Contractor shall promptly respond to any requests for further information or documentation regarding the Contractor's Claim. If the Contractor fails to provide an adequate written response to the County of San Luis Obispo within fifteen (15) days of the

County of San Luis Obispo's written request for such further documentation or information, the Contractor shall be deemed to have waived its Claim. If the further documentation or information requested by the County of San Luis Obispo would, in the opinion of the County of San Luis Obispo, reasonably take the Contractor more than fifteen (15) days to comply with, the written request shall provide the Contractor a specific response deadline that is commensurate to a reasonable response time.

d. Throughout the performance of the Disputed Work, the Contractor shall maintain records that provide a clear distinction between the incurred direct costs of Disputed Work and other Work. The Contractor shall allow the Engineer prompt access to those Contractor records that the County Representative deems necessary to evaluate the Claim, and in no event shall access be denied for more than five (5) days of the date of the County Representative's written request. The Contractor's failure to comply with the provisions of this Section 5-1.08 shall constitute a waiver of the Contractor's Claim.

e. All Subcontractor's and material supplier's claims of any type shall be brought only through Contractor pursuant to the provisions of this Section 11. Under no circumstances shall any Subcontractor or material supplier make any direct claim against County. All requirements in this Section relating to the Engineer's right to request further information and documentation regarding a Claim, and the Engineer's right to direct access to records deemed relevant to a Claim, shall apply equally to any such information, documentation or records of a subcontractor or material supplier relating to a pass-through claim submitted by the Contractor.

f. Except where provided by law, or elsewhere in these Contract Documents, THE COUNTY SHALL NOT BE LIABLE FOR SPECIAL OR CONSEQUENTIAL DAMAGES AND THE CONTRACTOR SHALL NOT INCLUDE THEM IN ITS CLAIMS. Contractor shall be limited in its recovery on any Claim(s) to the adjustments allowed in the Contract Documents.

g. During each step in the processing of the Contractor's Claim, each notice shall be accompanied by the Contractor's written statement that the adjustment or relief claimed is the entire adjustment or relief to which the claimant believes it is entitled as a result of the event, issue, or circumstance giving rise to the Claim.

h. The Contractor shall be responsible for providing written evidence of the date any of the notices referenced in Section 11 above were provided to County of San Luis Obispo, and shall provide County of San Luis Obispo a copy of such written evidence within five (5) days of a request thereof. Such evidence shall be either a written receipt of actual delivery from U.S. Postal Service or other reputable delivery service, or by the recipient's written acknowledgement of receipt.

i. The rights of the County of San Luis Obispo to request further records, documents, or information from the Contractor regarding a Claim are for the sole benefit of the County of San Luis Obispo, and may be exercised at his/her sole discretion. Any failure by the County of San Luis Obispo to exercise its rights does not provide the Contractor any excuse for not providing all of the records, documents, and other information it is required to provide under Section 11 or any other provision of the Contract Documents.

j. Contractor's compliance with the provisions of this Section 11 shall not excuse Contractor's failure to comply with any additional requirements set forth in the Contract Documents, including but not limited to, any provisions relating to Contractor's obligation to provide any notice, information, documentation, inspections, site access, or any other requirements relating to any event, issue, or circumstance relating to the Contract.

k. Under no circumstances may the Contractor submit an Initial Notice of Potential Claim,

Supplemental Notice of Potential Claim, or Notice of Final Claim after the date of final payment. Any such notices submitted after the date of final payment shall be null and void.

l. All of the above requirements are applicable during each and every step in the processing of the Contractor's Claim, and are applicable regardless of whether the Claim is at the "Potential Claim" stage or is a "Final Claim". The County reserves the right to reject any information or documentation submitted by a Contractor after any applicable time deadline for submitting the information or documentation set forth in this Section.

11.3 Claim Identification Number

a. The Contractor shall assign an exclusive identification number for each potential Claim, determined by chronological sequencing, based on the date of the potential Claim. The nature and circumstances involved in the dispute shall remain consistent throughout the processing of the Claim.

b. The exclusive identification number for each Claim shall be used on the following corresponding documents:

1. Initial Notice of Potential Claim.
2. Supplemental Notice of Potential Claim.
3. Notice of Final Claim.
4. Contractor's written Statement of Claims.

11.4 Initial Notice of Potential Claim

a. Promptly upon becoming aware of any event, issue, or circumstance which the Contractor believes provides a basis for an adjustment of Contract Price and/or Contract Times, or other relief, Contractor shall provide a signed written Initial Notice of Potential Claim to the County of San Luis Obispo. The Initial Notice of Potential Claim shall be submitted before commencing any Disputed Work (except when exigent circumstances require immediate action by the Contractor), or within five (5) days of the event, issue, or circumstance from which the Claim arises, whichever is earlier.

b. The Initial Notice of Potential Claim shall clearly state the Contractor's grounds for seeking an adjustment in Contract Price and/or Contract Times or other relief, the nature and circumstances of the Disputed Work, the relief or adjustment sought by the Contractor for the Disputed Work. The Initial Notice of Potential Claim shall be submitted on a form furnished by the County of San Luis Obispo and shall be certified under penalty of perjury with reference to the California False Claims Act, Government Code Sections 12650-12655.

c. After reviewing the Initial Notice of Potential Claim, the County of San Luis Obispo may provide a written response thereto or may decide to delay providing a response until the Contractor provides further information regarding the potential Claim pursuant to the provisions of this Section 11.

11.5 Supplemental Notice of Potential Claim

a. Within fifteen (15) days of submitting the Initial Notice of Potential Claim, the Contractor shall submit a signed Supplemental Notice of Potential Claim to County of San Luis Obispo that provides the following information:

1. The complete nature and circumstances of the dispute which caused the potential Claim.

2. The contract provisions that provide the basis of the potential Claim.
3. The requested adjustment of Contract Price, if any, and the estimated cost of the potential Claim, including an itemized breakdown of individual costs and how each estimate was determined.
4. The requested adjustment of Contract Time, if any, and a time impact analysis of the schedule that illustrates the effect on the scheduled completion date due to schedule changes or disruptions.

b. The information provided by the Contractor shall provide the Contractor's complete reasoning for additional compensation or adjustments and shall be as complete as reasonably possible.

c. The Supplemental Notice of Potential Claim shall be submitted on a form furnished by County of San Luis Obispo and shall be certified under penalty of perjury with reference to the California False Claims Act, Government Code Sections 12650-12655. If at any time the estimated cost of the potential Claim or effect on the Progress Schedule changes, Contractor shall update information in items 3 and 4 above as soon as the change is recognized and submit this information to County of San Luis Obispo.

d. If the Disputed Work is not completed within thirty (30) days, the Contractor shall, every thirty (30) days until the Disputed Work ceases, submit to the County of San Luis Obispo an updated Supplemental Notice of Potential Claim that shall update and quantify all of the information required in the Supplemental Notice of Potential Claim. The Contractor's failure to so quantify costs and schedule impacts every thirty (30) days shall result in a waiver of the Claim for that 30- day period. Any supplemental notice or updated notice that states that the requested adjustment of Contract Price and/or Contract Time will be provided or determined at a later date, or that any damages, costs, schedule impacts, and/or any other analysis will be provided or determined at a later date, shall be deemed to be not in compliance with this Section 11, and shall result in the Contractor waiving its Claim.

e. After reviewing the Supplemental Notice of Potential Claim or updated Supplemental Notice of Potential Claim, the County of San Luis Obispo may provide a written response thereto or may decide to delay providing a response until the Contractor provides further information regarding the potential Claim pursuant to the provisions of this Section 11.

11.6 Notice of Final Claim

As soon as reasonably practical upon completion of the Disputed Work, and no later than thirty (30) days after completion of the Disputed Work, the Contractor shall submit to the County of San Luis Obispo a Notice of Final Claim containing a full and final documentation of the Claim including, but not limited to, the following information:

a. A detailed factual narration of events fully describing the nature and circumstances that caused the dispute, including, but not limited to, necessary dates, locations, and items of Work affected by the dispute.

b. The specific provisions of the Contract that support the Claim and a statement of the reasons these provisions support and provide a basis for entitlement of the Claim.

c. When additional monetary compensation is requested, the exact amount requested calculated in conformance with the Contract Documents and shall include an itemized breakdown of individual costs. These costs shall be segregated into the following cost categories:

1. Labor – A listing of individuals, classifications, regular hours and overtime hours worked, dates worked, hourly labor rates, and other pertinent information related to the requested reimbursement of labor costs.

2. Materials – Invoices, purchase orders, location of materials either stored or incorporated into the work, dates materials were transported to the project or incorporated into the work, and other pertinent information related to the requested reimbursement of material costs.

3. Equipment – Listing of detailed description (make, model, and serial number), hours of use, dates of use, and equipment rates. Equipment rates shall be at the applicable State rental rate as listed in the Department of Transportation publication entitled "Labor Surcharge and Equipment Rental Rates," in effect when the Disputed Work was performed.

4. Other categories as specified by Contractor or County of San Luis Obispo.

d. When an adjustment of Contract Time is requested the following information shall be provided:

    1. The chronology of the specific dates for which Contract Time is being requested.

    2. The specific reasons for entitlement to a Contract Time adjustment.

    3. The specific provisions of the Contract that provide the basis for the requested Contract Time adjustment.

    4. A detailed time impact analysis of the schedule. The time impact analysis shall show the effect of changes or disruptions on the scheduled completion date to demonstrate entitlement to a Contract Time adjustment.

e. The listing, identification, and production of copies of all documents the Contractor believes support its Claim and the date, time, circumstances, details and substance of any oral communications that the Contractor believes support the Claim.

The Notice of Final Claim shall be submitted on a form furnished by the County of San Luis Obispo and shall be certified under penalty of perjury with reference to the California False Claims Act, Government Code Sections 12650-12655.
No Notice of Final Claim will be considered that does not have the same nature and circumstances, and basis of Claim as those specified on the Initial and Supplemental Notices of Potential Claim.

11.7 <u>Response to Notice of Final Claim</u>

a. Date of Final Decision in Response to Final Claim
In the event a valid written decision is not provided to the Contractor within the time prescribed in this Section 11, the Claim shall be deemed denied on the last day a written response was due. The date upon which the Claim is approved or denied pursuant to the provisions of this Section 11, shall constitute the date of the final decision on the Claim under the provisions of this Section 11. The date of the final decision on a Claim can only be changed by a subsequent writing signed by County of San Luis Obispo and County that expressly states that the date of the final decision on the Claim has been changed to a new specific date."

b. Public Contract Code Requirements for Claims Less Than or Equal to $375,000.

1. Written Response to Claims of less than $50,000.
For Claims of less than fifty thousand dollars ($50,000), the County of San Luis Obispo shall respond in writing to the Notice of Final Claim within forty-five (45) days of receipt thereof, or may request, in writing, within thirty (30) days of said receipt, any additional documentation relating to the Claim or any defenses to the Claim the County may have against the Contractor. The Contractor shall comply with the request within the reasonable time deadlines provided by the County of San Luis Obispo in the request. If additional information is thereafter required, it shall be requested and provided upon mutual agreement of the County and the Contractor. The written response to the Notice of Final Claim shall be submitted to the Contractor within fifteen (15) days after receipt of the further documentation or within a period of time no greater than that taken by the Contractor in producing the additional information, whichever is greater.

2. Written Response to Claims Over $50,000 and Less Than or Equal to $375,000

For Claims of over fifty thousand dollars ($50,000) and less than or equal to three hundred seventy-five thousand dollars ($375,000), the County of San Luis Obispo shall respond in writing to the Notice of Final Claim within forty-five (45) days of receipt thereof, or may request, in writing, within thirty (30) days of said receipt, any additional documentation relating to the Claim or any defenses to the Claim the County may have against the Contractor. The Contractor shall comply with the request within the reasonable time deadlines provided by County of San Luis Obispo in the request. If additional information is thereafter required, it shall be requested and provided upon mutual agreement of the County and the Contractor. The written response to the Notice of Final Claim shall be submitted to the Contractor within thirty (30) days after receipt of the further documentation, or within a period of time no greater than that taken by the Contractor in producing the additional information or requested documentation, whichever is greater.

3. Right to Meet and Confer For Claims Less Than or Equal to $375,000

For Claims less than or equal to $375,000, if the Contractor disputes the written response to the Claim, or if a written response is not submitted within the time prescribed above, the Contractor may so notify the County of San Luis Obispo and County, in writing, either within fifteen (15) days of receipt of the written response or within fifteen (15) days of the County of San Luis Obispo's failure to respond within the time prescribed, respectively, and demand an informal conference to meet and confer for settlement of the issues in dispute. Upon such a timely demand by the Contractor, the County of San Luis Obispo shall schedule a meet and confer conference within thirty (30) days for settlement of the dispute. Within thirty (30) days after such conference, a final written response to the Claim shall be issued which will serve as the new final decision on the Claim. Pursuant to Public Contract Code section 20104.6, the County shall not fail to pay money as to any portion of a Claim which is undisputed, except as otherwise provided in the Contract Documents.

4. For Claims Greater Than $375,000

For Claims over three hundred seventy-five thousand dollars ($375,000), the County of San Luis Obispo shall respond in writing to the Notice of Final Claim within forty-five (45)

days of receipt thereof Claim, or may request, in writing, within thirty (30) days of said receipt, any additional information or documentation relating to the Claim or any defenses to the Claim the County may have against the Contractor. The Contractor shall comply with the request within the reasonable time deadline provided by the County of San Luis Obispo in the request. If any additional information is thereafter requested by the County of San Luis Obispo, it shall likewise be provided by the Contractor within the reasonable time deadline provided by the County of San Luis Obispo in such follow-up request. The written response to the Notice of Final Claim shall be submitted to the Contractor within thirty (30) days after receipt of such further information and documentation, or within a period of time no greater than that taken by the Contractor in producing the additional information or documentation, whichever is greater. The Contractor may request an informal conference to meet and confer for settlement of the issues in dispute, but the Contractor shall have no right to demand such a conference. Neither the requesting of any such conference by the Contractor or the County of San Luis Obispo, nor the holding of such conference shall affect the date of the final decision on the Claim. No written communications of the County of San Luis Obispo and/or the County sent to the Contractor after any such conference will change the date of the final decision on the Claim unless the writing expressly states that the date of the final decision is being changed to a new specific date.

5. Public Contract Code Section 9204

   If a Notice of Final Claim (submitted in compliance with all of the requirements of this Section 11) is sent to the County by registered mail or certified mail with return receipt requested, the provisions of Public Contract Code (PCC) Section 9204 shall be applicable to the extent the Notice of Final Claim states a Claim under PCC 9204.

11.8 Exclusive Remedy

The administration of a Claim as provided in this Section 11, including the Contractor's performance of its duties and obligations specified in this Section 11 is the Contractor's sole and exclusive remedy for disputes of all types pertaining to the payment of money, extension of time, the adjustment or interpretation of the Contract Documents terms or other contractual or tort relief arising from the Contract Documents. This exclusive remedy and the limitation of liability (expressed herein and elsewhere throughout the Contract Documents) apply notwithstanding the completion, termination, suspension, cancellation, breach, or rescission of the Work or the Contract Documents, the negligence or strict liability of the County, its representatives, consultants, or agents, or the transfer of Work or the Project to the County for any reason whatsoever.

The Contractor waives and covenants not to raise any claims of waiver, estoppel, release, bar, or any other type of excuse for non-compliance with these Section 11 requirements. Compliance with the procedures described in this Section 11 is a condition precedent to the right to file a Government Code Claim, commence litigation, or commence any other legal action. Claim(s) or issue(s) not raised in a timely Claim submitted under this Section 11 may not be asserted in any subsequent Government Code Claim, litigation, or legal action. Under no circumstances shall the County be deemed to have waived any provision under this Section 11.

11.9 Other Requirements Relating to Claims

a. Government Code Claim Requirements
For all Claims not resolved as a result of the Section 11 procedures, the Contractor must submit each Claim in a Government Code Section 910 form of claim for final investigation and consideration of its settlement prior to initiation of any litigation on any such Claim, as required by Government Code Section 945.4. Pursuant to Government Code Section 930.2, the one-year period in Government Code Section 911.2 is hereby reduced to 150 days. This time deadline is measured from the accrual date of each separate cause of action.

b. Tolling

For each unresolved Claim properly processed by the Contractor in accordance with Section 11, the running of the period of time within which a Government Code claim must be submitted shall be tolled during the time the Contractor is processing the Claim in compliance with Section 11. Under no circumstances shall the time for submitting a Government Code Claim be extended beyond 150 days of the date of the final decision on the Claim under Section 11. The Contractor waives the right to pursue or submit any Claims not processed in accordance with Section 11.

Other than as expressly provided above, the time deadline for filing a Government Code claim shall not be tolled by any action or inaction by the Contractor, the Architect, or the County, including but not limited to any action or inaction to try to resolve the Claim through negotiation, mediation, settlement, agreement (including Change Order), or by any other means, other than by a separate written tolling agreement expressly approved as to form (on the face of the agreement) by the County Counsel's Office.

12. MISCELLANEOUS PROVISIONS

1. **Anti-Trust Assignment:** By entering into this Contract or subcontract, Contractor, or subcontractor offers and agrees to assign to the awarding body 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. Section 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 this public works Contract or sub-contract. This assignment shall be made and become effective at the time the awarding body tenders final payment to the Contractor, without further acknowledgment to the parties.

2. **Notices:** Any formal Notice from one party to the other under this Contract shall be in writing and shall be dated and signed by the party giving such notice or by a duly authorized representative of such party. Any such notice shall not be effective for any purpose whatsoever unless served in the following manner:

a. **Notice to County:** If the notice is given to the County, it must be personal delivery thereof to Public Works Director or by depositing the same in the United States mail, enclosed in a sealed envelope, addressed to Public Works Director for the attention of signer of "Notice to Contractor to Proceed" at the return address indicated on that letterhead, with postage prepaid.

b. **Notice to Contractor:** If the notice is given to Contractor, it must be by personal delivery thereof to Contractor, or to Contractor's superintendent at the site of the Work, or by depositing the same in the United States mail, enclosed in a sealed envelope addressed to its regular place of business, or at such other address as may have been established for the

conduct of the Work, with postage prepaid; or

c. **Notice to Surety or Others:** If the notice is given to the surety or any other person, it must be by personal delivery to such surety or depositing the same in the United States mail, enclosed in a sealed envelope, addressed to such surety or person at the address of such surety or person last communicated by them to the party giving the notice, with postage prepaid.

3. **Non-Waiver:** Neither acceptance of, nor payment for, the Work or any part thereof, nor any extension of time nor any possession taken by the County, shall operate as a waiver of any of the provisions of this Contract, nor shall a waiver of any breach of this Contract, be held to be a waiver of any other or subsequent breach. In addition, recordation of Notice of Completion and Acceptance shall not be deemed an acceptance of latent defects nor shall it constitute a waiver of any of the provisions of this Contract.

4. **Conflict of Interest:**

a. Contractor may not knowingly contract with a Supplier or manufacturer if the individual or entity who prepared the plans and Specifications has a corporate or financial affiliation with the Supplier or manufacturer.

b. Owner's officers, employees, or agents shall not engage in the award or administration of this Contract if a conflict of interest, real or apparent, would be involved. Such a conflict would arise when: (i) the employee, officer or agent; (ii) any member of their immediate family; (iii) their partner or (iv) an organization that employs, or is about to employ any of the above, has a financial interest in Contractor. Owner's officers, employees or agents shall neither solicit nor accept gratuities, favors or anything of monetary value from Contractor or Subcontractor.

END OF SECTION

SECTION 00 75 00

BID PROTEST RULES

COUNTY OF SAN LUIS OBISPO

Bid protests and other challenges to the award of this Contract must comply with Rules Governing Bid Protests and Other Challenges to Awards of Construction Contracts ("Rules").

The Rules are available on the following County website:

https://www.slocounty.ca.gov/Departments/Public-Works/Forms-Documents/Design.aspx

In addition, any Bid protest must be submitted in writing to the Department of Public Works, Room 206, County Government Center, 976 Osos Street, San Luis Obispo, CA 93408; Attention: Design Engineer

SECTION 00 81 00
NON-DISCRIMINATION

1. GENERAL

1.01 Nondiscrimination:

1. During the performance of this contract, Contractor, and its subcontractors shall not deny the contract's benefits to any person on the basis of race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, genetic information, marital status, sex, gender, gender identity, gender expression, age, sexual orientation, or military and veteran status, nor shall they discriminate unlawfully against any employee or applicant for employment because of race, religious creed, color, national origin, ancestry, physical disability, mental disability, reproductive health decision making, medical condition, genetic information, marital status, sex, gender, gender identity, gender expression, age, sexual orientation, or military and veteran status. Contractor shall insure that the evaluation and treatment of employees and applicants for employment are free of such discrimination.

2. Contractor shall comply with the provisions of the Fair Employment and Housing Act (Gov. Code, § 12900 et seq.), the regulations promulgated thereunder (Cal. Code Regs., tit. 2, § 11000 et seq.), the provisions of Article 9.5, Chapter 1, Part 1, Division 3, Title 2 of the Government Code (Gov. Code, §§ 11135- 11139.8), and the regulations or standards adopted by the awarding state agency to implement such article.

3. Contractor shall permit access by representatives of the Civil Rights Department and the awarding state agency upon reasonable notice at any time during the normal business hours, but in no case less than 24 hours' notice, to such of its books, records, accounts, and all other sources of information and its facilities as said Department or Agency shall require to ascertain compliance with this clause.

4. Contractor and its subcontractors shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other agreement.

5. Contractor shall include the nondiscrimination and compliance provisions of this clause in all subcontracts to perform work under the contract.

SECTION 00 85 00

DRAWINGS AND SPECIFICATIONS

1. **COORDINATION OF DRAWINGS AND SPECIFICATIONS:** Figured dimensions on the drawings shall govern, but Work not dimensioned shall be as directed. Work not particularly shown or specified shall be the same as similar parts that are shown or specified or as directed. Full-sized details shall take precedence over scale drawings as to shape and details of construction. Should a conflict occur between the drawings and specifications, the costlier and/or stringent material and method of construction shall be used. Scale drawings, full-sized details and specifications are intended to be fully cooperative and to agree but should any discrepancy or apparent difference occur between drawings and specifications or should errors affect the Work, Contractor shall notify the County at once by means of a **Request for Information/Interpretation (RFI)**. If Contractor proceeds with the Work affected without instructions from the County, Contractor shall make good any resultant damage or defect. All misunderstandings of drawings and specifications shall be clarified by the County, whose decision shall be final. Any Work called for by the drawings and not mentioned in the specifications, or vice versa, is to be furnished as though fully set forth by both. Where not specifically stated otherwise, all Work and materials necessary for each unit of construction, including special construction for any specific brand or shape of materials called for, even though only briefly mentioned or indicated, shall be furnished and installed fully and completely, including, but not limited to, manufacturer's instructions and/or recommendations, as part of this Contract.

2. **FURNISHING SUPPLEMENTAL DETAILS:** The Contractor may request and/or the County may independently furnish details to fully explain the Work and the same shall be considered a part of this Contract. If, in the opinion of Contractor, any details are more elaborate than warranted, written notice thereof must be given to the County within five (5) days of receipt of the supplemental details. The County will then consider that notice as a Claim and, if determined by the County as justified, the drawings will be amended or the extra Work authorized in accordance with the Change Order provisions of the General Conditions.

3. **TESTING SAMPLES:** The costs of testing samples will be borne by the County except where otherwise specified in this Contract, or where retests or additional tests are required to ascertain conformance with the plans and specifications. All said laboratory tests and additional tests shall be made by bureaus, laboratories or agencies approved by the County and all costs of said retests and/or additional tests shall be borne by Contractor, and said tests shall be paid for by the County but the amount paid shall be deducted from the Contract price. Examples of such additional tests are: Tests of material substituted for previously accepted materials, retests made necessary by the failure of materials to comply with the requirements of the specifications, and load tests necessary because certain portions of the structures have not fully met specification or plan requirements. All samples and specimens for testing shall be selected by the inspector or by the testing laboratory, but not by the Contractor. The Contractor shall, at its own expense, furnish, package, mark and deliver all samples to be tested, when so directed by the inspector, testing laboratory or as otherwise required by the specifications. Delivery of samples to the testing laboratory shall be made in ample time to allow tests to be made without delaying construction. No extra time will be allowed for the completion of the Work by reason of delay in testing samples. The Contractor shall allow free access at all times to the representatives of the testing laboratory to the sources from which samples are taken. All test reports shall be sent to all parties designated by the County.

END OF SECTION

SECTION 01 01 00

SUMMARY OF WORK

PART 1 GENERAL

1.1 GENERAL

A. Project Identification: ARROYO GRANDE LIBRARY REMODEL #320196.

B. Project Location: 800 W Branch Street, Arroyo Grande, CA 93420

C. Project Consultant Architect: Reiss Design Studio, PC.

1.2 WORK COVERED BY THE CONTRACT DOCUMENTS

A. Project Summary: The renovation and addition to the Arroyo Grande Library. The project includes the renovation of 11967 SF and the addition of 760 SF. Restrooms will be remodeled to comply with accessibility and fixture quantity requirements. A new children's restroom will be added. The second floor remains without modification to the existing use or design, so access improvements to the existing stairs are not necessary. The entire library portion of the larger building will receive a new commercial fire sprinkler system and a 2-hour fire wall will separate the library portion from the remainder of the larger building. The existing covered porch will be partially infilled to create new interior area. The County of San Luis Obispo is the jurisdiction in charge of review on all items of this submittal except fire as that will be reviewed by the City of Arroyo Grande. The scope of work is described in these Specifications and in Project Plans. Refer to Section 00 11 16 Notice to Bidders, 00 21 13 Description of Work for Base Bid, and 01 23 00 for a list of Alternate Bids for the project.

1.3 WORK NOT COVERED

A. Except for such auxiliary work as is shown or specified as a part of the construction on the plans and/or/ specifications, the following work is NOT included in this Contract:

1. Any work shown but marked "NIC" (not in contract), "OPOI" (owner provided, owner installed)or otherwise designated to be done by others.

1.4 PARTICULAR PROJECT REQUIREMENTS

A. Existing site conditions and restrictions: Adjacent Regional Center will remain operational during this project.

B. Parking lot improvements at the facility were recently completed under San Luis Obispo County Public Work's annual blanket maintenance permit: CALT2023-00008. Parking lot improvements shall be protected in place and contractor shall be required to make any and all necessary repairs to damage caused by the contractor.

C. Prior hazardous waste or asbestos work by Owner or others: Hazardous Materials Report are included in the project documents appendices

D. Pre-purchased and pre-ordered items:

1. Owner-purchased, Owner-installed items:
    a. AMH (Automated Materials Handling unit)
    b. Book RFID Alarm at Entry
    c. Coffee Vending Machine
    d. TVs
    e. Bookcases
    f. Furniture

2. Owner-purchased, Contractor-installed items: none at this time

E. USGBC LEED certification has been reviewed for attainability and has been determined to be unattainable. However, material and equipment selections, green measures, energy compliance, and recycling have been integrated into the project.

F. Codes: Comply with applicable codes and regulations of authorities having jurisdiction. Note that the fire approval will be via the City of Arroyo Grande, but the remainder of the permit review/approval will be via the County of San Luis Obispo. Submit copies of inspection reports, notices and similar communications to County Representative.

G. Dimensions: Verify dimensions indicated on drawings with field dimensions before fabrication or ordering of materials. Do not scale drawings.

H. Existing Conditions: Notify County Representative of existing conditions differing from those indicated on the drawings. Do not remove or alter structural components without prior written approval.

I. Coordination:

1. Coordinate the work of all trades.
2. Prepare coordination drawings for areas above ceilings where close tolerances are required between building elements and mechanical, electrical, and fire sprinkler work.
3. Verify location of utilities and existing conditions.

J. Installation Requirements, General:

1. Inspect substrates and report unsatisfactory conditions in writing.
2. Do not proceed until unsatisfactory conditions have been corrected.
3. Take field measurements prior to fabrication where practical. Form to required shapes and sizes with true edges, lines and angles. Provide inserts and templates as needed for work of other trades.
4. Install materials in exact accordance with manufacturer's instructions and approved submittals.
5. Install materials in proper relation with adjacent construction and with proper appearance.
6. Restore units damaged during installation. Replace units which cannot be restored at no additional expense to the Owner.
7. Refer to additional installation requirements and tolerances specified under individual specification sections.

K. Existing Construction: Maintain existing building in a weathertight condition. Repair damage caused by construction operations. Protect building and its occupants.

L. Intent: Drawings and specifications are intended to provide the basis for proper completion of the work suitable for the intended use of the Owner. Anything not expressly set forth but which is reasonable implied or necessary for proper performance of the project shall be included.

1.5 CONTRACTOR'S SETS OF PROJECT PLANS AND PROJECT MANUALS

A. County Furnished Drawings and Project Manuals: Upon award of Contract, the County will provide a single digital copy (.pdf format) and a single paper copy of Drawings, Project Manuals and Addenda for the Contractor to use.

B. Printed Sets Furnished at Contractor's Expense: Printed sets of Drawings, Project Manuals and Addenda can be furnished upon request. Contractor will be responsible for costs of printing and delivery of all printed sets requested. Partial sets will not be available.

1.6 SEQUENCE OF CONSTRUCTION OPERATIONS

A. Before starting construction operations, Contractor shall confer with the County to review sequence of construction operations.

B. Prior to commencement of work and within seven (7) calendar days of Notice to Proceed, Contractor is responsible for verifying and confirming, with the County Representative in writing, the existing grades, elevations and conditions of the site. Any discrepancies between existing conditions and the contract documents must be brought to the County's attention during that time frame.

C. Contractor shall prepare schedules a s set forth in Contract documents.

1.7 HOURS OF WORK

A. Contractor shall perform Work of this Contract on normal workdays and within the work hours; 7:00am to 6:00 pm. After hours work and work on Saturdays, Sundays, and holidays, may be permitted if approval is received from the County at least three (3) working days in advance.

1.8 SITE CONDITIONS AND REQUIREMENTS

A. Contractor shall meet the requirements of the project BMP's and continuously keep drainage facilities, walks, and paved areas clean and free of mud and dirt, obstacles, etc. so that normal drainage and pedestrian and vehicular travel may be maintained.

1.9 EXCAVATIONS OR TRENCHING FOR UNDERGROUND UTILITIES

A. Time intervals between excavation or trenching and installation of conduit or piping or other work concerned, and backfilling operations shall be kept to absolute minimum.

B. Excavations or trenching crossing roadways, walks, or other traffic ways shall be provided with traffic bearing steel plate or wood planking temporary covers, barricades, signs; as most suitable.

C. Contractor shall conduct operations on the basis that underground installations exist

which are not indicated on the Contract Drawings. Refer to the following Paragraph 1.12 for additional requirements.

1.10 PROTECTION OF EXISTING STRUCTURES AND UTILITIES

A. Damage to existing improvements caused by Contractor's operations, either on-site or on adjacent sites, shall be repaired to restore damaged items to their original condition. Cost of such repair shall be borne entirely by Contractor.

B. Drawings may indicate existing structures, drainage lines, water, gas, electrical and other similar items and utilities which are known.

C. Locate and confirm known existing structures and utilities before proceeding with operations, which may damage same. Maintain markings in service, except as otherwise specified, provide protection and repair damage to them caused by the Work at no increase in Contract price.

D. Additional utilities whose locations are unknown to the County may exist. Contractor shall be alert to their existence. If encountered, immediately report to the County for disposition of same. Adjust improvements around existing features.

1.11 CONTRACTOR USE OF PREMISES

A. Use of the Site: Limit use of the premises to work in areas indicated. Confine operations to areas within contract limits indicated. Do not disturb portions of the site beyond the areas in which the Work is indicated.

1. Driveways and Entrances: Keep driveways, parking areas, loading areas, and entrances serving premises clear and available to Owner, Owner's employees, and emergency vehicles at all times. Do not use these areas for parking or storage of materials. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.
2. Heavy Use Times: During times of expected heavy use, as dictated by the Owner, the contractor shall pay special attention to the coordination of efforts so as to not hamper the flow of pedestrians and/or vehicular traffic into and out of the County property. The safety and security of the public is of the utmost importance during those times and is to be maintained continuously. Expected heavy traffic times include, but are not limited to:
    - Weekends, community special events

B. Ownership of Property: Do not perform work, disturb or trespass upon properties not possessed by the Owner.

1.12 OWNER'S OCCUPANCY REQUIREMENTS

A. Owner Occupancy: Cooperate with Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with Owner's day-to-day operations.

1. Maintain access to existing walkways, and other adjacent occupied or used facilities. Do not close or obstruct walkways, or other occupied or used facilities without written permission from Owner and authorities having jurisdiction.
2. Provide not less than 72 hours' notice to Owner of activities that will affect Owner's operations.

B. Owner Occupancy of Completed Areas of Construction: Owner reserves the right to occupy and to place and install equipment in completed areas of building, before Substantial Completion, provided such occupancy does not interfere with completion of the Work. Such placement of equipment and partial occupancy shall not constitute acceptance of the total Work.

1. County Representative will prepare a Certificate of Substantial Completion for each specific portion of the Work to be occupied before Owner occupancy.
2. Obtain a Certificate of Occupancy from authorities having jurisdiction before Owner occupancy.
3. Before partial Owner occupancy, mechanical and electrical systems shall be fully operational, and required tests and inspections shall be successfully completed. On occupancy, Owner will operate and maintain mechanical and electrical systems serving occupied portions of building.
4. On occupancy, Owner will assume responsibility for maintenance and custodial service for occupied portions of building.

1.13 WORK RESTRICTIONS

A. On-Site Work Hours:

1. Work shall be generally performed during normal business working hours of 7 a.m. to 6:00 p.m., Monday through Friday, except otherwise indicated.
2. Contractor must leave site in safe condition each day.

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 County Representative not less than two (2) days in advance of proposed utility interruptions.
2. Do not proceed with utility interruptions without County Representative’s written permission.

1.14 SPECIFICATION FORMATS AND CONVENTIONS

A. Specification Format: The Specifications are organized into Divisions and Sections using the 50-division format and CSI's "MasterFormat 2020" 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. 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.

1.15 DEFERRED APPROVALS (WHEN NEEDED)

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.

C. Deferred Approvals. Only where a portion of the construction cannot be adequately detailed on the approved plans because of variations in product design and/or manufacturer, the approval of plans for such portion, when specifically accepted by Agency Having Jurisdiction (AHJ), may be deferred until the material suppliers are selected provided the following conditions are met:

1. The project plans clearly indicate that a deferred approval by Agency Having Jurisdiction (AHJ) is required for the indicated portions of the work prior to fabrication and installation.
2. The project plans and specifications adequately describe the performance and loading criteria for such work.
3. A County Representative or registered engineer stamps and signs the plans and specifications for the deferred approval item. The County Representative or engineer in general responsible charge of the design of the project shall submit the plans and specifications for the deferred approval item to the enforcement agency, with notation indicating that the deferred approval documents have been found to be in general conformance with the design of the building.
4. Fabrication of deferred approval items shall not begin with out first obtaining the

approval of plans and specifications by Agency Having Jurisdiction (AHJ).

D. Deferred Approval Submittals, General:

1. Submit initial deferred approval submittal to County Representative within 35 calendar days from the date of issuance of Notice to Proceed, and before any materials are delivered to the job site. Contractor is solely responsible for obtaining all necessary approvals. Do not commence installation of any deferred approval item until all approvals have been obtained.
2. Product Data: Product data: Submit manufacturer's specifications and certified test reports made by an independent testing organization for each type and class of material to show compliance with code requirements and gain approval of Agency Having Jurisdiction (AHJ).
3. Shop Drawings: Submit complete shop drawings including dimensioned plans, elevations, and all details of typical sections and connections. Shop drawings shall show design loads and all details of the installation. Title sheet of shop drawings shall list testing requirements and shall state that licensed engineer shall review and certify the completed installation is in accordance with the approved shop drawings. Shop drawings shall be stamped, dated and signed by professional engineer licensed in the State of California as evidence of his or her responsibility for the work.
4. Shop drawings:
   a. Format: 30' x 42" sheet format with border and title block identifying, at a minimum, the project name, project number, project location, date, contractor and structural engineer of record.
   b. 1 set of reproducible shop drawings for each submittal review.
   c. 1 set of reproducible shop drawings for each plan check review.
   d. 1 set of reproducible shop drawings approved by Agency Having Jurisdiction (AHJ).
5. Calculations: Submit calculations prepared by a professional engineer licensed in the State of California. Engineer shall sign, date and stamp calculations as evidence of his or her responsibility for the work.
6. Submittals shall be approved first by the County Representative, then by the Agency Having Jurisdiction (AHJ).
7. See additional requirements in Division 1 Section "Submittal Procedures".

1.16 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: 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. If classes are in session at any point during the progress of the Work, and, in the Owner's reasonable discretion, the noise from any

Work disrupts or disturbs the students or faculty or the normal operation of the Academy, at the Owner's request, the Contractor shall schedule the performance of all such Work around normal hours or make other arrangements so that the Work does not cause such disruption or disturbance. In no event shall such arrangements result in adjustment of the Contract Price or the Contract Time.

C. Dust Control. The Contractor shall be fully and solely responsible for maintaining and upkeeping 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, particularly to Owner's personnel. 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. Additionally, the Contractor shall be the sole party responsible to regularly and routinely clean up and remove any and all deposits of 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. Contractor shall replace any damages property or part thereof and professionally clean any and all items that become covered or partially covered to any degree by dust or other airborne elements.

1.17 HAZARDOUS MATERIALS REMOVAL

A. Refer to Appendix E – Environmental Removal (Lead/Asbestos) for toxicity reports with information on the location of lead and asbestos-containing materials in the existing facility and the recommended solution to mitigate any potential hazards emanating from contact with the materials.

B. It is the Contractor's responsibility to handle and dispose of hazardous materials in accordance with all local, State and Federal regulations. If failure to comply with these regulations results in a site or worker contamination, the Contractor will be held solely responsible for all costs involved in any required corrective action.

C. Lead-based paint should be removed only by professionals trained in hazardous material removal. A trained professional must follow very detailed procedures to minimize, control and contain lead dust generated by the removal process. Provide a General Superintendent whenever Contractor's personnel are on site who is experienced in administration and supervision of lead-related construction projects including work practices, protective measures for building and personnel, disposal procedures, etc. This person is the Contractor's Representative responsible for compliance with all applicable federal, state and local regulations, particularly those relating to lead-containing materials. Submit certificate of completion of approved lead-related training course. Lead control work plan shall include, but not be limited to the following:

1. The room should be sealed from the rest of the building. All furniture, carpets and drapes should be removed.
2. Workers should wear respirators designed to avoid inhaling lead.
3. No eating or drinking should be allowed in the work area. All food and eating utensils should be removed from the room. All cabinets as well as food contact surfaces should be covered and sealed.
4. Occupants should be kept out of the room until the job is completed.
5. Clothing worn in the room should be disposed of after working. The work clothing should not be worn in other areas of the building.
6. Debris should be cleaned up using special vacuum cleaners with HEPA (high efficiency particle absorption) filters. A wet mop should be used after vacuuming.

D. Asbestos-containing material shall be removed prior to demolition, renovation, or any other activity which would disturb the material by an asbestos abatement contractor that is licensed by the State of California. Do not sand, saw, or abrade the material. If additional suspect materials are discovered during demolition or renovation activities, the material should be assumed to contain asbestos until sampling proves otherwise.

E. Contractor shall submit an Asbestos Hazard Abatement Plan outlining the safety precautions and work procedures to be used in the removal of materials containing asbestos. The plan shall be forwarded to the County for final approval at least ten (10) days prior to beginning abatement activities. The plan shall include but not be limited to the detailed description of personal protective equipment and work practices to be used including, but not limited to, respiratory protection, type of whole-body protection, the location of asbestos control areas including clean and dirty areas, buffer zones, showers, storage areas, change rooms, removal method, interface of trades involved in the construction, sequencing of asbestos related work, disposal plan, type of wetting agent and asbestos encapsulant to be used, locations of local exhaust equipment, planned air sampling strategies, and a detailed description of the method to be employed in order to control environmental pollution. The plan shall also include both fire and medical emergency response plans.

F. Hazardous materials and related debris must be disposed of in accordance with all applicable federal, state and local regulations governing such disposal for the rehabilitation work.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION (Not Used)

END OF SECTION

SECTION 01 05 00
FIELD ENGINEERING

PART 1 GENERAL

1. SECTION INCLUDES

A. Provision of surveying to lay out Work.

2. QUALITY ASSURANCE

A. The Contractor is solely responsible for the complete, timely and accurate layout of the Work, including, but not necessarily limited to, horizontal and vertical control and dimensional coordination as necessary to execute the Work in accordance with the Contract Documents.

B. Civil Engineers or Land Surveyors retained by the Contractor agree to cooperate with the County Representative, if necessary, to accommodate any discovered variations or deviations from the Contract Documents so that the progress of the Work is not adversely affected.

C. Civil Engineers or Land Surveyors involved in field engineering shall be currently registered or licensed in California.

3. SUBMITTALS

A. Certification signed by the Civil Engineer or Land Surveyor that the elevations and locations of the Work are in conformance with the Contract Documents, or documenting variations therefrom, shall be submitted in accordance with the project close-out provisions of Section 01 70 00.

B. Prior to construction, submit the following: name, address, and license of surveyor and professional engineer to County Representative.

C. Prepare survey notes and records for staking and layout; submit copies of notes, drawings, and calculations to County Representative.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION

1. PREPARATION

A. Verify locations of survey control points prior to starting work. Promptly notify the County Representative of any discrepancies discovered.

2. SURVEY REFERENCE POINTS

A. Existing basic horizontal and vertical control points for the Project are indicated on the plans.

B. Locate and protect control points prior to starting site work and preserve permanent reference points during construction. Make no changes or relocations without prior notice to the County Representative.

C. Promptly report to the County Representative when a control or reference point is lost or destroyed or requires relocation because of necessary changes in grades, locations or other reasons. Replace lost or destroyed control or reference points based on original survey control. The Contractor shall bear the expense of replacing any control or reference points disturbed without the permission of the County.

3. LAYOUT

A. Contractor shall provide all surveying required for accurate location of the Work and shall retain and pay expenses for Civil Engineer or Land Surveyor to do actual required survey work.

B. Maintain a complete, accurate log of control and survey work as it progresses.

C. Establish a minimum of one permanent benchmark on site, referenced to established control points.

D. Record location(s) of permanent benchmark(s), with horizontal and vertical data, on Record Drawings under provisions of Section 01 70 00.

E. Lay out necessary lines for various parts of the Work as shown or dimensioned on the Drawings, or as directed by the County Representative from established base lines and benchmarks.

F. Establish lines and levels, locate and lay out by instrumentation and similar appropriate means:

1. Existing known above and below grade utilities (identify, stake and flag).
2. Stakes for grading, cut and fill, utility locations, slopes and invert elevations.
3. Drainage system flow lines and component locations.

G. Periodically verify layout by same means.

H. After laying out the Work, inform workers and subcontractors accordingly.

I. On completion of foundation and major site improvements prepare "as-built" notes on a copy of the Record Drawings showing any dimensions, locations, angles, and elevations of construction which vary from those indicated in the Drawings, under provisions of Section 01 70 00.

END OF SECTION

SECTION 01 06 00

REGULATORY REQUIREMENTS

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Submittals
   2. Quality assurance
   3. Regulatory requirements
   4. Field quality control

B. Related sections:
   1. Section 00 70 00 – General Conditions
   2. Section 01 11 50 – Environmental Procedures
   3. Section 01 12 00 – Recycling
   4. Section 01 14 00 – Special Project Procedures
   5. Section 01 30 00 – Submittal Procedures

1.2 SUBMITTALS

A. Submit under provisions of Section 01 30 00.

B. Submit certification of inspection confirming approval by authority having jurisdiction when required by individual Section.

C. Where required by individual Sections, submit the following to the County's Construction Inspector for review before submitting to enforcing authorities. When submittal has been reviewed and found acceptable to County Representative, submit directly to enforcing authorities and obtain approval for installation.

   1. Shop drawings;
   2. Product data;
   3. Design data;
   4. Test Reports;
   5. Certificates;
   6. Manufacturer's instructions;
   7. Manufacturer's field reports;
   8. Operation and maintenance data;
   9. Guarantee;
   10. Other items indicated.

1.3 QUALITY ASSURANCE

A. Perform work in accordance with specific standards indicated. Maintain one copy of each document on site.

B. Contractor shall abide by all applicable codes, regulations, policies, and procedures as indicated on the plans and in the specifications or mandated by agencies having authority over this project.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION

3.1 FIELD QUALITY CONTROL

A. When required by individual Section, arrange for enforcing authority to witness indicated tests.

END OF SECTION

SECTION 01 11 50

ENVIRONMENTAL PROCEDURES

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes

1. Potential Pollutants.
2. Environmental Mitigation and Air Quality Management.
3. Erosion control.
4. Concrete waste management.
5. Vehicle and equipment fueling and maintenance.
6. Spill prevention and control.
7. Temporary containment removal.
8. Non-storm water management.

B. Related Sections

1. Refer to requirements of Division 00.
2. Section 01 12 00 - Recycling
3. Section 01 31 00 - Project Management and Coordination.
4. Section 01 50 00 - Temporary Facilities and Controls.

1.2 POTENTIAL POLLUTANTS

A. Identify potential pollutants that are used in the Work.

B. Certain potential pollutants are identified in Attachment A, immediately following this Section.

1.3 SUBMITTALS

A. Submit under provisions of Section 01 30 00.

B. Implementation Drawings: Indicate the areas of the construction site for storage of potential pollutants. Coordinate staging areas with the County to avoid conflicts with County operations.

C. Hazardous Material Clean Up and Solid Waste Management Data: If applicable list the employees trained in emergency spill cleanup procedures and indicate the training procedures for employees and subcontractors in spill prevention and cleanup and solid waste management.

Concrete Waste Management Data: Indicate concrete washout areas and the procedures to train employees and subcontractors in proper concrete waste management.

D. Vehicle and Equipment Fueling and Maintenance Data: Indicate fueling and maintenance areas and the procedures to train employees and subcontractors in proper fueling, spill prevention and clean up procedures, and maintenance.

E. Dust Control and Monitoring Plan. Provide a document that will indicate the contractor and subcontractors shall employ to eliminate or substantially minimize the generation of dust during construction for the life of the project. Plan shall incorporate the applicable air quality mitigation measures and any requirements for dust control of the San Luis Obispo Air Pollution Control District. Plan shall also describe site monitoring and dust control protocols during non-construction hours, weekends, and holidays to assure dust is controlled at all times for the duration of the project.

1.4 PRECONSTRUCTION CONFERENCE

A. In accordance with Section 01 31 00.

B. Review delivery routes, storage areas, spill prevention and clean up procedures, BMP's, and training procedures. Coordinate with County Representative.

1.5 DELIVERY, STORAGE AND HANDLING

A. Keep an accurate, current inventory of materials containing potential pollutants, delivered and stored onsite.

B. Use personnel trained in spill prevention and emergency spill clean-up procedures to unload and store materials containing potential pollutants.

C. Store construction raw materials containing potential pollutants off the ground in designated areas in secondary containment structures or surrounded by earth berms away from storm drain inlets, waterways, and drainage paths. Store chemicals in their original labeled containers. Cover the materials with plastic tarps when not in use.

1. Store hazardous waste and materials in sealed containers; protect from vandalism. Place in areas that will be paved and surround the areas with earth berms.
2. Store reactive, ignitable, or flammable liquids in accordance with fire codes.
3. Store materials in a covered area during wet weather.
4. Small amounts of material may be secondarily contained in "bus boy" trays or concrete mixing trays.

D. Remove and dispose of residual materials and contaminated soil after construction is complete.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION

3.1 ENVIRONMENTAL MANAGEMENT AND MITIGATION

A. Cultural Resources

1. If cultural resources are encountered during project grading, a qualified archaeologist or paleontologist shall be retained at the County's expense to temporarily halt or redirect construction equipment while resources are evaluated and appropriate recommendations made. Any measures to be addressed shall be in accordance with applicable County guidelines.

3.2 CONCRETE WASTE MANAGEMENT

A. Wash out concrete trucks in approved areas only. Locate washout area at least 50 feet from storm drains, open ditches, streams, streets, or water bodies. Prevent runoff from washout area.

B. Wash out wastes and allow to harden. Break the hardened concrete into pieces and dispose offsite.

C. Do not wash recently placed concrete unless runoff will be drained to a bermed or level area, away from water ways and storm drain inlets.

D. Do not dump excess concrete on-site, except in approved designated areas.

E. All waste management to be performed per County standards.

3.3 VEHICLE AND EQUIPMENT FUELING AND MAINTENANCE

A. Fuel vehicles and equipment at approved areas. Do not "top-off" fuel tanks.

B. Use personnel trained in emergency spill cleanup procedures to dispense fuel.

C. Regularly inspect onsite vehicles and equipment for leaks, and repair immediately. Do not allow leaking vehicles or equipment onsite.

D. Clean oil and grease build up from vehicles and equipment at approved areas.

E. Segregate and recycle wastes, such as greases, used oil, oil filters, anti-freeze, cleaning solutions, automotive batteries, hydraulic, and transmission fluids.

3.4 SPILL PREVENTION AND CONTROL

A. Use secondary containment devices such as drain pans or drop cloths at all areas when fueling, removing, or changing fluids.

B. Place a stockpile of spill cleanup materials where it will be readily accessible.

C. Use personnel trained in emergency spill clean-up procedures.

D. Clean up leaks and spills immediately, in accordance with waste management regulations.

E. Clean up spills on paved surfaces with minimal water usage. Clean small spills with cloths and larger spills with absorbent material. Immediately send used hazardous cleanup cloth material to a certified laundry or remove and dispose as hazardous waste, in accordance with waste management regulations.

F. Do not hose down or bury dry material spills.

3.5 TEMPORARY CONTAINMENT REMOVAL

A. Remove all temporary containment structures, devices and equipment when directed by County Representative. Clean and repair damage caused by installation and use of temporary work.

3.6 NON-STORM WATER MANAGEMENT

A. Minimize the use of water sprayed for dust control and irrigation, to avoid causing runoff and erosion.

B. Remove sediment from dewatering operations using sediment basins. Filter sediment from sediment basins with a sump pit and perforated standpipe, wrapped in filter fabric, or a floating suction hose.

C. Discharge water, used for flushing and disinfection, into onsite detention basins or temporary earthen basins.

D. Surround stockpiles of dirt with waddles and cover.

END OF SECTION

ATTACHMENT A FOLLOWS

SECTION 01 11 50 - ATTACHMENT A

PARTIAL LIST OF POTENTIAL POLLUTANTS

1.1 Contractor shall identify the pollutants present during construction and take the necessary measures to restrict their entry into the natural drainage system, based on the National Pollutant Discharge Elimination System (NPDES) applicable laws, codes and regulations.

1.2 Potential pollutants that may be used at the site and that have the potential to enter the storm water drainage system are included in the list below. This is not intended to be a complete list of categories, products and pollutants.

1.3 CONSTRUCTION SITE POTENTIAL POLLUTANTS

CATEGORY	PRODUCT, ACTIVITY	POLLUTANTS
Adhesives	Adhesives, Glues Resins, Epoxy Synthetics Calks, Sealers, Putty, Sealing Agents Coal Tars (Naptha, Pitch)	Phenolics, Formaldehydes Phenolics, Formaldehydes Asbestos, Phenolics, Formaldehydes Benzene, Phenols, Naphthalene
Cleaners	Polishes, (Metal, Ceramic, Tile) Etching Agents Cleaners, Ammonia, Lye, Caustic Sodas Bleaching Agents Chromate Salts	Metals Metals Acidity/Alkalinity Acidity/Alkalinity Chromium
Plumbing	Solder (Lead, Tin), Flux (Zinc Chloride) Pipe Fitting (Cut Shavings) Galvanized Metals	Lead, Copper, Zinc, Tin Copper Zinc
Electrical	Wiring	Copper, Lead
Painting	Paint Thinner, Acetone, MEK, Stripper Paints, Lacquers, Varnish, Enamels Turpentine, Gum Spirit, Solvents Sanding, Stripping Paints (Pigments), Dyes	VOCs Metals, Phenolics, Mineral Spirits VOCs Metals
Woods	Sawdust Particle Board Dusts Treated Woods	BOD Formaldehyde Copper, Creosote
Floors and Walls	Flashing Drywall Tile Cutting (Ceramic Dusts)	Copper, Aluminum Dusts Minerals
Remodeling and Demolition	Insulation Venting Systems	Asbestos Aluminum, Zinc

Air Conditioning and Heating	Insulation Coolant Reservoirs	Asbestos Freon
Yard O&M	Vehicle and Machinery Maintenance Gasoline, Oils, Additives Marking Paints (Sprays) Grading, Earth Moving Portable Toilets Fire Hazard Control (Herbicides) Wash Waters	Oils and grease, Coolants Benzene & Derivatives, Oils & Grease Vinyl Chloride, Metals Erosion (Sediments) BOD, Disinfectants (Spills) Sodium Arsenite, Dinitro Rodenticides, Insecticides, Herbicides, Concrete, Oils, Greases
Landscaping and Earthmoving	Planting, Plant Maintenance Excavation, Tilling Solid Wastes (Trees, Shrubs) Exposing Natural Lime or Other Mineral Deposits Soils Additives Revegetation of Graded Areas	Pesticides, Herbicides, Nutrients Erosion (Sediments) BOD Acidity/Alkalinity, Metals Aluminum Sulfate, Sulfur Fertilizers
Materials Storage	Waste Storage (Used Oils, Solvents, Etc.) Hazardous Waste Containment Raw Material Piles	Spills, Leaks Spills, Leaks Dusts, Sediments

Note: VOC = Volatile Organic Compounds.
BOD = Biochemical Oxygen Demand due to the use of oxygen by decomposing materials.

END OF ATTACHMENT A

SECTION 01 12 00

RECYCLING

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

1. Requirements to comply with all Sections of the San Luis Obispo County Construction and Demolition Debris Recycling Ordinance for County Sponsored Construction Projects.

B. Related Sections:

1. Section 01 01 00 - Summary of Work
2. Section 01 30 00 - Submittal Procedures
3. Section 01 70 00 - Closeout Requirements
4. Section 01 74 00 - Cleaning

1.2 GENERAL

A. Reference Title 19 of the San Luis Obispo County Code, Chapter 8, Green Building Standards, Section 19.08.060 – Additional requirements, (a) Waste Recycling. See the following links to San Luis Obispo County Building and Construction Ordinance, under the 'Ordinances' subdirectory:

http://www.slocounty.ca.gov/Departments/Planning-Building/Forms-Documents/Ordinances.aspx

and the Public Works Construction Contract Recycling Requirements:

https://www.slocounty.ca.gov/departments/public-works/forms-documents/design/construction-contract-appendices

B. The Contractor shall make every *effort* to provide opportunities for the reuse, recycling or diversion of any construction waste or by-products, including but not limited to:

1. Demolition proceeds.
2. Recyclable glass, metal, paper, or plastic containers and wrappers.
3. Lumber end cuts, scrap, dunnage or rejects.
4. Packing crates, boxes, or skids.
5. Miscellaneous clean discards, over-orders, and scrap products.

C. The Contractor shall register the construction site in the local curbside recycling program and use provided containers for all acceptable glass, metal, paper, or plastic products.

D. The Contractor shall complete and submit a Construction Waste Management Plan (CWMP)

within 30 days of the issuance of a Notice to Proceed.

E. The Contractor shall submit periodic Waste Disposal Reports with each application for payment. All landfill disposal, recycling, salvage and reuse must be reported regardless of to whom the cost or savings accrues. Use the same units of measure on all reports.

F. The Contractor shall submit documentation that the Diversion Requirements have been met prior to issuance of a Notice of Completion.

G. Civil Penalties will be assessed to the Contractor if documentation is not submitted or if Diversion Requirements are not met as established in the County Ordinance.

H. Regulatory Requirements: Contractor is responsible for knowing and complying with regulatory requirements, including but not limited to Federal, State and local requirements, pertaining to legal disposal of all construction and demolition waste materials.

1.3 SUBMITTALS AND PROCEDURES

A. Construction Waste Management Plan: A Construction Waste Management Plan (CWMP) shall be completed and submitted on an approved Recycling Plan form and shall indicate the following:

1. Project Location, Project Number and Project Contractor
2. Identification of the designated on-site person or persons responsible for instructing workers and overseeing and documenting results of the CWMP.
3. Analysis of the trash and waste projected to be generated during the entire project construction cycle, including types and quantities.
4. Landfill Options: The name, address, and telephone number of the landfill(s) where trash/waste will be disposed of, the applicable landfill tipping fee(s), and the projected cost of disposing of all project trash/waste in the landfill(s).
5. Landfill Alternatives: List all waste materials that will be diverted from landfills by reuse, salvage, or recycling The maximum volume or weight of such materials that can feasibly be diverted to reuse or recycling
6. Meetings: Describe regular meetings to be held to address waste prevention, reduction, recycling, salvage, reuse, and disposal.
7. Materials Handling Procedures: Describe the means by which materials to be diverted from landfills will be protected from contamination and prepared for acceptance by designated facilities; including separation procedures for recyclables, storage, and packaging.
8. Transportation: Identify the destination and means of transportation of materials to be recycled;

   i.e. whether materials will be site-separated and self-hauled to designated centers, or whether mixed materials will be collected by a waste hauler. The vendor or facility that the Contractor proposes to use to collect or receive that material.

B. Calculating Volume and Weight of Debris: In estimating the volume or weight of materials identified in the Recycling Plan, the Contractor shall use the standardized Conversion Rates established by the County Public Works Director for this purpose and revised from time to time.

C. Deconstruction: Projects involving the removal of all or part of an existing structure shall be deconstructed to the maximum extent feasible. The materials generated thereby shall be available for salvage.

D. Approval of CWMP: No County-sponsored project shall proceed unless the CWMP Compliance Official has first approved the CWMP. The CWMP compliance Official shall only approve a CWMP if all of the following conditions have been met:

1. The CWMP indicates that at least 75% by weight of all construction and Demolition debris generated by the project will be diverted.

E. If the CWMP Compliance Official determines that these conditions have been met, the Official shall mark the CWMP 'Approved", return a copy of the Plan to the Contractor, and notify the Department of Public Works' Project Coordinator that the CWMP has been approved.

F. If the CWMP Compliance Official determines that the CWMP is incomplete or fails to indicate that at least 75% by weight of all Construction and Demolition debris generated by the project will be reused or recycled, the Officer shall either:

1. Return the CWMP to the Contractor marked 'Denied', including a document of reasons, and so notify the Department of Public Works' Project Coordinator.
2. Return the CWMP to the Contractor marked, 'Further Explanation Required'.

G. Documentation:

1. Waste Disposal Reports: Submit at specified intervals, with details of quantities of trash and waste, means of disposal or reuse, and costs; show both totals to date and since last report.

a. Submit updated Report with each Application for Progress Payment; failure to submit Report will delay payment.
b. Submit Report on a form acceptable to County.
c. Landfill Disposal: Include the following information:

1) Identification of material.
2) Amount, in tons or cubic yards, of trash/waste material from the project disposed in landfills.
3) Identity of landfills, total amount of tipping fees paid to landfill, and total disposal cost.
4) Include manifests, weight tickets, receipts, and invoices as evidence of quantity and cost.

d. Recycled and Salvaged Materials: Include the following information for each:

1) Identification of material, including those retrieved by installer for use on other projects.
2) Amount, in tons or cubic yards, date removed from the project site, and receiving party.
3) Transportation cost, amount paid or received for the material, and the net total cost or savings of salvage or recycling each material.
4) Include manifests, weight tickets, receipts, and invoices as evidence of quantity and cost.
5) Certification by receiving party that materials will not be disposed of in landfills or by incineration.

e. Material Reused on Project: Include the following information for each:

1) Identification of material and how it was used in the project.
2) Amount, in tons or cubic yards.
3) Include weight tickets as evidence of quantity.

H. Other Disposal Methods: Include information similar to that described above, as appropriate to disposal method.

1. As part of Closeout procedures and prior to receiving Notice of Completion for the project, the Contractor shall submit to the CWMP Compliance Official the CWMP Disposal Report and documentation that the Diversion Requirement for the project has been met. The Diversion Requirement is satisfied if the contractor has diverted at least 70% of the total Construction And Demolition debris generated by the project *via* reuse or recycling, unless an Exemption has been granted pursuant to 8.12.475 of the Ordinance, in which case the Diversion Requirement shall be the maximum feasible diversion rate established by the Waste Management Plan Compliance Official for the project. The Disposal Report documentation shall include all of the following:

a. All receipts from the vendor or facility that collected or received each material showing the actual weight or volume of that material.
b. A copy of the previously approved CWMP for the project with a completed Disposal Report section showing the actual volume or weight of each material diverted and landfilled.
c. Any additional information the Contractor believes is relevant to determining its efforts to comply in good faith with the County's Ordinance.

I. Weighing of Wastes: The Contractor shall make reasonable efforts to ensure that all Construction and Demolition debris diverted or landfilled is measured and recorded using the most accurate method of measurement available. To the extent practical, all construction and Demolition debris shall be measured by weight on scales. Such scales shall be in compliance with all regulatory requirements for accuracy and maintenance. For Construction and Demolition debris for which weighing is not practical due to small size or other considerations, a volumetric measurement shall be used.

J. Determination of Compliance: The Recycling Plan Compliance Official shall review the documentation and determine whether the Contractor has complied with the Diversion Requirement as follows:

1. Full Compliance: If the Official determines that the Contractor has fully complied with the documentation and Diversion Requirements applicable to the project, the Disposal Report shall be approved and the Contractor and the Department of Public Works' Project Coordinator shall be informed.
2. Substantial Compliance: If the Official determines that the Diversion Requirement has not been achieved, the Official shall determine whether the Contractor has made a good faith effort and is in substantial compliance with the County's Ordinance. In making this determination, the Official shall consider the availability of markets for the Construction and Demolition debris landfilled, the size of the project, and the documented efforts of the Contractor to divert Construction and Demolition debris. If the Official determines that the Contractor has made a good faith effort to comply with the Ordinance, the Disposal Report shall be approved and the Contractor and the Department of Public Works' Project Coordinator shall be informed.
3. Non-Compliance: If the Official determines that the Contractor is not in Substantial Compliance with the County Ordinance or if the Contractor failed to submit proper documentation, the Contractor shall be assessed and be responsible for any civil penalty arising from the project's failure to comply with the Ordinance. The penalty shall be calculated as 2% of the total Project Valuation or Contract Award Amount and shall be paid within 30 days of the finding on non- compliance by the Official. The civil penalty shall be payable to the County of San Luis Obispo and sent to the Public Works Director. Interest shall accrue on any penalty at the legal rate of interest from the date of imposition by the Official per Section 8.12.485 of the Ordinance.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION

3.1 SUBMITTAL OF WASTE MANAGEMENT PLAN FORM

A. Contractor shall complete and submit CWMP per instructions in Part 1 - General and per the County's Recycling Ordinance for County Sponsored Projects. County Recycling Ordinance, instructions and forms are available at:

http://www.slocounty.ca.gov/Departments/Planning-Building/Forms-Documents/Ordinances.aspx

3.2 RECYCLING/DIVERSION EFFORTS DURING DEMOLITION/CONSTRUCTION ACTIVITIES

A. Contractor shall make a good faith effort to achieve to comply with County's Recycling Ordinance and shall accurately weigh materials and provide proper documentation per the Ordinance as outlined above in Part 1 - General.

B. Communication: Distribute copies of the CWMP to jobsite foremen, each subcontractor, the

County, and the County Representative.

C. Instruction: Provide on-site instruction of appropriate separation, handling, and recycling, salvage, reuse, and return methods to be used by all parties at the appropriate stages of the project and in compliance with the CWMP.

D. Waste management and diversion goals may be achieved by the following methods:

1. Roll off waste containers: Contractor may hire a company which provides a roll off waste containers which is then sorted off site.
2. On site sorting: Contractor may sort waste on site prior to off-haul.

3.3 SUBMITTAL OF CONSTRUCTION WASTE MANAGEMENT PLAN DISPOSAL REPORT

A. Contractor shall complete and Submit Construction Waste Management Plan Disposal Report per instructions in Part1 -General and per the County's Recycling Ordinance for County Sponsored Projects prior to receiving a Notice of Completion.

3.4 PAYMENT OF PENALTIES, IF REQUIRED

A. If the project is found to be non-compliant with the County's Recycling Ordinance for County Sponsored Projects, Contractor shall promptly pay penalties as described in Part 1 - General per the Ordinance.

Requirements for Managing Project Waste

Under WASTE MANAGEMENT in your Construction Permit Application you must select either:

A) use an Integrated Waste Management Authority (IWMA)-certified construction and demolition waste recycling facility? or
B) use other recycling and disposal facilities?

Please select A or B on back of this form.

Your choice means:

A) use an IWMA-certified construction and demolition waste recycling facility. Check this if your construction and demolition waste is going to the following facilities.

C&D Recycling Facility at Cold Canyon Landfill	805-549-8332
C&D Recycling Facility at Chicago Grade Landfill	805-466-2985
North SLO County Recycling	805-434-0043
API (roll-off/debris box company)	805-928-8689
R&R (a roll-off/debris box company)	805-929-8000
Recycling Facility at the Paso Robles Landfill	805-238-2028
Santa Maria Transfer Station	805-922-9255
Bedford Enterprises/SMART	805-922-4977
Health Sanitation Service	805-922-2121

By using the above IWMA-certified recycling facilities for your construction and demolition (C&D) waste, you have met the requirement to recycle 70% of your waste. You can either hire a hauling company or haul your C&D waste yourself to these facilities. Call for rates and hours of operation.

B) use other recycling and disposal facilities. Check this if your C&D waste is NOT going to the C&D recycling facilities listed above. If you choose this option, before you FINAL THE WORK fill out an extra form (a Detailed Recycling Plan) that shows how you will recycle 70% of your C&D waste. The form is available from Architectural Services, Design Division (781-_____)

Receipts. With both Option A or Option B, at the end of your project you must submit all the original receipts from any recycling and/or disposal facility that received waste from your project. (Be sure that the receipts from Cold Canyon Landfill, Chicago Grade Landfill, Paso Robles Landfill and the Santa Maria Transfer Station indicate that you used the C&D recycling area.) Your receipts must be submitted and approved **before you can receive the Final Building Inspector Approval**. If you select Option B, before you receive the Final Inspector Approval you also need to fill out another part of the Detailed Recycling Plan that shows you recycled the required amount of project waste. Do **NOT** use a regularly scheduled garbage/recycling collection service because you will not have proper documentation for the amount of waste generated and where it went.

SLO Green Building Ordinance requires that you recycle **70%** (by weight) of the waste your construction or demolition project generates. Waste includes anything you discard from the site, such as wood scraps, cardboard, drywall, flashing, paint or other finishing products, tools, concrete, asphalt, plastic bags, remnants of insulation, etc. In addition, seventy percent of the total discards must be recycled if your project is a demolition project of 1,000 sq. ft or more.

Before you receive a construction permit you must tell the County how you will handle the project's waste stream. As noted above, there is a place to do this on the Construction Permit Application, or on the other side of this paper, or on the form on the web. Failure to achieve the recycling goal could result in delays in receiving Final Inspection Approval and result in a Code Enforcement Case against your property. Code Enforcement Fees must be paid before receiving Final Approval.

Dec 12

Project #/ Permit Number: _____-_____

Simplified Recycling Plan

Excerpt from the Construction Permit Application

WASTE MANAGEMENT

You need to review the Requirements for Managing Project Waste information on the back of this form and then check the box that fits your project. You must check one of the boxes prior to permit issuance. Note: IWMA means Integrated Waste Management Authority

Are you planning to

- ❑ A) use an IWMA-certified construction and demolition waste recycling facility? or
- ❑ B) use other recycling and disposal facilities?

If B is checked, you must fill out Sections 1 & 2 of a Detailed Recycling Plan form and have it approved prior to the permit being issued. For a copy of the Detailed Recycling Plan form, use the web: http://www.slocounty.ca.gov/planning/formslibrary.htm. or contact Building Div. (781-5628). For more information and a list of certified facilities read the ***Requirements for Managing Project Waste*** on the back of this form.

LEGAL DECLARATION

I, the owner of record of this property, or authorized agent, have accurately completed this form and declare that all statements herein are true. I acknowledge the responsibility for recycling my project's waste and the penalty for non-compliance. I agree to comply with the requirements of the State Green Code and SLO County's Green Ordinance

Property owner/Agent signature _____Date: _____

Name of IWMA certified construction and demolition waste recycling facility to be

Used for this project:_____

Prior to a construction and demolition, this form must be signed and emailed or faxed to:_____,

Architectural Services, Design Division
Department of Public Works
1050 Palm Street, Room 206
San Luis Obispo CA 93408

TO EXPEDITE THE PROCESSING OF YOUR RECYCLING PLAN, PLEASE EMAIL OR FAX IT TO ARCHITECTURAL SERVICES, DESIGN DIVISION.

Seven days prior to Final Inspection you must submit receipts from all of the recycling and landfill facilities that received waste from your project. Final Inspection approval will be delayed until the receipts are submitted and approved. Anticipate when you will need Final Inspection approval.

Dec 12

DETAILED RECYCLING PLAN & DISPOSAL REPORT

PLANNING & BUILDING DEPARTMENT • COUNTY OF SAN LUIS OBISPO
976 OSOS STREET • ROOM 200 • SAN LUIS OBISPO • CALIFORNIA 93408 • (805) 781-5600

SECTION 1. To be completed for all projects that do NOT use a certified recycling facility. Call 781-5628 for a list of certified facilities.

Application Number: PMT_____	Owner Name:
Site Address:	Owner Address:
APN:	Contractor Name:
Project Cost Estimate:	Contractor Address:
Square Footage:	Contractor Phone:
Garbage/Recycling Company:	Applicant Name:
Recycling Facility:	Applicant Signature:

SECTION 2. Recycling Plan – to be completed by all unincorporated county Project Applicants prior to the permit being issued unless an IWMA-Certified facility is used for recycling and disposal.

SECTION 3. Disposal Report –To be completed before Final Approval/Sign Off. The Disposal Report must be done for all finished projects not using an IWMA-Certified recycling facility. Fill in quantities below and attach all original disposal & recycling receipts.

Materials	**Before Construction** (Estimated Tons)		**After Construction** (Actual Tons)				**All disposal & recycling receipts must be submitted to Barry Tolle**
	To Landfill	To Recycling	Tons Disposed in Landfill	Recycling			
				On-Site Reuse	Off-Site Recycling	Total Recycled	
Land Clearing (brush, trees, etc.)							Tons Generated
Inerts (Concrete, soil, etc.)							
Drywall							
Metals							
Lumber							
Cardboard							Sum of Diverted Materials
Mixed Recyclables							
Trash							
Totals							Percent of Materials Diverted, Actual Diversion
Estimated % Diversion							

Official Use Only.		**Final Project Approval will be delayed if Section 3 is not completed and if receipts are not submitted**	**Official Use Only**	
Plan Approved			Balance	
Project Exempt			Disposal Report Approved	
Plan Denied			Disposal Report Denied	
Information Required			Information Required	
Date		Questions? Call 781-5628 for questions about certified recycling facilities.	Date	
Reviewed/Approved By			Reviewed/Approved By	

END OF SECTION

SECTION 01 14 00
SPECIAL PROJECT PROCEDURES

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

1. Green Building Ordinance: Compliance with the County of San Luis Obispo Green Building Ordinance. Requirements under this Section are in addition to Cal-Green mandatory measures.
    a. Requirements for Cal-Green Tier 1 as applicable to this project are described in the Drawings.
    b. Requirements for compliance documentation, verification and certification for Tier 1 measures are described in the Drawings and below in this Section.

B. Related sections:

1. Section 01 01 00 – Summary of the Work
2. Section 01 74 19 – Construction Waste Management
3. Section 01 50 00 – Temporary Facilities and Controls

1.2 SUBMITTALS AND PROCEDURES

A. Recycled Content Value: Cal-Green Tier 1 compliance includes achieving a minimum Recycled Content Value (RCV) of 10% of the total cost of materials installed in the Work.

B. RCV Documentation: Refer to Section 01 74 19 – Construction Waste Management–. Prepare and submit completed forms to demonstrate the RCV of component materials and the cumulative project materials RCV.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION (Not Used)

END OF SECTION

SECTION 01 23 00

ALTERNATES

PART 1 GENERAL

1. SECTION INCLUDES

Description of Alternates.

1.2 RELATED REQUIREMENTS

A. "Alternates" are identified as additive or deductive provisional scopes within the Bid instructions and Bid forms.

B. The alternates discussed herein impact building materials, assemblies and procedures described in various sections of these Specifications.

C. The method for stating the proposed cost is described on the Proposal Forms in Sections 00 21 13 and 00 41 13.

D. If the County elects to proceed on the basis of one or more of the alternates, the contractor will make all modifications to the work required in the furnishing and installation of the selected alternate to the approval of the Architect and at no additional cost to the County than as proposed on the Bid Forms.

1.3 ACCEPTANCE OF ALTERNATES

A. Alternates quoted on Bid Forms will be reviewed and accepted or rejected at the County's option. Accepted alternates will be identified in the Owner-Contractor Agreement.

1.4 SUBMITTALS

B. All alternatives described in Sections 00 21 13 and 00 41 13 of these Specifications are required to be reflected on the Bid Form.

1.5 SCHEDULE OF ALTERNATES

A. **Deductive Alternate No. 1 – Exterior Patio**

Delete from Base Bid all work associated with the new exterior Patio. The new patio extends from gridline 3 to between gridlines 4 & 5, to the east of gridline F. It includes the planter area around the stairs at gridline 5, the retaining wall surrounding the patio, the concrete slab of the patio, the drainage beneath the patio and planter, and the swale on the backside of the retaining wall.

B. **Deductive Alternate No. 2 – Skylight Replacement**

Delete from Base Bid the new skylight per Alternate Sheet.

C. **Deductive Alternate No. 3 – Custom Abstract Tree Décor**

DELETE from Base Bid the custom tree design and installation for the Children's Area per Alternate Sheet .

PART 2 PRODUCTS– NOT USED

PART 3 EXECUTION – NOT USED

END OF SECTION

SECTION 01 25 00

CONTRACT MODIFICATION PROCEDURES

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

1. Administrative and procedural requirements for handling and processing Contract modifications.

B. Related Sections:

1. Section 01 60 00 - Product Requirements

C. Related Documents:

1. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 General Requirements, apply to this Section.

1.2 MINOR CHANGES IN THE WORK

A. County Representative will issue supplemental instructions authorizing Minor Changes in the Work not involving adjustment to the Contract Sum or the Contract Time as Field Orders. Reference 00 70 00 5.03.C.

1.3 PROPOSAL REQUESTS

A. County-Initiated Cost Request Bulletins (CRB): County Representative will 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. Cost Request Bulletins issued by County Representative are for information only. Do not consider them instructions either to stop work in progress or to execute the proposed change.
2. Within fifteen (15) calendar days after receipt of Proposal Request, submit a quotation specifying 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 (San Luis Obispo County tax to be used), delivery charges, equipment rental (Cal Trans rates to be used), 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.

B. Contractor-Initiated Proposals: If latent or unforeseen conditions require modifications to the Contract, Contractor may propose changes by submitting a notice of change to County Representative within 5 calendar days of discovery, with price and schedule impacts due ten (10) days thereafter.

1. Include a statement outlining reasons for the change and the effect of the change on the Work, including the proposed change in Contract Sum and Contract Time. Provide a complete description of the proposed change.
2. 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.
3. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
4. Include costs of labor and supervision directly attributable to the change.
5. 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.
6. Comply with requirements in Division 1 Section 01 60 00 "Product Requirements" if the proposed change requires substitution of one product or system for product or system specified.

1.4 ALLOWANCES

A. Allowance Adjustment: To adjust allowance amounts, base each Change Order proposal on the difference between purchase amount and the allowance, multiplied by final measurement of work-in-place. If applicable, include reasonable allowances for cutting losses, tolerances, mixing wastes, normal product imperfections, and similar margins.

1. Include installation costs in purchase amount only where indicated as part of the allowance.
2. If requested, prepare explanation and documentation to substantiate distribution of overhead costs and other margins claimed.

1.5 CHANGE ORDER PROCEDURES

A. On County's approval of a Cost Request Bulletin or Contractor Initiated Proposal, County Representative will issue a Change Order for signatures of County and Contractor.

B. Work approved and performed via Cost Request Bulletin or Contractor Initiated Proposal cannot be billed until this work is incorporated into an executed Change Order.

1.6 CONSTRUCTION CHANGE DIRECTIVES

A. Construction Change Directive: County Representative may issue a Construction Change

Directive as referenced in General Conditions.

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. All time and material records are to be verified by the County's Representative in writing on a daily basis. If not verified in writing, the County will not acknowledge costs.

1. After completion of change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract. Work performed through a construction change directive cannot be billed until this work is incorporated into an executed Change Order.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION (Not Used)

END OF SECTION

SECTION 01 26 00

REQUEST FOR INTERPRETATION (RFI)

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

1. Requests for interpretation.

B. Related Sections:

1. Section 01 25 00 – Contract Modification Procedures
2. Section 01 30 00 – Submittal Procedures
3. Section 01 60 00 – Product Requirements

1.2 DEFINITIONS

A. Request for Interpretation (RFI): Request from Contractor seeking interpretation or clarification of some requirement of Contract Documents and not involving change in Contract Sum or Contract Time.

1. Improper RFI: An RFI meeting any of the following conditions:

a. RFI not prepared in accordance with requirements of this Section
b. RFI missing graphic solution proposal from Contractor where appropriate
c. RFI with subject listed as improper subject matter in "GENERAL" article of this section.

2. Frivolous RFI: RFI that requests information that is clearly indicated on or reasonably inferable from the Contract Documents.

B. Proposal Request: Document issued by the County after Contract award which may include drawings and other information used to solicit proposal for change in Work. See Division 01 Section 01 25 00 "Contract Modification Procedures."

1.3 GENERAL

A. Immediately on discovery of the need for additional information or interpretation of the Contract Documents, Contractor shall prepare and submit an RFI in the form specified.

B. Submit RFI from subcontractor or material supplier through Contractor to County Representative who shall review and sign each RFI prior to submittal.

1. County Representative will return RFIs submitted by other entities controlled by

Contractor 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. Improper subjects for RFIs: Do not submit RFI for following:

1. Requests for approval of submittals. Comply with Division 01 Section 01 30 00 "Submittal Procedures."
2. Requests for approval of substitutions. Comply with Division 01 Section 01 60 00 "Product Requirements".
3. Requests for approval of Contractor's means and methods.
4. Requests for coordination information already indicated in the Contract Documents.
5. Requests for coordination of various materials and systems indicated on Contract Documents with field conditions and with each other. Comply with Division 01 Section 01 31 00 "Project Management and Coordination."
6. To provide as-built information required by Record documents specified in Division 01 Section 01 70 00 "Closeout Requirements"
7. To request changes which are known to entail additional cost or credit, or alter Contract Time. Comply with Division 01 Section 01 25 00 "Contract Modification Procedures."
8. Requests for interpretation of County Representative's actions on submittals.
9. Incomplete RFIs or inaccurately prepared RFIs.

1.4 REQUEST FOR INTERPRETATION (RFI)

A. General:

1. RFI is a request for interpretation only. If Contractor believes response to RFI results in change in Contract Sum, Contract Time, or both, comply with Division 01 Section "Contract Modification Procedures."
2. Submit RFI on a form, subject to County Representative's prior review and approval. Form shall be completely filled in and if prepared and submitted electronically, and shall be fully legible.
3. RFI must be submitted electronically to the web-based collaboration tool.

B. Number RFIs sequentially using only next sequential number. Do not include subcontractors RFI number on form; include date submitted.

1. Each page of attachments to RFI shall bear RFI number and shall be consecutively numbered.

C. Content of RFIs:

1. Specifically identify if time response interpretation is required to avoid impact on Construction Schedule and Cost.

2. Include a detailed, legible description of item needing information or interpretation and

the following:

a. Project name.
b. Project number.
c. Date.
d. Name of Contractor.
e. Name of County Representative
f. RFI number, numbered sequentially.
g. RFI subject.
h. Specification Section number and title and related paragraphs, as appropriate.
i. Drawing number and detail references, as appropriate.
j. Field dimensions and conditions, as appropriate.
k. Contractor's suggested resolution.
l. Contractor's signature.

3. If Contractor's solution(s) impacts the Contract Time or the Contract Sum, Contractor shall notify the County of impact in the RFI.

4. Attachments: Include sketches, descriptions, measurements, photos, Product Data, Shop Drawings, coordination drawings, and other information necessary to fully describe items needing interpretation. Include dimensions, thicknesses, structural grid references, and details of affected materials, assemblies, and attachments on attached sketches.

D. RFI shall include written and graphic solutions proposed by Contractor. County and County Representative will determine if proposal is in accord with Contract Documents and design intent of Project.

1. Contractor’s failure to make reasonable effort to propose realistic solution may result in Request for Interpretation returned with no action.
2. Submit separate RFI for each item or, subject to County Representative’s approval, group of closely related items requiring interpretation or clarification.

E. Improper or Frivolous RFI:

1. Will be returned unanswered and shall be labeled as frivolous in the official RFI log.
2. At Contractor’s request, after notification by the County that RFI is improper or frivolous, RFI will be processed with processing costs charged to Contractor as follows:

Contractor shall reimburse County Representative’s account for time spent in processing improper or frivolous RFI at the following standard hourly rates. Hourly rates include mandatory and customary contributions and benefits including employment taxes and other statutory employee benefits, insurance, sick leave, holidays, vacations, pensions, and similar contributions and benefits.

a. Project Manager: $135/hour.
b.
c. Project Engineer: $165/hour.

F. For RFIs submitted in the form of drawings, follow submittal procedures specified for Shop

Drawings in Division 01 Section 01 30 00 “Submittal Procedures.”

1.5 REVIEW AND SUBMITTAL

A. Submit Electronic copy of completed RFI form to County Representative who will promptly forward to the County Representative for action, including required attachments.

1. RFI received after 3pm will have the following business day recorded as receipt of RFI date.
2. RFI received after 12pm on Fridays will not be processed until the following Monday, which will be the recorded receipt of RFI date.

B. Allow minimum of seven (7) calendar days review and response time for each RFI.

1. Requested response time indicated on RFI shall be consistent with minimum review period specified.
2. Requested response time will be extended where required by concurrent review of excessive number of RFIs, including improper and frivolous RFIs.

C. Country Representative Action: Country Representative will review each RFI, determine action required, and respond.

1. The following RFIs will be returned without action:

a. RFIs that meet improper or frivolous definitions as listed in this section.

2. Country Representative’s action may include a request for additional information, in which case Country Representative’s time for response will date from time of receipt of additional information.

3. Country Representative’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 01 Section 01 25 00 "Contract Modification Procedures."

4. If Contractor believes the RFI response warrants a change in the Contract Time or the Contract Sum, notify County Representative in writing within five (5) calendar days of receipt of the RFI response.

D. On receipt of Country Representative’s action, the County Representative will update the RFI log and immediately distribute the RFI response to the affected parties. Review response and notify County Representative within five (5) calendar days if Contractor disagrees with response.

E. RFI Log: The County CM or PM will prepare, maintain, and submit a tabular log of RFIs organized by the RFI number.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION (Not Used)

END OF SECTION

SECTION 01 29 00

PAYMENT PROCEDURES

PART 1 – GENERAL

1.1 SUMMARY

A. This Section specifies administrative and procedural requirements necessary to prepare and process Applications for Payment.

1.2 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.

1.3 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.
   b. Submittals Schedule.
   c. Contractor's Construction Schedule.
2. Submit the Schedule of Values to County Representative at earliest possible date but no later than seven (7) days before the date scheduled for submittal of initial Applications for Payment.
3. No payment applications will be signed by the County Representative prior to the Contract submitting, and the County Representative reviewing, a schedule of values.

B. Format and Content: Use the Technical Specifications 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 County Representative.
      c. County'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. Name of subcontractor.

d. Name of manufacturer or fabricator.
e. Name of supplier.
f. Change Orders (numbers) that affect value,
g. 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 Technical Specification 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.

1.4 APPLICATIONS FOR PAYMENT

A. Each Application for Payment shall be consistent with previous applications and payments as certified by County Representative 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 or another similar document approved by County Representative.

D. Application Preparation: Complete every entry on form. Notarize and execute by a person authorized to sign legal documents on behalf of Contractor. County Representative 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.

2. Include amounts of Change Orders and Construction Change Directives issued before the last day of construction period covered by application.

E. Transmittal: Submit 3 signed and notarized original copies of each Application for Payment to County Representative 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: In addition to the Division 00 requirements, 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. Products list.
   5. Schedule of unit prices.
   6. Submittals Schedule (preliminary if not final).
   7. List of Contractor's staff assignments.
   8. List of Contractor's principal consultants.
   9. Copies of authorizations and licenses from authorities having jurisdiction for performance of the Work.
   10. Initial progress report.
   11. Report of preconstruction conference.
   12. Certificates of insurance and insurance policies.
   13. Data needed to acquire Owner's insurance.
   14. Initial settlement survey and damage report if required.

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.
   3. Retention and other payment adjustments will be per Division 00 requirements.

H. Final Payment Application: Submit final Application for Payment per Division 00 requirements.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

END OF SECTION

SECTION 01 30 00

SUBMITTAL PROCEDURES

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

1. Administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other submittals.

B. Related Sections:

1. Section 01 60 00 - Product Requirements
2. Drawings and general provisions of the Contract, including General and other Division 01 General Requirements, apply to this section

1.2 GENERAL REQUIREMENTS

A. Submittals: Written and graphic information and physical samples that require Architect's and County Representative's responsive action. Submittals may be rejected for not complying with requirements. Informational submittals are those submittals indicated in individual Specification Sections as informational submittals. Action submittals are those submittals indicated in individual Specification Sections as action submittals. Written and graphic information and physical samples that do not require Architect's and County Representative's responsive action

B. Perform no portion of Work requiring submittal and review of Shop Drawings, Product Data, Samples, or similar submittals until respective submittal has been returned stamped with action by Architect and County Representative allowing Work to proceed.

C. Contractor shall not be relieved of responsibility for deviations from requirements of Contract Documents by Architect's and County Representative's review of Shop Drawings, Product Data, Samples, or similar submittals unless Contractor has specifically informed County Representative in writing of such deviation at time of submittal and County Representative have given written acceptance to specific deviation. Contractor shall not be relieved of responsibility for errors or omissions in Shop Drawings, Product Data, Samples, or similar submittals by County Representative's review thereof.

D. Direct specific attention, in writing or on resubmitted Shop Drawings, Product Data, Samples, or similar submittals, to revisions other than those requested by County Representative on previous submittals.

1.3 SUBMITTAL PROCEDURES

A. General: Electronic copies of the Contract Drawings will be provided by County Representative in pdf format for Contractor's use in preparing submittals, subject to completion and return of County Representative's release.

B. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.

1. As required for each submittal, submit product data, Shop Drawings, material samples, color chips or charts, test data, certificates, and warranties at the same time for each Section of the Specifications.
2. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
3. 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.
4. County Representative reserve the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.

C. Submittals Schedule: Comply with requirements in Division 01 Section 01 32 10 "Progress Schedules and Reports".

D. Processing Time: Allow enough time for submittal review, including time for resubmittals, as follows. Time for review shall commence based on County Representative's receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals far enough in advance of the Work to permit processing, including resubmittals.

1. Initial Review: Allow ten (10) days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. County Representative will advise Contractor when a submittal being processed must be delayed for coordination.
2. Intermediate Review: If intermediate submittal is necessary, process it in same manner as initial submittal.
3. Resubmittal Review: Allow seven (7) days for review of each resubmittal.
4. Sequential Review: Where sequential review of submittals by County Representative's consultants, County, or other parties is indicated, allow ten (10) days for initial review of each submittal.
5. Concurrent Consultant Review: Where the Contract Documents indicate that submittals may be transmitted simultaneously to County Representative and to County Representative's consultants, allow ten (10)days for review of each submittal. Submittal will be returned to County Representative before being returned to Contractor.

5. Submittal received on Friday afternoon will not be processed until the following Monday, which will be the recorded receipt of submittal date.

6. Deferred Submittals. Allow 21 days.

E. 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 County Representative.

3. Include the following information on label for processing and recording action taken:

a. Project name.
b. Date.
c. Name and address of County Representative.
d. Name and address of Contractor.
e. Name and address of subcontractor.
f. Name and address of supplier.
g. Name of manufacturer.
h. Submittal number or other unique identifier, including revision identifier.

1) Submittals shall be numbered sequentially and format shall be: Sequential Number followed by Specification Section number followed by the revision number (e.g., 01-061000-0). Resubmittals shall modify the revision number sequentially as required (e.g., 01-061000-1).

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.

F. Deviations: Highlight or otherwise specifically identify deviations from the Contract Documents on submittals.

G. Copies: Unless additional copies are required for final submittal, and unless County Representative observes noncompliance with provisions in the Contract Documents, initial submittal may serve as final submittal.

1. Submit one (1) electronic copy. Submit a minimum of five (5) paper copies of submittals to County Representative if additional copies are needed.

H. Transmittal: Package each submittal individually and appropriately for transmittal and handling. Transmit each submittal using a transmittal form. County Representative will discard submittals received from sources other than Contractor.

1. Transmittal Form: Use a transmittal form acceptable to the County Representative.

2. On an attached separate sheet, prepared on Contractor's letterhead, record relevant

information, requests for data, revisions other than those requested by County Representative on previous submittals, and deviations from requirements in the Contract Documents, including minor variations and limitations. Include same label information as related submittal.

A. 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: 'Reviewed. No exceptions taken.' or 'Reviewed. Exceptions noted. Resubmission not required.'

J. 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. Upload to the PMCS in PDF format.

K. Use for Construction: Use only final submittals marked with approval notation by Architect and County Representative.

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.
   3. Include the following information, as applicable:

      a. Manufacturer's written recommendations.
      b. Manufacturer's product specifications.
      c. Manufacturer's installation instructions.
      d. Standard color charts.
      e. Manufacturer's catalog cuts.
      f. Wiring diagrams showing factory-installed wiring.
      g. Printed performance curves.
      h. Operational range diagrams.
      i. Mill reports.
      j. Standard product operation and maintenance manuals.
      k. Compliance with specified referenced standards.
      l. Testing by recognized testing agency.
      m. Application of testing agency labels and seals.
      n. Notation of coordination requirements.

o. Warranty.

4. Submit Product Data before or concurrent with Samples.
5. Electronic Submittal: Submit initial Product Data electronically to the County Representative as pdfs thought email communications or through web-based collaboration tool. The County Representative will forward to the Architect. Marked up Product Data will be returned in a similar manner.
6. Number of Copies for Record: Submit two (2) copies of each fully executed Product Data submittal, unless otherwise indicated.

C. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data, unless submittal of CAD Drawings are otherwise permitted.

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. Shop work manufacturing instructions.
g. Templates and patterns.
h. Schedules.
i. Design calculations.
j. Compliance with specified standards.
k. Notation of coordination requirements.
l. Notation of dimensions established by field measurement.
m. Relationship to adjoining construction clearly indicated.
n. Seal and signature of professional Architect or County Representative if specified.
o. 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 to scale.

3. Electronic Submittal: Submit approved Shop Drawings electronically to the County Representative as pdfs through web-based collaboration tool.

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 County'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 a minimum of two (2) full set(s) of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line. Architect, through County Representative will return one (1) copy of 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 and County Representative 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. Product Schedule or List: As required in individual Specification Sections, prepare a written summary indicating types of products required for the Work and their intended location. Include the following information in tabular form:

   1. Type of product. Include unique identifier for each product.

2. Number and name of room or space.
3. Location within room or space.
4. Number of Copies: Submit three (3) copies of product schedule or list, unless otherwise indicated. Architect, through County Representative will return two (2) copies.
   a. Mark up and retain one returned copy as a Project Record document.

F. Subcontract List: Prepare a written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design. Include the following information in tabular form:

1. Name, address, and telephone number of entity performing subcontract or supplying products.
2. Number and title of related Specification Section(s) covered by subcontract.
3. Drawing number and detail references, as appropriate, covered by subcontract.
4. Number of Copies: Submit three (3) copies of subcontractor list, unless otherwise indicated. Architect, through County Representative will return two (2) copies.

   a. Mark up and retain one (1) returned copy as a Project Record document.

2.2 INFORMATION SUBMITTALS

A. General: Prepare and submit Informational Submittals required by other Specification Sections.

1. Number of Copies: Submit two copies of each submittal, unless otherwise indicated. County Representative will not return copies. These may be submitted in electronic form or hard copy.
2. Certificates and Certifications: Provide a notarized document that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.

3. Test and Inspection Reports: Comply with requirements specified in Division 1 Section "Quality Requirements.

B. Coordination Drawings: Comply with requirements specified in Division 1 Section "Project Management and Coordination."

C. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, names and addresses of County Representatives and County's, and other information specified.

D. 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.

E. Installer Certificates: Prepare written documents 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.

F. Manufacturer Certificates: Prepare written documents on manufacturer's letterhead certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.

G. Product Certificates: Prepare written documents on manufacturer's letterhead certifying that product complies with requirements in the Contract Documents.

H. Material Certificates: Prepare written documents on manufacturer's letterhead certifying that material complies with requirements in the Contract Documents.

I. 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.

J. 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.

K. Research/Evaluation Reports: Prepare written evidence, from a model code organization acceptable to authorities having jurisdiction, that product complies with building code in effect for Project. Include the following information:

1. Name of evaluation organization.
2. Date of evaluation.
3. Time period when report is in effect.
4. Product and manufacturers' names.
5. Description of product.
6. Test procedures and results.
7. Limitations of use.

L. Schedule of Tests and Inspections: Comply with requirements specified in Division 1 Section "Quality Requirements."

M. Preconstruction Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of tests performed before installation of product, for compliance with performance requirements in the Contract Documents.

N. Compatibility Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of compatibility tests performed before installation of product. Include written recommendations for primers and substrate preparation needed for adhesion.

O. Field Test Reports: Prepare reports written by a qualified testing agency, on testing agency's

standard form, indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements in the Contract Documents.

P. Maintenance Data: Prepare written and graphic instructions and procedures for operation and normal maintenance of products and equipment. Comply with requirements specified in Division 1 Section "Operation and Maintenance Data."

Q. Design Data: Prepare written and graphic information, including, but not limited to, performance and design criteria, list of applicable codes and regulations, and calculations. Include list of assumptions and other performance and design criteria and a summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Include page numbers.

R. Manufacturer's Instructions: Prepare written or published information that documents manufacturer's recommendations, guidelines, and procedures for installing or operating a product or equipment. Include name of product and name, address, and telephone number of manufacturer. Include the following, as applicable:

1. Preparation of substrates.
2. Required substrate tolerances.
3. Sequence of installation or erection.
4. Required installation tolerances.
5. Required adjustments.
6. Recommendations for cleaning and protection.

S. Manufacturer's Field Reports: Prepare written information documenting factory-authorized service representative's tests and inspections. Include the following, as applicable:

1. Name, address, and telephone number of factory-authorized service representative making report.
2. Document on condition of substrates and their acceptability for installation of product.
3. Document that products at Project site comply with requirements.
4. Summary of installation procedures being followed, whether they comply with requirements and, if not, what corrective action was taken.
5. Results of operational and other tests and a document of whether observed performance complies with requirements.
6. Document weather conditions, products, and installation will affect warranty.
7. Other required items indicated in individual Specification Sections.

T. Insurance Certificates and Bonds: Prepare written information indicating current status of insurance or bonding coverage. Include name of entity covered by insurance or bond, limits of coverage, amounts of deductibles, if any, and term of the coverage.

U. Material Safety Data Sheets (MSDSs): Submit information to County Representative for county review and information.

2.3 DELEGATED DESIGN

A. Performance and Design Criteria: Where professional design services or certifications by a design professional are specifically required of Contractor by the Contract Documents, provide products and systems complying with specific performance and design criteria indicated.

1. If criteria indicated are not sufficient to perform services or certification required, submit a written request for additional information to County Representative.

B. Delegated-Design Submittal: In addition to Shop Drawings, Product Data, and other required submittals, submit three copies of a document, signed and sealed by the responsible design professional, for each product and system specifically assigned to Contractor to be designed or certified by a design professional.

1. Indicate that products and systems comply with performance and design criteria in the Contract Documents. Include list of codes, loads, and other factors used in performing these services.

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 the County Representative.

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 document certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

3.2 COUNTY REPRESENTATIVE'S ACTION

A. General:

1. Architect and County Representative will not review submittals that do not bear Contractor's approval stamp and will return them without action.
2. Purpose of submittal is to demonstrate for those portions of Work for which submittals are required, manner in which Contractor proposes to conform to information given and design concept expressed on Contract Documents.
3. Review is not conducted for purpose of determining accuracy and completeness of other details such as dimensions and quantities, or for substantiating instructions for installation or performance of equipment or systems, all of which remain responsibility of Contractor.
4. Compliance with specified characteristics is Contractor's responsibility and not considered part of Architect's or County Representative's review and indication of action

taken.

5. Acceptance of submittals with deviations shall not relieve Contractor from responsibility for additional costs of changes required to accommodate such deviations. Deviations included in submittals without prior acceptance are excepted from review of submittals whether noted or not on returned copy.
6. Review of separate item shall not indicate acceptance of assembly of which item is part.
7. Make only those revisions required or accepted by County Representative.
8. Notations by Architect or County Representative which increase Contract Cost or Contract Time shall be brought to County Representative's attention, in writing, before proceeding with Work.
9. When professional certification of performance criteria of materials, systems, or equipment is required by Contract Documents, Architect and County Representative shall be entitled to rely upon accuracy and completeness of such calculations and certifications.
10. County Representatives County'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 County Representative's and County's attention to the deviations at the time of submission as specified.

B. Action Submittals: Architect and County Representative will review each submittal, make marks to indicate corrections or modifications required, and return it. Architect and County Representative will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action taken, as follows:

1. Reviewed. No exceptions taken.
2. Reviewed. Exceptions noted. Resubmission not required.
3. Reviewed. Exceptions noted. Resubmission required.
4. Rejected. Resubmission required.
5. Information received. No review required.

C. Informational Submittals: County Representative will review each submittal and will not return it, or will return it if it does not comply with requirements. County Representative will forward each submittal to appropriate party.

D. Partial submittals are not acceptable, will be considered nonresponsive, and will be returned without review.

E. Submittals not required by the Contract Documents may not be reviewed and may be discarded.

END OF SECTION

SECTION 01 31 00
PROJECT MANAGEMENT AND COORDINATION

PART 1 GENERAL

1.1 PROJECT CONTROL

A. The County Representative will outline and detail communication, correspondence and coordination procedures at the Project pre-construction meeting.

B. Condition of Work in Place: Contractors and subcontractors shall inspect and take responsibility for previously prepared or installed work of other contractors before applying subsequent materials or finishes. If work is in unsatisfactory condition, notify the County. Do not proceed until defective work has been corrected.

C. Overall Coordination:

1. Subletting and Subcontracting Responsibilities: Refer to General Conditions of the Contract for Construction, Section 00 70 00.
2. Contractor shall coordinate the Work with related work being done by the County and other contractors operating in the area. This coordination shall include reasonable adjustments of schedule in order to allow other contractors and the County to do their work.
3. Contractor shall coordinate electrical work, particularly between general trades and mechanical/electrical trades so that sleeves, hangers, chases, openings, etc., required for pipe, conduit, and other installations of like character are duly and properly provided for and installed as work progresses.
4. Contractor shall carefully examine Drawings relating to entire work with actual conditions so that Work will be accommodated in spaces provided. General arrangement and location of elements of various systems is shown on the Drawings or specified. Final locations, levels, etc., shall be governed by actual material size used, by building conditions encountered, and by work of all trades. Space conflicts and interferences shall be resolved before work is installed.
5. Contractor shall utilize the Contract Documents, submittals, and layout drawings of the various trades to check and coordinate the Work so that no interferences or conflicts between trades will occur. This checking and coordination shall be performed and completed before construction is commenced in each affected area.
6. Contractor shall coordinate the work to assure efficient and orderly sequence of installation of construction elements. Make provisions for accommodating items installed by the County or under separate contracts.
7. The Contractor shall verify that the characteristics of interrelated operating equipment are compatible; and shall coordinate all work required for installing, connecting and placing such equipment into service.
8. The Contractor and each subcontractor whose work is affected by the placement of any concrete, at least 24 hours prior to the placement of such concrete, shall provide written certification to the County that the area has been inspected, all work required to be completed before the placement of concrete has been completed and the area is ready for placement of concrete.

D. Architectural, Civil, Structural, Plumbing, and Electrical Coordination:

1. The Contractor shall use scaled (22"x34" sheets) layout drawings of the Architectural, Civil, Structural, Plumbing, and Electrical Work, together with Shop Drawings of the affected Work, to check, coordinate and integrate the Work to prevent interference.
2. The Contractor shall perform and complete checking and coordination before commencing construction in the affected areas.
3. The Contractor shall place lines for utility service in walls above equipment, in ceilings, and underground as indicated and necessary.

E. Administrative Procedures:
1. 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:
    a. Preparation of Contractor's Construction Schedule.
    b. Preparation of the Schedule of Values.
    c. Installation and removal of temporary facilities and controls.
    d. Delivery and processing of submittals.
    e. Progress meetings.
    f. Preinstallation conferences.
    g. Project closeout activities.
    h. Startup and adjustment of systems.
    i. Project closeout activities.

D. Conservation:
1. Coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water, and materials.
    a. Salvage materials and equipment involved in performance of, but not actually incorporated into, the Work. Refer to other Sections for disposition of salvaged materials that are designated as County's property.

1.2 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 County and County Representative 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 County and County Representative, within three (3) days of the meeting.

B. Preconstruction Conference: A preconstruction conference will be scheduled by the County’s Representative before the start of construction, at a time convenient to all parties, but no later than 15 days after execution of the Agreement. Conference will be held at Project site or another convenient location. Contractor shall be prepared to review

responsibilities and personnel assignments.

1. Attendees: Authorized representatives of County, County Representative, 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 and existing building.
    m. Work restrictions.
    n. County's occupancy requirements.
    o. Responsibility for temporary facilities and controls.
    p. Construction waste management and recycling.
    q. Parking availability.
    r. Office, work, and storage areas.
    s. Equipment deliveries and priorities.
    t. First aid.
    u. Security.
    v. Progress cleaning.
    w. Working hours.

C. Preinstallation Conferences: Contractor shall 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 County Representative 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 the 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.
1. Attendees: In addition to representatives of County, County Representative, 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 the minutes of the meeting to each party present and to parties who should have been present.
5. Schedule Updating: Revise Contractor's Construction Schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with the report of each meeting.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (Not Used)

END OF SECTION

SECTION 01 32 10

PROGRESS SCHEDULES AND REPORTS

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

1. Furnish computerized Critical Path Method (CPM) Progress Schedule showing in detail how Contractor plans to execute and coordinate the Work.

1.2 SUBMITTALS

A. CPM Contract Schedule

1. Within seven (7) calendar days after receiving Notice to Proceed, Contractor shall furnish the County's Representative, one PDF file and one hard copy of a CPM contract schedule.

2. County's Representative will review the CPM contract schedule for conformance with the requirements of the contract. Within seven (7) calendar days after receipt, County's Representative will accept the CPM contract schedule or will return it with comments. If the proposed CPM contract schedule is not accepted, Contractor shall revise the schedule to incorporate comments and resubmit the schedule for acceptance within seven (7) calendar days after receiving it.

A. Construction Progress Schedule

1. Contractor shall submit to the County’s Representative each month an up-to-date status report of the work.

1.3 GENERAL REQUIREMENTS

A. The Contract schedule shall be the basis for evaluating job progress, payment requests, and time extension requests. The responsibility for developing the contract schedule and monitoring actual progress as compared to the schedule rests with the Contractor.

B. Failure of the contract schedule to include any element of the work, or any inaccuracy in the Contract schedule, will not relieve the Contractor from responsibility for accomplishing all the work in accordance with the contract.

C. No constraint on any activity is allowed in the schedule unless it is required by the Contract. The schedule should reflect a logical flow the project activities.

D. Acceptance of the official contract schedule will not relieve the Contractor of the responsibility for accomplishing the work in accordance with the contract.

1.4 PROGRESS SCHEDULE

A. The Contractor's monthly Construction Progress Schedule report shall include:

1. Contractor's estimated percentage complete for each activity not yet completed.
2. Actual start/finish dates for activities as appropriate.
3. Identification of processing errors, if any, on the previous update reports.
4. Revisions, if any, to the assumed activity durations, including revisions for weather impact, for any activities due to the effect of the previous update on the schedule.
5. Identification of activities which are affected by Cost Request Bulletin issued during the update period.
6. Resolution of conflict between actual work progress and schedule logic. When out-of-sequence activities develop in the contract schedule because of actual construction progress, the Contractor shall submit a revision to schedule logic to conform to current status and direction.

B. Progress payments pursuant to the Contract will require an update of the construction progress schedule.

1.5 SHORT INTERVAL SCHEDULE

A. Short Interval Scheduling (SIS) shall be used throughout onsite construction activity.

B. The interval shall be a four (4) week projection and shall include the week submitted and three (3) weeks thereafter. The schedule shall be consistent with the CPM schedule and depict daily labor activities.

C. It shall contain sufficient detail to evaluate the monthly updated Schedule.

D. Short Interval Schedule shall be submitted, twenty-four (24) hours prior to weekly construction progress meetings, to the County Representative.

1.6 SCHEDULE REVISIONS

A. Should the Contractor, after acceptance of the contract schedule, intend to change his plan of construction, the Contractor shall submit his requested revisions to the County's Representative along with a written statement of the revision; including a description of the logic for rescheduling the work, methods of maintaining adherence to intermediate milestones, and other specific dates and the reasons for the revisions. If the requested changes are acceptable to the County’s Representative, they will be incorporated into the contract schedule in the next reporting period.

B. Schedule revisions shall be submitted at least seven (7) calendar days prior to the date of submission of update information. The County will have seven (7) calendar days to review the revisions.

C. If the sequence of construction differs significantly from the contract schedule, as determined by the County's Representative, the Contractor shall submit within fifteen (15) calendar days a revised schedule to the County's Representative for acceptance.

1.7 SCHEDULE CHANGES

A. When a Cost Request Bulletin is issued which has the potential to impact specified completion dates, a network window shall be prepared by the Contractor to reflect the impact of such changes, said network window shall be submitted to the County's Representative. After the network window has been accepted, by the County's Representative, and the Contractor ordered to proceed with the Cost Request Bulletin, it shall be incorporated into the contract schedule. Time extensions will be considered only to

the extent there is insufficient remaining float to accommodate these changes, and pursuant to Part 1 of these specifications. No additional cost beyond that provided in the General Conditions will be allowed for the incorporation of approved Cost Request Bulletin into the contract schedule.

B. The Contractor shall submit to the County's Representative, a network window for all claimed time extension requests showing the impact of claimed delay on the contract schedule. Time extensions shall be negotiated per the requirements of the General Conditions.

C. Float or Slack Time is the amount of time between the earliest start date and the late start date or between the earliest finish date and the latest finish date of activities of the contract schedule. No time extensions or delay costs will be allowed for delays caused by the Owner, on paths or activities containing float time, providing such delay does not exceed the float time per the latest updated version of the contract schedule.

D. The County's Representative shall have no obligation to consider any time extension request unless the requirements of the contract documents are complied with; the Owner shall not be responsible or liable to the Contractor for any construction acceleration due to failure of the County to grant time extensions under the contract documents should the Contractor fail to substantially comply with the submission requirements and the justification requirements of this contract for time extension requests. The Contractor's failure to perform in accordance with the contract schedule shall not be excused because the Contractor has submitted time extension requests; until, and unless, such requests are approved by the County.

1.8 RECOVERY SCHEDULE

A. If the contract schedule falls fourteen (14) calendar days behind schedule on milestone dates or completion dates, the Contractor shall be required to prepare and submit a Recovery Schedule to the County's Representative, with form and detail appropriate to the need to explain, and display, how they intend to reschedule activities to regain compliance with the contract schedule during the immediate subsequent pay period.

B. Upon acceptance by the County's Representative, the recovery schedule shall be incorporated into the contract schedule by the Contractor.

1.9 PAYMENTS WITHHELD

A. Progress Payments may be withheld in whole or in part should Contractor fail to comply with requirements of this Section.

B. Refer to Specifications Section 00 70 00 General Conditions.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION (Not Used)

END OF SECTION

SECTION 01 40 00

QUALITY CONTROL

PART 1 GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General Conditions and other Division 01 Specification Sections, apply to this Section.

1.2. SUMMARY

A. This Section includes administrative and procedural requirements for quality assurance and quality control.

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 quality-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 County, County Representative, or authorities having jurisdiction are not limited by provisions of this Section.
4. Costs for re-testing and re-inspection, including special inspections and testing, regardless of the party responsible for the original testing and inspection, shall be the responsibility of the Contractor.

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 County Representative or County Inspector.

C. Preconstruction Testing: Tests and inspections that are performed specifically for the Project before products and materials are incorporated into the Work to verify performance or compliance with specified criteria.

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 five 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 County Representative or County Inspector 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 County Representative or County Inspector for a decision before proceeding.

1.5. SUBMITTALS

A. Qualification Data: For testing agencies specified under "Quality Assurance" in individual Sections of the Specifications 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. 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 re-inspecting.

Permits, Licenses, and Certificates: For County'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 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 to produce required units.

E. Professional Architect Qualifications: A professional Architect who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing Architectural services of the kind indicated. Architectural 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.

1.7. QUALITY CONTROL

A. County Responsibilities: Where quality-control services are indicated as County's responsibility, County will engage a qualified testing agency to perform these services.

1. County will furnish Contractor with names, addresses, and telephone numbers of testing agencies engaged and a description of types of testing and inspecting they are engaged to perform.
2. Costs for retesting and re-inspecting construction that replaces or is necessitated by work that failed to comply with the Contract Documents will be charged to Contractor, and the Contract Sum will be adjusted by Change Order.

B. Tests and inspections not explicitly assigned to County are Contractor's responsibility. Unless otherwise indicated, provide quality-control services specified and those required by authorities having jurisdiction. Perform quality-control services required of Contractor by authorities having jurisdiction, whether specified or not.

1. Where services are indicated as Contractor's responsibility, engage a qualified testing agency to perform these quality-control services.
   a. Contractor shall not employ same entity engaged by County, unless agreed to in writing by County.
2. Notify testing agencies at least 48 hours in advance of time when Work that requires testing or inspecting will be performed.
3. Where quality-control services are indicated as Contractor's responsibility, submit a certified written report, in duplicate, of each quality-control service.
4. Testing and inspecting requested by Contractor and not required by the Contract Documents are Contractor's responsibility.
5. Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.

a. Contractor shall be responsible for the cost of testing and inspections scheduled outside of normal business hours.

C. 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."

D. Retesting/Re-inspecting: Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services, including retesting and re-inspecting, for construction that replaced Work that failed to comply with the Contract Documents. Costs for retesting and re- inspection shall be the responsibility of the Contractor.

E. Testing Agency Responsibilities: Cooperate with County Representative, County Inspector, and Contractor in performance of duties. Provide qualified personnel to perform required tests and inspections.

1. Notify County Representative, County Inspector, and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.
2. Determine the location from which test samples will be taken and in which in-situ tests are conducted.
3. Conduct and interpret tests and inspections and County in each report whether tested and inspected work complies with or deviates from requirements.
4. Submit a certified written report, in duplicate, of each test, inspection, and similar quality-control service through Contractor.
5. Do not release, revoke, alter, or increase the Contract Document requirements or approve or accept any portion of the Work.
6. Do not perform any duties of Contractor.

F. Associated Services: Cooperate with agencies performing required tests, inspections, and similar quality-control services, and provide reasonable auxiliary services as requested. Notify agency sufficiently in advance of operations to permit assignment of personnel. Provide the following:

1. Access to the Work.
2. Incidental labor and facilities necessary to facilitate tests and inspections.
3. Adequate quantities of representative samples of materials that require testing and inspecting. Assist agency in obtaining samples.
4. Facilities for storage and field curing of test samples.
5. Delivery of samples to testing agencies.
6. Preliminary design mix proposed for use for material mixes that require control by testing agency.
7. Security and protection for samples and for testing and inspecting equipment at Project site.

G. 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.

H. Schedule of Tests and Inspections: Prepare a schedule of tests, inspections, and similar quality- control services required by the Contract Documents. Submit schedule within 30 days of date established for the Notice to Proceed.

I. Distribution: Distribute schedule to County, County Representative, County Inspector, testing agencies, and each party involved in performance of portions of the Work where tests and inspections are required.

1.8. SPECIAL TESTS AND INSPECTIONS

A. Special Tests and Inspections: Conducted by a qualified testing agency as required by authorities having jurisdiction, as indicated in individual Specification Sections, and as follows:

1. Verifying that manufacturer maintains detailed fabrication and quality-control procedures and reviewing the completeness and adequacy of those procedures to perform the Work.
2. Notifying County Representative, County Inspector, and Contractor promptly of irregularities and deficiencies observed in the Work during performance of its services.
3. Submitting a certified written report of each test, inspection, and similar quality-control service to County Inspector, through County Representative, with copy to Contractor and to authorities having jurisdiction.
4. Submitting a final report of special tests and inspections at Substantial Completion, which includes a list of unresolved deficiencies.
5. Interpreting tests and inspections and stating in each report whether tested and inspected work complies with or deviates from the Contract Documents.
6. Retesting and re-inspecting corrected work.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION

3.1 TEST AND INSPECTION LOG

A. Prepare a record of tests and inspections. The County is to hire and pay for tests and inspections from independent agencies.

1. Date test or inspection was conducted.
2. Description of the Work tested or inspected.
3. Date test or inspection results were transmitted to County Representative.
4. Identification of testing agency or special inspector conducting test or inspection.

B. Maintain log at Project site. Post changes and modifications as they occur. Provide access to test and inspection log for County Representative and County Inspector’s reference during normal working hours.

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.
2. Comply with the Contract Document requirements for Division 1 Section "Cutting and Patching."

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

SECTION 01 42 00

REFERENCES

PART 1 GENERAL

1.1 DESCRIPTION

A. This section includes abbreviations and acronyms, additional definitions, and reference standards used in the Contract Documents.

B. Refer to GENERAL CONDITIONS and other Contract Documents for further information.

1.2 ABBREVIATIONS AND ACRONYMS

A. The following abbreviations and acronyms may be used in the Contract Documents. Refer uncertainties to the County for a decision before proceeding.

AA	Aluminum Association
AAADM	American Association of Automatic Door Manufacturers
AAMA	Architectural Aluminum Manufacturers' Association
AASHTO	American Association of Stale Highway and Transportation Officials
AATCC	American Association of Textile Chemists and Colorists
ACI	American Concrete Institute
ADA	Americans with Disabilities Act
AFPA	American Forest and Paper Association
AIA	American Institute of Architects
AIMA	Acoustical and lnsulation Materials Association (Now NAIMA - North American Insulation Manufacturers Association)
AISC	American Institute of Steel Construction
AMCA	American Movement and Control Association
ANSI	American National Standards Institute
APA	The Engineered Wood Association (formerly the American Plywood Association)
ARI	Air Conditioning and Refrigeration Institute
ASA	American Standards Association
ASHRAE	American Society of Heating, Refrigerating, and Air-Conditioning Engineers ASMEAmerican Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
AWPA	American Wood Preservers' Association
AWWA	American Water Works Association
AWS	American Welding Society
BHMA	Builders Hardware Manufacturers' Association
BIA	Brick Institute of America
CAUOSHA	State of California Construction Safety Orders
CALTRANS	State of California, Business and Transportation Agency,
CCR	Department of Transportation, standard Specifications" California Code of Regulations
CDA	Copper Development Association
CISCA	Ceilings and Interior Systems Construction Association
CFFA	Chemical Fabrics and Film Association, Inc.

CFMG	Cabinet and Fixture Manufacturers Guild
CLFMJ	Chain Link Fence Manufacturers' Institute
CPA	Composite Panel Association {formerly the National Particleboard Association)
CRI	Carpet and Rug Institute
CRSI	Concrete Reinforcing Steel Institute
CPSC	United States Consumer Products Safety Commission
CS	Commercial Standard, United States Department of Commerce
GS	Canadian Standards Association
DASMA	Door and Access Systems Manufacturers Association International
EPA	Environmental Protection Agency
ESO	Electrical Safety Orders
FAA	Federal Aviation Administration, United States Department of Transportation FCC Federal Communications Commission
FGMA	Flat Glass Marketing Association (now the GANA)
FM	Factory Mutual System, Factory Mutual Engineering Corporation FS Federal Specification Unit
GA	Gypsum Association
GANA	Glass Association of North America (formerly the Flat Glass Marketing Association and Glass Tempering Association)
GRI	Geosynthetic Research Institute
GTA	Glass Tempering Association (now the GANA)
HMA	Hardwood Manufacturers Association
HPMA	Hardwood Plywood Manufacturers Association
HPVA	Hardwood Plywood and Veneer Association
HUD	United States Department of Housing and Urban Development IEEEInstitute of Electrical and Electronic Engineers
IGCC	Insulating Glass Certification Council
ITS-WH	lntertek Testing Service -Warnock Hersey
LSGA	Laminator's Safety Glass Association
MIA	Marble Institute of America or the Masonry Institute of America
MIL	Military Standardization Document, United States Department of Defense MIW Masonry Institute of Washington
MUSFA	Metal Lath/Steel Framing Association
MM	"Materials Manual", State of California, Business and Transportation Agency, Department of Transportation
NAAMM	National Association of Architectural Metal Manufacturers
NBGQA	National Building Granite Quarries Association, Inc.
NBS	National Bureau of Standards (now the NIST)
NCMA	National Concrete Masonry Association
NEC	National Electrical Code
NEMA	National Electric Manufacturers' Association
NFPA	National Fire Protection Association
NFPA	National Forest Products Association (now the AFPA)
NFRC	National Fenestration Rating Council
NHLA	National Hardwood Lumber Association
NIST	National Institute of Standards and Technology, United States Department of Commerce (formerly the National Bureau of Standards)
NOFMA	National Oak Flooring Manufacturers Association
NPDES	National Pollutant Discharge Elimination System

NRCA	National Roofing Contractors Association
NSF	NSF International (formerly National Sanitary Foundation)
NWWDA	National Wood Window and Door Association (now WDMA)
OSA	Office of the State Architect, State of California
PCA	Precast-Prestressed Concrete Institute
PS	Product Standard, United States Department of Commerce
RIS	Redwood Inspection Service
SFM	Office of the State Fire Marshall, State of California
SIGMA	Sealed Insulated Glass Manufacturer's Association
SMACNA	Sheet Metal and Air Conditioning Contractors National Association
TCA	Tile Council of America
UL	Underwriter's Laboratories, Inc.
USS	United States Standard
WCLIB	West Coast Lumber Inspection Bureau
WDMA	Window and Door Manufacturer's Association
WI	Woodwork Institute
WWCCA	Western Wall and Ceiling Contractors Association

B. Additional abbreviations, used on the Drawings, are listed and defined thereon.

1.3 REFERENCE STANDARDS

A. Specified standards of the construction industry shall have the same force and effect on the performance of the Work as if bound or copied directly into the Contract Documents. Such standards are made a part of the Contract Documents by reference.

B. Each entity or person engaged in the Work shall be familiar with the industry standards applicable to its construction activity.

C. Where compliance with two or more standards is specified and the standards establish different or conflicting requirements for minimum qualities or quality levels, comply with the most stringent requirement. Refer uncertainties and requirements that are different, but apparently equal, to the County Representative for a decision before proceeding.

D. Copies of applicable standards are not bound with the Contract Documents. Where copies are required for proper performance of the Work, obtain and pay for authorized copies directly from publication source and maintain at the Site during submittals, planning, and performance of Work until final acceptance by the County. Make such copies of standards available to the County and County Representative for review upon request.

E. For Products or quality of installation specified by association, trade, military, federal, or other reference standards, comply with requirements of the standard, except when more rigid requirements are specified in Contract Documents or are required by applicable codes and/or public authorities having jurisdiction.

1. Except as otherwise indicated or specified, where compliance with a reference standard is required, comply with the standard in effect as of the date established for the receipt of Bids. Where a reference standard has been revised and reissued after the date established for the receipt of Bids and before performance of the Work affected, notify

the County Representative in writing and request a decision on how to proceed. County Representative may issue a Contract Modification or a County Representative's Supplemental Instruction for proceeding in accordance with the updated standard.

2. The contractual relationship of the parties to the Contract shall not be altered from the Contract Documents by mention or inference otherwise in a reference standard. The provisions of the Bidding Requirements, General Conditions, Contract, and Division 1 General Requirements shall void the general, but not technical, provisions of a reference standard in conflict therewith.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION (Not Used)

END OF SECTION

SECTION 01 45 00

TESTING LABORATORY SERVICES

PART 1 GENERAL

1.1 REQUIREMENTS INCLUDED

A. The County will employ and pay for services of an independent testing laboratory to perform specified testing for CCR Title 24.

1. Contractor shall cooperate with laboratory to facilitate execution of its required services.
2. Employment of laboratory shall in no way relieve Contractor's obligations to perform work of the Contract.

1.2 RELATED REQUIREMENTS

A. Section 00 70 00: General Conditions

B. Division 01 General Conditions Requirements: Certification of products, qualifications of testing, organizations, and specific services required.

1.3 REQUIRED TESTS AND INSPECTIONS

A. General: Should any item listed below in this Section conflict with a Special Inspection requirement that appears in the Drawings, the requirement in the Drawings governs.

B. CCR Title 24 Tests and Inspections: Except as noted otherwise, tests and inspections listed below shall be performed by County's consulting testing laboratory in conformance with County of California Code of Regulations (CCR), Title 24 as noted herein. Testing is paid for by County.

1. Earthwork (Chapter 18, Title 24)

    a. Earth Fill compaction.
    b. Inspection of footing and trenching excavations.
    c. Placing of backfill and compaction.

2. Concrete (Chapter 19, Title 24)

    a. Materials:

        1) Portland Cement Tests.
        2) Concrete Aggregates.
        3) Reinforcing Bars.
        4) Batch Plant Inspection.
        5) Core tests, if necessary.
        6) Admixtures.

b. Concrete Quality:

1) Proportions of Concrete.
2) Strength Tests of Concrete.

c. Concrete Inspection:

1) Job Site Inspection.
2) Batch Plant or Weighmaster Inspection (as needed).
3) Curing.
4) Construction Joints.

3. Structural Steel (Chapter 22, Title 24)

a. Materials:

1) Material Identification.
2) Structural Steel.

b. Tests and Inspection of Structural Steel (as needed):

1) Tests of Structural and Cold Formed Steel.
2) Shop Fabrication Inspection.
3) Welding Inspection.
4) Welding of Reinforcing Bars.

C. Special Inspections

4. Special Inspection in conformance with Section 1701 of the 2016 CBC is required and shall be provided for the following work, under supervision of an outside special inspection testing agency employed by the owner. See project specifications and project plans for individual requirements in addition to those listed below:

a. Structural concrete with an f'c greater than 2500 psi
b. Structural steel welding: Shop inspection in compliance with Section 6 of AWS D1.1 and field inspection per ASTM E164
c. Reinforcing steel (where f'c greater than 2500 psi or reinforcement is welded)
d. Welded reinforcing bars: CBC Section 1903.5.2
e. Use of structural epoxies
f. Use of A325, A325-SC., or A490-S.C. bolts
g. Bolts embedded in concrete or masonry
h. Testing, preparation and placement of all concrete masonry units
i. Soil compaction requirements
j. Adhesive anchors per CBC Section 1923.3.5
k. Drilled in expansion anchors per CBC Section 1925.3.5

D. Testing, Adjusting, and Balancing of Systems: These services shall be provided by approved testing organization in conformance with requirements for services specified in individual

sections pertaining to each system.

1.4 CONTRACTOR'S RESPONSIBILITIES

A. Cooperate with laboratory personnel; provide access to work and to manufacturer's operations.

B. Provide to laboratory adequate quantities of representational samples of materials proposed to be used and which require testing.

C. Provide to laboratory preliminary design mix proposed to be used for concrete, and other material mixes which require control by testing laboratory.

D. Furnish copies of products test reports as required.

E. Furnish incidental labor and facilities:

1. To provide access to work to be tested.
2. To obtain and handle samples at Project site or at source of product to be tested.
3. To facilitate inspections and tests.
4. For storage and curing of test samples.

F. Notify County's Inspector 48 hours in advance of operations to allow for laboratory assignment of personnel and scheduling of tests. When tests or inspections cannot be performed after such notice, reimburse the County for laboratory personnel and travel expenses incurred due to Contractor's negligence.

G. When additional testing services are needed for Contractor's convenience, employ and pay for services of separate, equally qualified independent testing laboratory; or make arrangements with County's laboratory and pay for additional samples and tests required for Contractor's convenience.

H. The County or its representative shall have the right to reject materials and workmanship which are defective or to require their correction. Rejected workmanship shall be satisfactorily corrected and rejected materials shall be removed from the premises without charge to the County. If Contractor does not correct such rejected work within a reasonable time, fixed by written notice, the County may correct same and charge the expense to Contractor.

I. Should it be considered necessary or advisable by the County at any time before final acceptance of the entire Work to make examination of work already completed by removing or tearing out same, Contractor shall, on request, promptly furnish necessary facilities, labor and materials. If such work is found to be defective in any respect due to fault of Contractor or subcontractor, shall defray all expenses of such examinations and of satisfactory reconstruction. If, however, such work is found to meet requirements of the Contract, additional cost of labor and material necessarily involved in the examination and replacement will be allowed the Contractor.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION (Not Used)

END OF SECTION

SECTION 01 50 00

TEMPORARY FACILITIES AND CONTROLS

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes

1. Dust Control.
2. Site Drainage.
3. Temporary Construction Fences.
4. Security.
5. Field Office
6. Temporary Utilities
7. Progress/Work Area Cleaning.
8. Project Signage.
9. Water Control/Dewatering.
10. Removal.

B. Related Sections

1. Refer to requirements of Division 00 and 01.
2. Section 01 11 50 - Environmental Procedures.
3. Section 01 14 00 - Special Project Procedures.

1.2 DUST CONTROL

A. Control dust migration from the work and staging areas. The County reserves the right at its sole discretion to direct the Contractor to perform specific maintenance and/or dust control of its work and laydown areas at no additional cost to the County. See Section 01 11 50 – Environmental Procedures for more information.

1.3 TRAFFIC CONTROL

A. Control traffic during the delivery of equipment. Any blocking of the driveway in excess of 10 minutes shall require 48 hours (2 working days) notice. At no time shall fire truck egress or access to hydrants be blocked.

1.4 SITE DRAINAGE

A. Maintain the work and staging areas in constant repair to maintain the grades and contours to provide free flow drainage. All watersheds and avenues of the work and staging area drainage shall be maintained, clean of debris, hazardous material, and dammed to prevent erosion of soil and silt. The County reserves the right at its sole discretion to direct the Contractor to perform specific maintenance to control site drainage of its work and laydown areas at no additional cost to the County.

1.5 TEMPORARY CONSTRUCTION FENCES

B1 Bid Set Update
07/25/2025

A. Contractor shall, upon approval, install temporary fences, barricades, or other suitable means to protect and prevent damage or injury to the building and the public that will still have access to the South County Regional Center and South County Chamber of Commerce. Review Site Staging sheet AS1.0 for noted fencing and permitted staging areas. Contractor is to take any additional fencing or security measures needed during the course of construction to keep the library secure and the public safe. Such fences or barricades shall not interfere with the other operations onsite.

1.6 GENERAL SECURITY

A. If Contractor deems it necessary, Contractor may provide watchmen and security equipment to protect Contractor's site office, equipment, material, construction equipment, or other portions of the Work.

B. On-site security firms and their personnel shall be subject to approval by the County.

iii. Contractors are responsible for ensuring that all site property gates are locked and secured when not needing to be opened or unlocked.

1.7 FIELD OFFICE

A. Provide a field office for Contractor's use. Location to be coordinated with the Site Staging sheet AS1.0 in the appendix. Prefabricated or mobile units with serviceable finishes, temperature controls, and foundations adequate for normal loading located within construction area as approved by the County. Comply with NFPA 241.

B. Maintain support facilities until near Substantial Completion. Remove before Substantial Completion. Personnel remaining after Substantial Completion will be permitted to use permanent facilities, under conditions acceptable to County.

C. Sufficient size to accommodate needs of construction personnel. Keep office clean and orderly. Furnish and equip offices and pay for services for following:
1. Furniture required for Project-site documents including file cabinets, plan tables, plan racks, bookcases, and copy machine
2. Conference room of sufficient size to accommodate meetings of 10 individuals. Provide electrical power service and 120-V ac duplex receptacles, with not less than 1 receptacle on each wall. Furnish room with conference table, chairs, and 4-foot- square tack board and 4'x6' whiteboard.
3. Provide a lockable private office of 10'x10' min size at one end of the office with two desks and chairs for the County PM and hired CM.
4. Drinking water and private toilet.
5. Coffee machine and supplies.
6. Heating and cooling equipment necessary to maintain a uniform indoor temperature of 68 to 72 deg F.
7. Lighting fixtures capable of maintaining average illumination of 20 fc at desk height.
8. Wi-Fi connectivity for Contractor and County Representative use.

1.8 TEMPORARY POWER

A. General Contractor will be allowed and is responsible for all work associated with connecting to the libraries existing electrical circuits for temporary construction power. Electrical power will need to be maintained in Electrical Room 228 for the internet and CCTV systems, and all exterior site lighting circuits. Provide 24 hrs notice prior to shutting down any circuits what would affect the internet services or exterior site lighting. The County will pay for electrical energy use during construction operations.

1.9 TEMPORARY WATER SERVICE

A. General Contractor may use County water for on-site potable water requirements as authorized by County's Representative. Contractor is responsible for temporary connections and maintaining the temporary system in a "leak free" condition during the work. General Contractor shall provide, maintain and pay for suitable quality water service required for non-potable construction operations, such as dust control.

1.10 PROGRESS/WORK AREA CLEANING

A. Maintain staging and work areas in a clean and orderly condition free from trash. "Trash" shall include all: food scraps, office garbage, construction rubbish/debris, waste/excess materials, shipping/packing materials, and windblown trash. Trash shall be collected and placed into containers daily at designated waste storage areas in locations approved by the County Representative and removed periodically for offsite disposal at Contractor's expense.

B. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed spaces and remote spaces, prior to enclosing the space.

C. Broom and vacuum clean interior areas prior to start of surface finishing and continue cleaning to eliminate dust.

D. Jobsite shall be maintained broom clean on a daily basis.

E. The Contractor shall use their own waste receptacles and not use the County trash containers.

F. The Contractor shall provide their own sanitary facilities.

1.11 PROJECT SIGNAGE

A. Allow no other signs, except those required by law, without approval of the County and those required to protect and direct the public around the work area.

1.12 WATER CONTROL/DEWATERING

A. Contractor shall perform water control and/or dewatering in coordination with the Work of other contractors so as not to impede or hinder their work.

B. Maintain excavations free of groundwater and surface water. Do not allow surface water to drain into excavations.

C. Protect Site from ponding or running water.

D. Protect vaults and hand holes from surface water.

E. Properly dispose of subsurface water from dewatering operations. Convey subsurface water from dewatering operations to surface and subsurface drainage systems for disposal. Protect drainage inlets and underground storm drainage system from sediment using sediment basins, straw bales or other suitable means.

1.13 REMOVAL

A. Remove temporary equipment, facilities, and materials prior to request for final inspection.

B. Clean and repair damage caused by installation and use of temporary work.

C. Remove all temporary site improvements. Except as noted below, all materials removed shall be disposed of off-site and the area shall be returned to the design as set forth in Contract Documents.

PART 2 PRODUCTS (Not Used)

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 conditions 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: Refer to Site Staging plan Sheet AS1.0 with markups regarding site staging and parking areas. Any deviations or alternates to this plan shall be approved in writing by the County CM or PM.

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 County Representative), County Representative, 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.

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 entire 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 to block viewing through construction fencing.

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 County Representative.

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 2022 CFC Chapter 33.
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. Comply with final cleaning requirements specified in Division 1 Section "Closeout Procedures."

END OF SECTION

SECTION 01 60 00

PRODUCT REQUIREMENTS

PART 1 GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. General product requirements.

B. Re-use of existing products.

C. Transportation, handling, storage and protection.

D. Product option requirements.

E. Substitution limitations and procedures.

F. Maintenance materials, including extra materials, spare parts, tools, and software.

PART 2 PRODUCTS

2.1 EXISTING PRODUCTS

A. Do not use materials and equipment removed from existing premises unless specifically required or permitted by the Contract Documents.

B. Unforeseen historic items encountered remain the property of the County; notify County promptly upon discovery; protect, remove, handle, and store as directed by County.

C. Existing materials and equipment indicated to be removed, but not to be re-used, relocated, reinstalled, delivered to the County, or otherwise indicated as to remain the property of the County, become the property of the Contractor; remove from site.

2.2 NEW PRODUCTS

A. Provide new products unless specifically required or permitted by the Contract Documents.

B. Do not use products made using or containing asbestos.

2.3 PRODUCT OPTIONS

A. Products Specified by Reference Standards or by Description Only: Use any product meeting those standards or description.

B. Products Specified by Naming One or More Manufacturers: Use a product of one of the manufacturers named and meeting specifications, no options or substitutions allowed.

C. Products Specified by Naming One or More Manufacturers with a Provision for Substitutions: Submit a request for substitution for any manufacturer not named.

2.4 PRODUCT SUBSTITUTIONS

A. **"Or Equal" Substitutions**: One Product Specified: Unless the Specifications state that no substitution is permitted, whenever in the Contract Documents any specific article, device, equipment, product, material, fixture, patented process, form, method, or type of construction is indicated or specified by name, make, trade name, or catalog number, with or without the words “or equal”, such specification shall be deemed to be used for the purpose of facilitating description of material, process, or article desired and shall be deemed to be followed by the words “or equal”. Contractor may, unless otherwise stated, offer any material, process, or article, which shall be substantially equal or better in every respect to that so indicated or specified and will completely accomplish the purpose of the Contract Documents.

B. **Two or More Products Specified:** When two or more acceptable products are specified for an item of the Work, the choice will be up to the Contractor. Contractor shall utilize the same product throughout the Project. If a timely substitution request as set forth in 2.5 below is not provided and an “or equal” substitution is requested, the County may consider the substitution only if the product specified is no longer commercially available.
   1. The burden of proof as to the equality of any material, process or article shall rest with the Contractor, and the Contractor shall submit all data substantiating a request for an “or equal” substitution item as provided in Section 3400 of the Public Contract Code, Specification Section 01 30 00 and other specific sections of the specifications prior to Award of Contract.

2.5 REQUEST FOR SUBSTITUTIONS

A. **Substitute Request Form:** Requests for substitutions of products, materials, or processes other than those specified must be made on the Substitution Request form attached herein. Requests must be submitted seven (7) calendar days prior to the date of the Bid Opening to be considered. An addendum will be issued three (3) calendar days prior to Bid Opening, identifying all equipment and materials deemed equivalent to those specified and approved by the County Representative.

B. **Substitution Request Content:** A substitution request must constitute a representation that the subcontractor/general contractor:
   1. Has investigated proposed product and determined that it is equal in quality and serviceability of the specified item.
   2. Will provide the same warranty for the substitution as for the specified product.
   3. Will coordinate installation and make changes to other work, which may be required for the work to be complete with no additional cost to General Contractor / Owner.
   4. Will be acceptable in consideration of the required design and artistic effect.
   5. Will require no excessive or more expensive maintenance including adequacy and availability of replacement parts.
   6. Waives claims for additional costs or time extension, which may subsequently become

apparent.

7. Will reimburse County for review or redesign services by the County Representative and re-approval fees by authorities, agencies, or the County.

C. **Substitution Submittal Procedure**:

1. Contractor shall furnish four (4) copies of the requested information sufficient to determine whether the proposed substitution is equivalent including, but not limited to, all drawings, specifications, samples, performance data, calculations, and other information as may be required to assist the County Representative and the County in determining whether the proposed substitution is acceptable.
2. The final decision shall be the County's. County may condition its approval of the substitution upon delivery to County of an extended warranty or other assurances of adequate performance of the substitution.
3. If the Substitution is Permitted: The Contractor shall be solely and directly responsible for fitting approved substituted material and equipment into the available space in a manner acceptable to the County and for the proper operation of the substituted equipment with all other equipment with which it may be associated. The Contractor shall bear all costs of meeting the above requirements for presenting a proposed substitution, and if the substitution is accepted, the Contractor must bear all costs involved including costs of the County Representative's and Engineer's services required in adapting the substituted material or equipment to the installation to the complete satisfaction of the County.

2.6 MAINTENANCE MATERIALS

A. Furnish extra materials, spare parts, tools, and software of types and in quantities specified in individual specification sections.

B. Deliver to Project site; obtain receipt prior to final payment.

PART 3 EXECUTION

3.1 TRANSPORTATION AND HANDLING

A. Coordinate schedule of product delivery to designated prepared areas in order to minimize site storage time and potential damage to stored materials.

B. Transport and handle products in accordance with manufacturer's instructions.

C. Transport materials in covered trucks to prevent contamination of product and littering of surrounding areas.

D. Promptly inspect shipments to ensure that products comply with requirements, quantities are correct, and products are undamaged.

E. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage.

F. Arrange for the return of packing materials, such as wood pallets, where economically feasible.

3.2 STORAGE AND PROTECTION

A. Designate receiving/storage areas for incoming products so that they are delivered according to installation schedule and placed convenient to work area in order to minimize waste due to excessive materials handling and misapplication.

B. Store and protect products in accordance with manufacturers' instructions.

C. Store with seals and labels intact and legible.

D. Store sensitive products in weather tight, climate controlled, enclosures in an environment favorable to product.

E. For exterior storage of fabricated products, place on sloped supports above ground.

F. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.

G. Prevent contact with material that may cause corrosion, discoloration, or staining.

H. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.

I. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

(See forms below)

SUBSTITUTION REQUEST FORM

WE HEREBY SUBMIT FOR YOUR CONSIDERATION THE FOLLOWING PRODUCT OR METHOD AS SUBSTITUTION FOR THE SPECIFIED ITEM FOR THIS PROJECT:

PROJECT: _____

SPECIFIED ITEM: _____

Section	Page	Paragraph	Description

PROPOSED CREDIT IF ANY: _____

The Undersigned requests consideration of the following: PROPOSED SUBSTITUTION;

Attached data Includes product description, specifications, drawings, photographs, performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.

Attached data also includes a description of changes to the Contract Documents, which the proposed substitution will require for its proper Installation.

The undersigned certifies:

1. The proposed substitution does not affect dimensions shown on drawings or code requirements indicated.
2. The proposed substitution will have no adverse effect on other trades or the construction warranty requirements.
3. Maintenance and service parts will be locally available for the proposed substitution.
4. Attach information for a minimum of three projects where the substitution has been used locally within a 100-mile distance of this project, including names, addresses and telephone numbers of County's who have accepted this product into their projects.
5. Attach all cost data with explanations if different from Specified or Drawing Item. Include in that explanation a discussion on quality of proposed substitution and cost differential.
6. The undersigned will pay for any subsequent Changes in incorporating the proposed substitution that were not apparent at the lime of approval into the Work, including compensation to the County Representative as described in Item 2 above and for changes required to the building design, including engineering design, detailing, and construction costs caused by the requested substitution.
7. ***FOR SUBSTITUTIONS SUBMITTED AFTER CONTRACT AWARD:*** The undersigned will compensate the County at a rate of $145.00 an hour for County Representative's review, investigation and comments whether or not the request is approved. The County Representative is herein defined as any of those firms or individuals listed by reference on the Drawings, including all Consultants identified herein.

The undersigned certifies to the County that the function, appearance and quality are equivalent or superior to the specified or drawing Item. Submitted by:

_____

Below is signature for use by County Representative only:

- ☐ Accepted as Noted
- ☐ Accepted
- ☐ Not Accepted
- ☐ Received Too Late

Date:_____By _____

Telephone:_____Date: _____

Remarks:

END OF SECTION

SECTION 01 70 00

CLOSEOUT REQUIREMENTS

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

1. Closeout Procedures
2. Project Records Documents
3. Operation and Maintenance Data
4. Guaranties, Warranties and Bonds
5. Spare Parts and Maintenance Materials
6. Certification of Recycled Content
7. Waste Management Report

B. RELATED REQUIREMENTS

1. Section 00 70 00: General Conditions
2. Section 01 01 00: Summary of Work
3. Section 01 12 00: Recycling
4. Section 01 30 00: Submittal Procedures
5. Section 01 50 00: Temporary Facilities and Controls
6. Section 01 74 00: Cleaning
7. Section 01 79 00: Demonstration and Training

1.2 CLOSEOUT PROCEDURES

A. Comply with procedures in Section 00 70 00 – General Conditions of the Contract for Construction, Items 8 and 9, for inspection and acceptance of the Work, payment and retention procedures.

B. When Contractor considers Work has reached substantial completion, submit written certification that Work is ready for inspection.

1.3 INSPECTION PROCEDURES

A. When each building/phase is in the opinion of the contractor, substantially complete, the Contractor shall call for a punch list inspection.

B. Punch List Preparation: Submit three copies of list. 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, or submit similar for approval by County.

1. Organize list of spaces in sequential order, starting with exterior areas first and proceeding to interior.
2. Organize items applying to each space by major element, including categories for ceiling, individual walls, floors, equipment, and building systems.

C. Inspection Procedures: In accordance with General Conditions Section 00 70 00, on receipt of a written request for inspection, the County Representative will schedule the inspection

if in the judgment of the County the project is not substantially complete, the County Representative will so advise the Contractor and discontinue the inspection.

1. The County Representative will repeat inspection when requested and assured that the work has been completed.
2. Results of the completed inspection will form the basis of requirements for final acceptance of the Work.

D. Final cleaning shall be completed prior to County's inspection and acceptance. Refer to Section 01 74 00 – Cleaning.

1.4 PROJECT RECORD DOCUMENTS (“AS-BUILTS”)

A. Maintain, on current basis, record drawings showing "as-built" conditions of project; subject to monthly review by County Representative and/or Inspector of Record. Identify each of the documents with a title "RECORD DOCUMENTS-JOB SET". Accuracy of records shall be such that future searches for items shown in the Contract Documents may reasonably rely on information obtained from the accepted record documents. Monthly pay estimates will not be processed without review and approval of record drawings by the County. Written confirmation that the as-builts have been properly updated shall be submitted with each pay application request. Final Acceptance of Work will not take place until record drawings are turned over to the County Representative.

B. Store Project record documents separate from those used for construction. Protect from deterioration and loss in a secure, fire-resistive location; provide access to the County Representatives during normal working hours. In the event of loss of recorded data, use means necessary to again secure the data to the County's acceptance; such means shall include, if necessary, in the opinion of the County, removal and replacement of concealing materials and in such case, replacements shall be to the standards originally specified.

C. Construction Photos: Provide color digital photography of site and construction throughout the progress of the Work.

1. Take photographs not more than 3 days prior to each scheduled estimate for payment, and as required to record the following events.
   a. Excavations
   b. Foundations
   c. Structural framing
   d. Enclosure of building
   e. Interior of building
   f. Final completion

2. Underground utilities: Before commencing backfilling of utilities or any other underground pipes, ducts, conduits, or structures, take photographs showing relationship of below ground utilities to structure(s) or other physical reference point. Photos are to be categorized by locations and indicating utilities shown. Provide photo(s) of all connections, crossings, stubs, or other critical points. If the Contractor neglects to take such photographs, Contractor shall uncover, at the Contractor's expense, the area(s) so neglected in order to provide the requisite photos. Provide a paper original and digital (PDF) composite Utility Site Plan with the number of each

photograph placed on the plan at the location the photo was taken from, and a mark indicating which way the camera was pointed. All numbers and marks shall be clear, legible, and neatly printed or digitally created. Photo binder and photo plan shall be considered part of the record documents.

D. Record Drawings: Maintain a clean, undamaged paper set of Contract Drawings and Shop Drawings. Mark the set to show the actual installation where the installation varies from the Work as originally shown. Mark whichever drawing is most capable of showing conditions fully and accurately. At time of installation, installed locations of work relating to aboveground and underground utilities, architectural, structural, heating, ventilation, air conditioning, plumbing, electrical, and other scopes of work as may be required, shall be recorded on the paper drawing set by Contractor, and reviewed with County Inspector. Timing of entries shall be within 24 hours after receipt of information. Do not conceal work until required information is recorded.

1. Information entered on print drawings shall be neat, legible, and emphasized by drawing "clouds" around changed items. Mark record sets with red erasable pencil; use other colors to distinguish between variations in separate categories of the work. Date entries.
2. Mark new information that is important to the County, but was not shown on Contract Drawings or Shop Drawings.
3. At a minimum, the following information shall be inserted and dimensioned on record documents where applicable:

    a. The exact horizontal and vertical location of all installations in their finished condition, including all electrical, plumbing and mechanical installations;
    b. All changes in construction, materials and installed equipment;
    c. Adequate dimensional data, both horizontal and vertical, to allow location of covered installations;
    d. The identification of changes authorized by Change Order and the number of that Change Order;
    e. All Requests for information and the number of that Request for Information;
    f. All Field Orders and the number of that Field Order;

4. Design of future modifications of the facility may require accurate information as to the final physical arrangement of items and location of utilities which are shown only schematically on the Drawings. Convert schematic layouts as follows:

    a. Show on the job set of record Drawings, by dimension accurate to within one inch, the centerline of each run of items such as are described in the description above. Clearly identify the item by accurate note such as "cast-iron drain", "galvanized water pipe", etc. Show, by symbol or note, the vertical location of the item ("under slab", "in ceiling plenum", "exposed", etc.). Make identification sufficiently descriptive that it may be related reliably to the Specifications.
    b. The County may waive the requirements for conversion of schematic layouts here, if in the County's judgment as advised by the County Representatives, such conversion serves no beneficial purpose. However, do not rely upon waivers being issued except as specifically issued in writing by the County.

5. Symbols and designations used in preparing record drawings shall match those used in Contract Drawings.
6. Locate and dimension work, including stubs for future connections, with reference to permanent landmarks or buildings and indicate approximate depth below finish grade.
7. Organize record drawing sheets into manageable sets, bind with durable paper cover sheets, and print suitable titles, dates and other identification on the cover of each set.

E. Record Specifications: Maintain one complete copy of the Project Specifications, including addenda, and one copy of other written construction documents such as Change Orders and modifications issued in printed form during construction. Mark these documents to show variations in actual work performed in comparison with the text of the Specifications and modifications. Give particular attention to substitutions, selection of options and similar information on elements that are concealed or cannot otherwise be readily discerned later by direct observation. Note related record drawing information and Product Data.

1. Upon completion of the work, submit record Specifications to the County Representative for the County's records.

F. Prior to final Acceptance of Work, submit Project record documents with transmittal letter containing date, Project title, Contractor's name and address, list of documents and signature of Contractor.

G. The Contractor shall have no responsibility for recording changes in the work subsequent to acceptance of the Work by the County, except for changes resulting from replacements, repairs, and alterations made by the Contractor as a part of his guarantee. No changes will be allowed without approval by the County.

1.5 OPERATION AND MAINTENANCE DATA

A. Provide data for Sections as required by the Contract Documents.

B. Preparation of data shall be done by personnel:

1. Trained and experienced in maintenance and operation of described products.
2. Familiar with requirements of this Section.
3. Skilled as technical writer to the extent required to communicate essential data.
4. Skilled as draftsman competent to prepare required drawings.

C. Submit one (1) electronic copy and three (3) hard copy sets of operating/maintenance manuals prior to Final Acceptance of Work, bound in 8-1/2 x 11 inch three ringside binders with durable plastic covers; with identification on, or readable through, front cover stating general nature of manual.

D. Provide separate volume for each system, with table of contents and index tabs for each volume; all material neatly typewritten; each volume containing:

1. Part 1: Directory listing names, addresses and telephone numbers of County Representative, County Inspector, Contractor, and all subcontractors; and index

furnishing complete information as to location in manual of emergency data regarding installation.

2. Part 2: Operation and maintenance instructions, arranged by system. For each system, give names, addresses and telephone numbers of subcontractors and suppliers; and include the following:

    a. Appropriate design criteria.
    b. List of equipment.
    c. Parts list; including complete nomenclature, current costs, and names and address of nearest vendor of parts.
    d. Detailed operating instructions in a logical sequence for each procedure. Include proper procedures in event of failure.
    e. Maintenance instructions, equipment, including routine maintenance cards with time frequency of routine maintenance noted.
    f. Maintenance instructions, finishes. Provide manufacturer's recommendation for types of cleaning agents and methods, cautions against agents and methods which are detrimental to the product and a recommended schedule for cleaning and maintenance.
    g. Copy of each Safety Data Sheet (SDS) received with products or materials delivered to the site for incorporation into the Project, for County future reference.
    h. Shop drawings and product data, including changes made during construction. Illustrate relations of component parts of equipment and systems and control and flow diagrams.
    i. Copies of Guaranties/Warranties. Note instances which might affect validity of warranties or bonds.

E. Extraneous Data: Where contents of manuals include manufacturers' catalog pages, clearly indicate precise items included in this installation and delete, or otherwise clearly indicate, manufacturer's data with which this installation is not concerned. Include catalog number, size and composition, color and texture designations and information required for reordering special manufactured products.

F. Review contents of manual with County Representative in full detail to explain all aspects of operations and maintenance in addition to requirements per Section 01 79 00 Demonstration and Training.

G. Final Acceptance of the Work will not take place until operation/maintenance manuals are delivered to the County Representative as required by Section 00 70 00, Item 8.02.

1.6 GUARANTIES, WARRANTIES AND BONDS

A. Standard Warranty: Guarantee Work executed under this Contract to be free of defects of workmanship and materials for a period of one year after completion and acceptance by the County. Refer to Section 00 70 00 – General Conditions of the Contract for Construction.

B. Additional Guaranties/Warranties: Provide additional guaranties/warranties (in excess of one year) where specifically required by pertinent Specification Sections.

1. Provide duplicate, notarized copies. Execute Contractor's submittals and assemble

documents executed by subcontractors, suppliers and manufacturers. Provide table of contents and assemble in binder with durable plastic cover.

C. Submit guaranties/warranties for review and approval prior to final payment.

1. For equipment put into use with County's permission during construction, submit guarantees/warranties within ten (10) days after first operation.

2. For items of work delayed beyond date of substantial completion, provide updated guaranty/warranty submittal within ten (10) days after acceptance, listing date of acceptance as start of guaranty/warranty period.

1.7 SPARE PARTS AND MAINTENANCE MATERIALS

A. Provide products, spare parts, and maintenance materials in quantities specified in each Section, in addition to that used for construction of work. Coordinate with County Representative and deliver to Project site. Provide with a detailed transmittal and obtain receipt prior to Final Acceptance of Work.

1.8 RECYCLING PLAN

A. Upon completion of Work, and prior to final payment, submit the completed Recycling Report summarizing the waste generated, sent to landfill, reused, and recycled which is attributed to Work of this Project.

B. Refer to Section 01 12 00 Recycling.

C. Final payment will not be made until completed Recycling Report is submitted by Contractor and received by the County.

1.9 FINAL ACCEPTANCE

A. Preliminary Procedures: Before requesting certification of final Acceptance of the Work complete the following:

1. Submit a certified copy of the County Representative's list of items to be completed or corrected, stating that each item has been completed or otherwise resolved for acceptance for final inspection.

B. Final Inspection: The County CM or PM, or County Representative will re-inspect the work upon receipt of notice that the work, including inspection list items from earlier inspections, "(punch- list)", has been completed, except items whose completion has been delayed because of circumstances acceptable to the County.

1. Upon completion of final inspection, the County Representative will prepare and submit to the County, a certificate of final acceptance, or advise the Contractor of work that is incomplete or of obligations that have not been fulfilled but are required for final acceptance.
2. If after the inspection, the County determines that the Work is complete, the County will

accept the Work per Section 00 70 00 General Conditions for the Contract for Construction, Item No. 8.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION (Not Used)

END OF SECTION

PUNCH-LIST FORM

☐ PRELIMINARY PUNCH-LIST
☐ FINAL PUNCH-LIST

PROJECT:	FROM:
TO:	DATE:

ITEM NUMBER	ROOM NUMBER	AREA	DESCRIPTION	COMPLETION DATE	A/E VERIFICATION

SECTION 01 73 00
EXECUTION REQUIREMENTS

PART I – GENERAL

1.1 SUMMARY

A. Section Includes general procedural requirements governing execution of the Work including, but not limited to, the following:
   1. General installation of products.
   2. Coordination of Owner-installed products.
   3. Progress cleaning.
   4. Starting and adjusting.
   5. Protection of installed construction.
   6. Correction of the Work.

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 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. 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.

3.4 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 Control."

3.5 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.

3.6 CORRECTION OF THE WORK

A. Repair or remove and replace defective construction. Restore damaged substrates and finishes. Comply with requirements in Division 1 Section "Cutting and Patching."
   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

SECTION 01 73 19
CUTTING AND PATCHING

PART I – GENERAL

1.1. SUMMARY

A. Section Includes:

1. Procedures for cutting and patching as may be required to complete the work of this project.

B. Related Requirements:

1. Section 01 50 00 – Temporary Facilities and Controls
2. Section 01 12 00 Recycling
3. Section 01 74 00 – Cleaning

1.2. DEFINITIONS

A. Cutting: Removal of in-place construction necessary to permit installation or performance of other Work.

B. Patching: Fitting and repair work required to restore surfaces to original conditions after installation of other Work.

1.3. QUALITY ASSURANCE

A. Structural Elements: Do not cut and patch structural elements without approval of Structural Engineer.

B. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that results in increased maintenance or decreased operational life or safety.

C. Miscellaneous Elements: Do not cut or patch miscellaneous elements or related components in a manner that could change their load-carrying capacity, that results in reducing their capacity to perform as intended, or that results in increased maintenance or decreased operational life or safety.

D. Visual Requirements: Do not cut or patch in a manner that results in visual evidence of cutting and patching. Do not cut and patch construction exposed on the exterior or in occupied spaces in a manner that would, in County Representative's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.

PART 2 - PRODUCTS

2.1 MATERIALS

A. General: Comply with requirements specified in other Sections.

B. In-Place Materials: Use materials identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.

1. If identical materials are unavailable or cannot be used, use materials that, when installed, will match the visual and functional performance of in-place materials.

PART 3 – EXECUTION

3.1 EXAMINATION

A. Examine surfaces to be cut and patched and conditions under which cutting and patching are to be performed.

1. Compatibility: Before patching, verify compatibility with and suitability of substrates, including compatibility with in-place finishes or primers.
2. Proceed with installation only after unsafe or unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Temporary Support: Provide temporary support of Work to be cut.

B. Protection: Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.

C. Adjoining Areas: Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.

D. Existing Utility Services and Mechanical/Electrical Systems: Where existing services/systems are required to be removed, relocated, or abandoned, bypass such services/systems before cutting to prevent interruption to occupied areas.

3.3 PERFORMANCE

A. General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.

1. Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.

B. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original installer, comply with original installer's written recommendations.

1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots as small as possible, neatly to size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
2. Proceed with patching after construction operations requiring cutting are complete.

C. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other Work. Patch with durable seams that are as invisible as possible. Provide materials and comply with installation requirements specified in other Sections.

1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate integrity of installation.

2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.

   a. Clean, piping, conduit, and similar features before applying paint or other finishing materials.
   b. Restore damaged pipe covering to its original condition.

D. Cleaning: Clean areas and spaces where cutting and patching are performed. Completely remove paint, mortar, oils, putty, and similar materials.

END OF SECTION

SECTION 01 74 00

CLEANING

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

1. Perform cleaning and disposal work as specified. This Section forms a part of all other Sections of the specifications and shall be coordinated with such additional cleaning and disposal requirements as may be specified in other Sections.

B. Related Requirements:

1. Section 00 70 00 – General Conditions
2. Section 01 11 50 – Environmental Procedures
3. Section 01 12 00 – Recycling
4. Section 01 50 00 – Temporary Facilities and Controls
5. Pertinent Specification Sections – Specific requirements for cleaning.

1.2 CLEANING IN GENERAL

A. Contractor shall at all times keep premises free from accumulations of waste material or rubbish caused by Contractor's employees or work, or employees or work of subcontractors, and shall remove rubbish from and about areas of Work and Contractor's and subcontractors' tools, scaffolding and surplus materials and shall leave the Work “broom clean", or its equivalent, except as hereinafter specified. In case of dispute between Contractor and other contractors employed on or about the work areas, as to responsibility for removal of rubbish, etc., or in case debris is not promptly removed as herein required, the County may remove rubbish, etc., and back charge the Contractor.

B. At all times, Project working area and site shall be kept clean and orderly. Dirt, debris, waste, rubbish and disused implements and equipment shall be removed frequently and not allowed to accumulate more than 24 hours. Flammable and toxic materials shall not be stored in structures.

1.3 FINAL CLEANING

A. Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to the condition expected in a normal, commercial building cleaning and maintenance program. Comply with manufacturer's instructions.

B. Complete the following cleaning operations before requesting inspection for Substantial Completion.

1. Within Contract limits, clean interior and exterior surfaces exposed to view to a dust-free condition, free of stains, films and similar foreign substances; remove temporary labels, polish transparent and glossy surfaces, leave concrete floors broom clean and vacuum carpeted and soft surfaces.
2. Clean equipment and fixtures to sanitary condition, clean or replace filters of mechanical equipment. Remove excess lubrication and other substances. Clean light

fixtures and lamps.

3. Clean roofs, gutters, downspouts and drainage systems.
4. Glass: Clean all transparent materials, including mirrors and glass in doors and windows, interior and exterior, affected by Work of this Project; including removal of foreign material from glass. Remove glazing compound and other substances that are noticeable vision- obscuring materials. Replace chipped or broken glass and other damaged transparent materials.

C. Clean the site, including landscape development areas, of rubbish, litter and foreign substances. Sweep paved areas broom clean; remove stain, spills and other foreign surfaces; rake clean other surfaces.

D. Remove waste and surplus materials, rubbish and construction facilities from Project and from site.

E. Dust, dirt, stains, hand marks, paint spots, and like defects shall be completely removed from surfaces. Metal surfaces shall be cleaned, using only non-corrosive and non-abrasive materials.

F. Pest Control: Engage an experienced licensed exterminator to make a final inspection, and rid the project of rodents, insects and other pests.

G. Final Inspection: Deficient cleaning operations, as determined by the County, shall be immediately corrected as directed.

H. Replace all air filters after start up.

1.4 DISPOSAL

A. Under no circumstances shall rubbish or waste material be disposed of in site fills or backfills. Comply with all provisions of the Recycling Plan and do not bury debris or excess materials on the project property. Remove all metal, construction debris, etc. from the top four (4) inches of soil at all areas to receive topsoil and/or planting within the secured perimeter, including but not limited to "no man's land". Comply with regulations of authorities having jurisdiction and safety standards for cleaning. Do not burn waste materials. Do not discharge volatile, harmful or dangerous materials into drainage system. Debris, rubbish, and waste or surplus material shall be removed from the project property daily and legally disposed of.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION (Not Used)

END OF SECTION

SECTION 01 74 19
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. Recycling non-hazardous demolition and construction waste.
   2. Disposing of non-hazardous demolition and construction waste.

B. Related Sections include the following:
   1. Division 1 Section “Temporary Facilities and Controls” for environmental-protection measures during construction.
   2. Division 1 Section “Selective Demolition” for disposition of waste resulting from partial demolition of buildings, structures, and site improvements.

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 for 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 PERFORMANCE GOALS

A. General: Develop waste management plan that results in end-of-Project rates for salvage/recycling of 75% percent by weight of total waste generated by the Work.

1.5 SUBMITTALS

A. Waste Management Plan: Submit 3 copies of plan within 30 days of date established for the Notice to Proceed.

B. Submittals:
   1. Waste Reduction Calculations: Before request for Substantial Completion, submit 3 copies of calculated end-of-Project rates for salvage, recycling, and disposal as a percentage of total waste generated by the Work.
   2. Record of Donations: Indicate receipt and acceptance of salvageable waste donated to individuals and organizations. Indicate whether organization is tax exempt.
   3. Records of Sales: Indicate receipt and acceptance of salvageable waste sold to individuals and organizations. Indicate whether organization is tax exempt.
   4. Recycling and Processing Facility Records: Indicate receipt and acceptance of recyclable waste by recycling and processing facilities licensed to accept them. Include manifests, weight tickets, receipts, and invoices.

C. Landfill and Incinerator Disposal Records. Indicate receipt and acceptance of waste by landfills and incinerator facilities licensed to accept them. Include manifests, weight tickets, receipts, and invoices.

1.6 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 Managements 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 and 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.

PART 2 PLAN IMPLENTATION

A. General: Implement waste management plan as approved by County Representative. Provide handling, containers, storage, signage, transportation, and other items as required to implement waste management plan during the entire duration of the Contract.
   1. Comply with Division 1 Section “Temporary Facilities and Controls” for operation, termination, and removal requirements.

B. Training: Train workers, subcontractors, and suppliers on proper waste management procedures, as appropriate for the Work occurring at Project site.
   1. Distribute waste management plan to everyone concerned within 3 days of submittal return.
   2. Distribute waste management plan to entities when they first begin work on-site. Review plan procedures and locations established for salvage, recycling, and disposal.

C. Site Access and Temporary Controls: Conduct waste management operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
   1. Designate and label specific areas on Project site necessary for separating materials that are to be salvaged, recycled, reused, donated, and sold.
   2. Comply with Division 1 Section "Temporary Facilities and Controls" for controlling dust and dirt, environmental protection, and noise control.

PART 3 DEMOLITION WASTE

3.1 SALVAGING DEMOLITION WASTE

A. Salvaged Items for Reuse in the Work:
   1. Clean salvaged items.
   2. Pack or crate items after cleaning. Identify contents of containers.
   3. Store items in a secure area until installation.
   4. Protect items from damage during transport and storage.
   5. Install salvaged items to comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make items functional for use indicated.

B. Salvaged Items for Sale and Donation: Not permitted on Project site.

C. Salvaged Items for Owner's Use:
   1. Coordinate item(s) with owner's representative on-site for determination of items and disposition.

D. Doors and Hardware: Brace open end of door frames. Except for removing door closers, leave door hardware attached to doors.

3.2 RECYCLING DEMOLITION AND CONSTRUCTION WASTE, GENERAL

A. General: Recycle paper and beverage containers used by on-site workers.

B. 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 received or processor.

3.3 DISPOSAL OF WASTE

A. General: Except for items or materials to be salvaged, recycled, or other reused, remove waste materials from Project site and legally dispose of them in a landfill or in 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 legal dispose of them.

END OF SECTION

SECTION 01 79 00
DEMONSTRATION AND TRAINING

PART I – GENERAL

1.1 SUMMARY

A. This Section includes administrative and procedural requirements for instructing Owner's personnel, including the following:
   1. Demonstration of operation of systems, subsystems, and equipment.
   2. Training in operation and maintenance of systems, subsystems, and equipment.

B. Related Sections include the following:
   3. Division 1 Section "Project Management and Coordination" for requirements for pre-instruction conferences.
   4. Other Sections for specific requirements for demonstration and training for products in those Sections.

1.2 SUBMITTALS

A. Instruction Program: Submit two (2) copies of outline of instructional program for demonstration and training, including a schedule of proposed dates, times, length of instruction time, and instructors' names for each training module. Include learning objective and outline for each training module.
   1. At completion of training, submit 1 complete training manual(s) for Owner's use.

B. Qualification Data: For instructor.

C. Attendance Record: For each training module, submit list of participants and length of instruction time.

D. Evaluations: For each participant and for each training module, submit results and documentation of performance-based test.

1.3 QUALITY INSURANCE

A. Instructor Qualifications: A factory-authorized service representative, complying with requirements in Division 1 Section "Quality Requirements," experienced in operation and maintenance procedures and training.

B. Pre-Instruction Conference: Conduct conference at Project site to comply with requirements in Division 1 Section "Project Management and Coordination." Review methods and procedures related to demonstration and training including, but not limited to, the following:
   1. Inspect and discuss locations and other facilities required for instruction.
   2. Review and finalize instruction schedule and verify availability of educational materials, instructors' personnel, audiovisual equipment, and facilities needed to avoid delays.
   3. Review required content of instruction.
   4. For instruction that must occur outside, review weather and forecasted weather conditions and procedures to follow if conditions are unfavorable.

1.4 COORDINATION

A. Coordinate instruction schedule with Owner's operations. Adjust schedule as required to minimize disrupting Owner's operations.

B. Coordinate instructors, including providing notification of dates, times, length of instruction time, and course content.

C. Coordinate content of training modules with content of approved emergency, operation, and maintenance manuals. Do not submit instruction program until operation and maintenance data has been reviewed and approved by County Representative.

PART 2 – PRODUCTS

2.1 INSTRUCTION PROGRAM

A. Program Structure: Develop an instruction program that includes individual training modules for each system and equipment not part of a system, as required by individual Specification Sections.

B. Training Modules: Develop a learning objective and teaching outline for each module. Include a description of specific skills and knowledge that participant is expected to master.

PART 3 – EXECUTION

3.1 PREPARATION

A. Assemble educational materials necessary for instruction, including documentation and training module. Assemble training modules into a combined training manual.

B. Set up instructional equipment at instruction location.

3.2 INSTRUCTION

A. Facilitator: Engage a qualified facilitator to prepare instruction program and training modules, to coordinate instructors, and to coordinate between Contractor and Owner for number of participants, instruction times, and location.

B. Engage qualified instructors to instruct Owner's personnel to adjust, operate, and maintain systems, subsystems, and equipment not part of a system.

C. Scheduling: Provide instruction at mutually agreed on times. For equipment that requires seasonal operation, provide similar instruction at start of each season.
   1. Schedule training with Owner with at least seven (7) days' advance notice.

D. Evaluation: At conclusion of each training module, assess and document each participant's mastery of module by use of a written performance-based test, if necessary.

E. Cleanup: Collect used and leftover educational materials and give to Owner. Remove instructional equipment. Restore systems and equipment to condition existing before initial training use.

END OF SECTION

COUNTY OF SAN LUIS OBISPO
DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION

CONTRACT DOCUMENT – VOLUME II
TECHNICAL SPECIFICATIONS

FOR

ARROYO GRANDE LIBRARY REMODEL PROJECT

PAGE LEFT BLANK INTENTIONALLY

Special Notices and Provisions

- There will be a **Mandatory Site Walk on Thursday, October 2nd, 2025 at 10:00am PST to 11:00am PST**. The mandatory Site Walk will start promptly at 10:00am with the site and the Library remaining open for site inspections until 3:00pm. The mandatory portion of the Site Walk is expected to last an hour. The County Library's Dept has moved out of the building. General Contractors and associate subcontractor trades are highly encouraged to take this opportunity to visualize the existing conditions in the facility and to take photos.
- An updated, separate copy of Sheet AS1.0 **(Appendix G)** from the planset has been included to clarify the site access, security, material storage, concrete washout, and staging areas as they relate to the remodel scope for this project.
- Per the County Building Standards **(Appendix C)**, the HVAC Controls are to be provided by Delta Controls as they are necessary components of project design to match those of the county's standardized facility infrastructure. All references within the plans and specifications to Pelican controls should be removed and replaced with reference to Delta Controls. The Delta Controls drawings (MC1.0 – R-1) are included in the bid package.
- The County ITD Standards (**Appendix D**, version4.0, dated September 2021) apply to each of the communications locations (ITD Standard 3.6) designated on the plans by an open triangle. Existing wiring except for the yellow CCTV cabling shall be removed and new Cat 6A as noted in the County Standards shall be installed. Remove references to ITD cabinet and homerun all new communications cabling to the MDI room.
- The Landscape plan provided **(Appendix H)** is for the planter areas disturbed by the fire water utility line and the patio popout. Plan to re-use existing landscape water valve locations to feed new drip irrigation to the new planting layout.
- Per the county's contract with the design team, the design team, including all subconsultants, are not allowed to bid on any construction work. See Exhibit C in Appendix J

REISS DESIGN STUDIO, PC

Central California Office

3055 Duncan Lane, Suite A
San Luis Obispo, California 93401

(805) 706-0645
www.reissdesignstudio.com

Northern Idaho Office

414 Church Street, Suite 305
Sandpoint, Idaho 83864

(208) 826-0645
www.reissdesignstudio.com

ARROYO GRANDE LIBRARY REMODEL #320196

800 W Branch Street, Arroyo Grande, CA 93420

CONSTRUCTION SPECIFICATIONS - Date: April 04, 2024

Revised: July 25, 2025

B1

PROJECT OWNER:
The County of San Luis Obispo, Public Works Department
976 Osos Street, Room 207
San Luis Obispo, CA 93408

PROJECT NAME:
Arroyo Grande Library Remodel #320196

PROJECT ARCHITECT:

Reiss Design Studio, PC
Shana Reiss, President, Lic. C-32912
3055 Duncan Road, Suite A
San Luis Obispo, CA 93401
(805) 706-0645
shana@reissdesignstudio.com

CONTRIBUTORS:

Civil Engineer of Record
Walsh Engineering
Matt Walsh, PE QSD/P, Lic. C79026
1108 Garden Street, Suite 202-204
San Luis Obispo, CA 93401
Phone: (805) 319-4948
Email: matt@walshengineering.net

Fire Protection Engineer of Record
Ptrutner Fire Protection Engineering, Inc.
Paul Trutner, PE CA No. 1934
2470 Stearns Street Suite 280
Simi Valley, CA 93063
Phone: (805) 297-3100
Email: paul@ptrutnerfpe.com

B1 Bid Set Update 07/25/2025

Structural Engineer of Record
Ashley & Vance Engineering, Inc.
Charles Ashley, PE S5258
1229 Carmel Street
San Luis Obispo, CA 93401
Phone: (805) 545-0010
Email: charles@ashleyvance.com

Mechanical & Plumbing Engineer of Record
BMA Mechanical +
Brandon Rodgers, Lic. M33682
689 Tank Farm, Suite 240
San Luis Obispo, CA 93401
Phone: (805) 544-4269
Email: brandonr@bmaslo.com

Electrical Engineer of Record
Gray Electrical Consulting + Engineering, Corp.
Heather Gray, Lic. E18927
2529 Professional Parkway, Suite A - PO Box #368
Santa Maria, CA 93455
Phone: (805) 361-0525
Email: heather@gececorp.com

B1 Bid Set Update 07/25/2025

CONSTRUCTION SPECIFICATIONS
TABLE OF CONTENTS

USER DOCUMENTS
- 00 00 20 Project Information
- 00 03 00 Table of Contents

DIVISION 00 - PROCUREMENT & CONTRACTING REQUIREMENTS
Provided by Owner

DIVISION 01 - GENERAL REQUIREMENTS
Provided by Owner

DIVISION 02 - EXISTING CONDITIONS
- 02 41 19 Selective Demolition

DIVISION 03 - CONCRETE
- 03 30 00 Cast-In-Place Concrete

DIVISION 04 - MASONRY
- 04 20 00 Unit Masonry

DIVISION 05 - METALS
- 05 50 00 Metal Fabrications

DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES
- 06 10 00 Rough Carpentry
- 06 16 00 Sheathing
- 06 40 23 Interior Architectural Woodwork

DIVISION 07 - THERMAL AND MOISTURE PROTECTION
- 07 18 00 Traffic Bearing Waterproof Surfacing
- 07 21 00 Thermal Insulation
- 07 50 00 Membrane Roofing
- 07 62 00 Sheet Metal Flashing and Trim

DIVISION 08 - OPENINGS
- 08 11 13 Hollow Metal Doors and Frames
- 08 14 00 Flush Wood Doors
- 08 36 00 Sectional Overhead Doors
- 08 40 00 Entrances and Storefronts
- 08 51 13 Aluminum Windows
- 08 60 00 Skylights
- 08 71 00 Door Hardware
- 08 80 00 Glazing
- 08 92 00 Louvers and Vents

DIVISION 09 - FINISHES
- 09 21 13 Portland Cement Plastering
- 09 29 00 Gypsum Board Assembl
- 09 30 00 Tiling
- 09 51 00 Acoustical Ceilings
- 09 65 00 Resilient Flooring
- 09 65 13 Resilient Base and Accessories
- 09 68 13 Tile Carpeting
- 09 91 00 Painting
- 09 93 00 Staining and Transparent Finishing

B1

B1

B1 Bid Set Update 07/25/2025

DIVISION 10 - SPECIALTIES
10 14 00 Signage
10 21 13 Toilet Compartments
10 28 13 Toilet Accessories
10 44 00 Fire Protection Specialties

DIVISION 21 - FIRE SUPPRESSION
21 03 00 Fire Suppression

DIVISION 22 - PLUMBING
22 00 00 Plumbing

DIVISION 23 - HEATING, VENTILATING, AND AIR CONDITIONING (HVAC)
23 00 00 HVAC
23 00 13 General Mechanical Requirements
23 01 30 HVAC System Cleaning Specifications

DIVISION 26 - ELECTRICAL
26 05 00 Common Work Results for Electrical
26 05 01 Selective Electrical Demolition
26 05 19 Low-Voltage Electrical Power Conductors and Cables
26 05 26 Grounding and Bonding of Electrical Systems
26 05 33 Raceways and Boxes for Electrical Systems
26 05 53 Identification of Electrical Systems
26 09 43 Network Lighting Controls
26 24 16 Panelboards and Loadcenters
26 27 26 Wiring Devices
26 28 16 Enclosed Switches and Circuit Breakers

DIVISION 28 - ELECTRONIC SAFETY AND SECURITY
28 13 53 Intrusion Detection
28 31 00 Fire Detection & Alarm

DIVISION 32 - EXTERIOR IMPROVEMENTS
32 80 00 Irrigation
32 90 00 Planting

END OF TABLE OF CONTENTS

B1 Bid Set Update 07/25/2025

DIVISION 10 - SPECIALTIES
10 14 00 Signage
10 21 13 Toilet Compartments
10 28 13 Toilet Accessories
10 44 00 Fire Protection Specialties

DIVISION 21 - FIRE SUPPRESSION
21 03 00 Fire Suppression

DIVISION 22 - PLUMBING
22 00 00 Plumbing

DIVISION 23 - HEATING, VENTILATING, AND AIR CONDITIONING (HVAC)
23 00 00 HVAC
23 00 13 General Mechanical Requirements
23 01 30 HVAC System Cleaning Specifications

DIVISION 26 - ELECTRICAL
26 05 00 Common Work Results for Electrical
26 05 01 Selective Electrical Demolition
26 05 19 Low-Voltage Electrical Power Conductors and Cables
26 05 26 Grounding and Bonding of Electrical Systems
26 05 33 Raceways and Boxes for Electrical Systems
26 05 53 Identification of Electrical Systems
26 09 43 Network Lighting Controls
26 24 16 Panelboards and Loadcenters
26 27 26 Wiring Devices
26 28 16 Enclosed Switches and Circuit Breakers

DIVISION 28 - ELECTRONIC SAFETY AND SECURITY
28 13 53 Intrusion Detection
28 31 00 Fire Detection & Alarm

DIVISION 32 - EXTERIOR IMPROVEMENTS
32 80 00 Irrigation
32 90 00 Planting

END OF TABLE OF CONTENTS

SECTION 02 41 19
SELECTIVE DEMOLITION

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. Selective Site Demolition:

1. Demolition of designated site improvements including paving, curbing, site walls, and utility structures.
2. Protection of site work and adjacent structures.
3. Disconnection, interruption, capping, and removal of utilities as applicable.
4. Pollution control during building demolition, including noise control.
5. Removal and legal disposal of materials.
6. Construction staging to coordinate with Regional Center to minimize impacts to that portion of the building/ site remaining operational. Accessible parking and access to the Regional Center needs to be maintained throughout the project as it relates to site staging and construction for this project (there may be a separate parking lot project occurring concurrently, which may have separate impacts to the Regional Center that are not in the scope of this project to mitigate).

B. Selective Building Demolition:-

1. Selective demolition of interior partitions, systems, and building components designated to be removed.
2. Selective demolition of exterior facade, structures, and components designated to be removed.
3. Protection of portions of building adjacent to or affected by selective demolition.
4. Removal of abandoned utilities and wiring systems. Disconnection, interruption, capping, and removal of utilities as applicable.
5. Notification to Owner of schedule of shut-off of utilities which serve occupied spaces. Coordinate with Regional Center to minimize impacts to that portion of the building/ site remaining operational.
6. Pollution control during selective demolition, including noise control.
7. Removal and legal disposal of materials.

C. Hazardous Materials: Refer to Appendix in Project Manual.

1.3. SUBMITTALS

A. Submit a plan of action for selective demolition for review and approval by Owner and Architect.

1.4. 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. Pre-demolition Conference: Conduct conference at Project Site as noted in Division 01 Section “Project Management and Coordination.”

1.5. PROJECT CONDITIONS

A. Notify Architect of discrepancies between existing conditions and Drawings before proceeding with selective demolition.

B. Hazardous Materials: It is known hazardous materials will be encountered in the Work.

1. Remove as part of this contract.
2. See Appendix in Project Manual for associated Reports.

C. Storage or sale of removed items or materials on-site is not permitted.

1.6. 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.

2. PRODUCTS (Not Used)

3. EXECUTION

3.1. SELECTIVE DEMOLITION

A. Demolition Operations: Do not damage building elements and improvements indicated to remain. Items of salvage value, not included on schedule of salvage items to be returned to Owner, shall be removed from structure. Storage or sale of items at project site is prohibited.

B. Utilities: Locate, identify, disconnect, and seal or cap off utilities in buildings to be demolished. 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.

C. Shoring and Bracing: Provide and maintain interior and exterior shoring and bracing as needed.

D. Occupied Spaces: Do not close or obstruct streets, walks, drives or other occupied or used spaces or facilities without the written permission of the Owner and the authorities having jurisdiction. Do not interrupt utilities serving occupied or used facilities without the written permission of the Owner and authorities having jurisdiction. If necessary, provide temporary utilities.

E. Operations: Cease operations if public safety or remaining structures are endangered. Perform temporary corrective measures until operations can be continued properly.

F. Security: Provide adequate protection against accidental trespassing. Secure project after work hours.

G. Restoration: Restore finishes of patched areas.

END OF SECTION

SECTION 04 20 00
UNIT MASONRY

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. Provide unit masonry construction at retaining wall at Patio. Refer to Structural sheets, including sheet S1.2, and detail 20/S3.1 for requirements.

1.3. SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

B. Shop Drawings: Submit shop drawings indicating material characteristics, details of construction, connections, and relationship with adjacent construction.
1. Shop drawings shall be prepared and stamped by a qualified engineer licensed in the jurisdiction of the project.

C. Samples: Submit two representative samples of each material specified indicating visual characteristics and finish. Include range samples if variation of finish is anticipated.

1.4. QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

1.5. WARRANTY

A. Manufacturer's Warranty: Provide manufacturer's standard limited warranty against defects in materials and workmanship.

B. Installer’s Warranty: 1 year

2.PRODUCTS - Refer to Structural Drawings.

3.EXECUTION

3.1. INSTALLATION

A. Installation of Masonry Assemblies:
1. Comply with PCA Recommended Practices for Laying Concrete Block, Brick Institute of America BIA Tech Notes, and NCMA TEK Bulletins.
2. Comply with cold weather and warm weather protection procedures as recommended in BIA Tech Notes.
3. Provide fire-rated assemblies complying with ASTM E 119.
4. Sawcut units when required. Maintain uniform joint width. Provide full bed, head and collar joints except at weepholes.
5. Install lintels and accessories in masonry construction.
6. Coordinate installation of flashings.
7. Comply with applicable codes and regulations for spacing of ties and horizontal reinforcing.

8. Provide expansion and control joints in accordance with BIA and NCMA recommendations.
9. Remove and replace damaged units.
10. Clean brick using bucket and brush method, BIA Tech Note 20.
11. Clean concrete masonry by dry brushing, NCMA TEK No. 28.

END OF SECTION

SECTION 05 50 00
METAL FABRICATIONS

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. Provide metal fabrications per Structural sheets, including sheet S1.2.

1.3. SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

B. Shop Drawings: Submit shop drawings indicating material characteristics, details of construction, connections, and relationship with adjacent construction.
1. Shop drawings shall be prepared and stamped by a qualified engineer licensed in the jurisdiction of the project.

1.4. QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

1.5. WARRANTY

A. Manufacturer's Warranty: Provide manufacturer's standard limited warranty against defects in materials and workmanship.

B. Installer’s Warranty: 1 year.

2.PRODUCTS - Refer to Structural Drawings, including sheet S-1.2.

3.EXECUTION

3.1. INSTALLATION

A. Take field measurements prior to preparation of shop drawings and fabrication. Do not delay job; allow for cutting and fitting if field measurement not practical.

B. Form work true to line with sharp angles and edges. Weld continuously, grind flush and make smooth on exposed surfaces.

C. Install work plumb and level with hairline joints and ground flush welds.

D. Touch-up damaged coatings with shop primer and galvanize repair paint.

END OF SECTION

SECTION 06 10 00
ROUGH CARPENTRY

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. Provide rough carpentry per Structural Sheets - Refer to S-1.1 and S-1.2 specifically.

1.3. QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

B. Standards: Refer to sheet S-1.2, including “Rough Carpentry” section.

1.4. WARRANTY

A. Manufacturer's Warranty: Provide manufacturer's standard limited warranty against defects in materials and workmanship.

B. Installer’s Warranty: 1 year.

2.PRODUCTS - Refer to Structural Drawings.

3.EXECUTION

3.1. INSTALLATION

A. Securely attach rough carpentry work to substrate by anchoring and fastening as indicated.

B. Plywood: Comply with applicable recommendations contained in APA Form No. E30K, "APA Design/Construction Guide: Residential & Commercial"

C. Provide nailers, blocking and grounds where required. Set work plumb, level and accurately cut.

D. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials and systems in proper relation with adjacent construction. Coordinate with other work.

E. Comply with manufacturer's requirements for cutting, handling, fastening and working treated materials.

F. Restore damaged components. Protect work from damage.

END OF SECTION

SECTION 06 16 00
SHEATHING

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. Provide sheathing at wall assemblies per Structural Sheets - Refer to S-1.1 and S-1.2 specifically.

1.3. SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

1.4. QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

1.5. WARRANTY

A. Manufacturer's Warranty: Provide manufacturer's standard limited warranty against defects in materials and workmanship.

B. Installer’s Warranty: 1 year.

2.PRODUCTS - Refer to Structural Drawings.

3.EXECUTION

3.1. EXAMINATION

A. Do not begin installation until substrates have been properly constructed and prepared.

1. Examine framing spacing and alignment to determine if work is ready to receive sheathing.

B. If substrate 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, GENERAL

A. Install in accordance with manufacturer's instructions and in proper relationship with adjacent construction.

3.4. PROTECTION

A. Protect installed products until completion of project.

B. Touch-up, repair, or replace damaged products before Substantial Completion.

END OF SECTION

SECTION 06 40 23
INTERIOR ARCHITECTURAL WOODWORK

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. Provide interior finish carpentry, architectural woodwork, and countertops.

1.3. SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

B. Shop Drawings: Submit shop drawings indicating material characteristics, details of construction, connections, and relationship with adjacent construction.

C. Samples: Submit two representative samples of each material specified indicating visual characteristics and finish. Include range samples if variation of finish is anticipated.

D. Product Certificates: For each type of product, signed by product manufacturer.

E. Qualification Data: For Installer and fabricator.

1.4. QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

B. Standards: Architectural Woodwork Institute (AWI) ‘Custom Grade.’

C. Preinstallation Conference: Conduct conference at Project site to comply with requirements in Division 1 Section "Project Management and Coordination."

D. Fire-Retardant Treatment:
1. Lumber: AWPA C20, non-corrosive type.
2. Plywood: AWPA C27, non-corrosive type.
3. Particleboard: ASTM E 84, flame spread 20 or less.

E. Wood Products: Comply with the following:
1. Hardboard: AHA A135.4.
2. Medium-Density Fiberboard: ANSI A208.2, Grade MD-Exterior Glue.
3. Particleboard: ANSI A208.1, Grade M-2-Exterior Glue.
4. Softwood Plywood: DOC PS 1, Medium Density Overlay.
5. Hardwood Plywood and Face Veneers: HPVA HP-1.

F. Mock-Ups: Provide mock-up as required to demonstrate quality of workmanship of each type of finish carpentry.

1.5. 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. Warranty Period: 2 years

B. Installer’s Warranty: 1 year

2.PRODUCTS

2.1. MATERIALS

A. Interior Plastic Laminate Clad Casework:
1. Laminate: High pressure decorative laminate, NEMA LD-3: Wilsonart, Nevamar, or Formica
2. Grade: Standard
3. Laminate Color: Architect to select from standard colors
4. Face and Frame Style: TBD

B. Interior Casework Hardware and Auxiliary Materials:
1. Hardware Standard: ANSI/BHMA A156.9.
2. Hardware Finish and Base Metal: Satin stainless steel.

C. Interior Plastic Laminate Clad Countertops:
1. Laminate: High pressure decorative laminate, NEMA LD-3: Wilsonart, Nevamar, or Formica
2. Grade: Custom.
3. Core: As allowed by grade.
4. Laminate Color: Architect to select from standard colors
5. Edge: Laminate.

D. Slat Walls:
1. LVL per Structural
2. Grade: Premium.
3. Site Finish: TBD based upon stain samples

E. Interior Window Frames:
1. Species for Opaque Finish: Closed grain hardwood - match existing.
2. Site Finish: Opaque finish - match existing.

3.EXECUTION

3.1. INSTALLATION

A. Provide work to sizes, shapes, and profiles indicated. Install work to comply with quality standards referenced. Back prime work and install plumb, level and straight with tight joints; scribe work to fit.

B. Quality Standard: Install woodwork to comply with AWI standards for the same grade specified for type of woodwork involved.

C. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials and systems in proper relation with adjacent construction. Coordinate with work of other sections.

D. Comply with manufacturer's requirements for cutting, handling, fastening and working treated materials.

E. Repair minor damage, clean and protect.

END OF SECTION

SECTION 07 18 00
TRAFFIC BEARING WATERPROOF SURFACING
Dex-O-Tex Dex-Flex

1.GENERAL

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. The Owner has determined that the membrane decking at the balcony area is compromised and has been leaking. Refer to sheet A4.5, reference note #12. Existing deck membrane shall be stripped to subsurface, replaced and resurfaced. Replace damaged substructure and ceiling joists as necessary with like for like.

B. Provide all labor, materials, equipment and supervision as necessary to install a fluid-applied, polymer-modified, cementitious pedestrian traffic topping over concrete surfaces (if condition applies), as shown on the project drawings and as outlined in this specification.

1.3. RELATED WORK

A. Floor drains

1. Floor drains clean-outs, etc. should be of the "floor-flange" type as manufactured for use with composition floors by most major drain manufacturers. Drain flange shall be finished flush with substrate.

B. Insulation

1. Consult Crossfield Products Corp. for specific recommendation

C. Sheet metal flashing-Section 07-6000

1. Sheet metal flashing shall be minimum 26 gauge galvanized.
2. All joints or seams in the sheet metal shall overlapped approx. 3” and installed with a continuous bead of sealant with Dex-O-Tex Elastatex 500 flashing paste or approved equal, and comply with SMACNA Standard.
3. Dex-O-Tex Alternate Flashing may be considered under certain conditions. Consult Crossfield Products Corp. for specific recommendation.

D. Plywood substrate including framing and blocking

1. Plywood substrates shall be a minimum 5/8” A/C Exterior grade as per APA and installed in accordance with the APA standards.
2. OSB is not an acceptable substrate substitute. Consult Crossfield Products Corp. for specific recommendation.

E. Slope for drainage

1. Allow for a minimum 1/8 inch per foot slope to drain. This can be provided for in the substrate or by application of Dex-O-Tex A-81 Underlayment.
2. Care must be taken to provide adequate elevation at thresholds to interior spaces to provide for proper thickness to slope to drain.

1.4. SUBMITTALS

A. General: Submit the following in accordance with Conditions of Contract and Division 1 Specification Sections.

B. Submit manufacturer's technical data, application instructions, shop drawings and general recommendations for the waterproof co-polymer composition traffic topping waterproof surfacing system specified herein.

C. Samples for initial selection purposes in form of manufacturer's recommended installation procedures for specific application parameters.

D. Material certificates signed by manufacturer certifying that the waterproof co-polymer composition traffic topping waterproof surfacing system complies with requirements specified herein.

E. Maintenance Instructions: Submit manufacturer's written instructions for recommended maintenance practices.

1.5. QUALITY ASSURANCE

A. Installer Qualifications: Engage an experienced Installer or applicator who has specialized in installing the waterproof co-polymer composition traffic topping waterproof surfacing system types similar to that required for this Project and who is acceptable to manufacturer of primary materials.

B. Single-Source Responsibility: Obtain waterproof co-polymer composition traffic topping waterproof surfacing system materials, including primers, resins, hardening agents, and finish or sealing coats, from a single manufacturer.

C. Pre-Qualified Materials: Submit any request for alternative products for review two weeks prior to bid date. Any request for alternate products received after this date will not be considered.

1.6. DELIVERY, STORAGE AND HANDLING

A. Deliver materials in original packages and containers with seals unbroken and bearing manufacturer's labels containing brand name and directions for storage and mixing with other components.

B. Comply with manufacturer's directions for materials storage to prevent deterioration from moisture, heat, cold, direct sunlight, or other detrimental effects.

1.7. PROJECT CONDITIONS

A. Environmental Conditions: Comply with waterproof co-polymer composition traffic topping waterproof surfacing system manufacturer's directions for maintenance of ambient and substrate temperature, moisture, humidity, ventilation, and other conditions required to execute and protect work.

1.8. WARRANTY

A. Manufacturer's Warranty: Provide manufacturer's standard limited warranty against defects in materials and workmanship.

B. Installer’s Warranty: 5 year

2.PRODUCTS

2.1. MATERIALS

A. Troweled waterproof co-polymer composition traffic topping waterproof surfacing system shall be Dex-O-Tex Dex-Flex as manufactured by Crossfield Products Corp., in Rancho Dominguez, California Cibolo, TX and Roselle Park, New Jersey, or approved equal.

B. The trowel applied waterproof co-polymer composition traffic topping waterproof surfacing system shall be composed of a co-polymer bondcoat, Synthetic rubber waterproof membrane, and cementitious co-polymer traffic topping surfacing.

C. All resin binders and all rubber emulsions shall be compounded with neoprene or polyacrylate co-polymer liquids and shall have a minimum synthetic rubber content of 35% when tested by the dry cup method.

D. Aggregate for traffic surface coating shall be suitably graded, fine trap-rock passing a #20 mesh sieve and retained on a #40 mesh sieve.

E. Fabric used as reinforcement for waterproof membrane shall be 7-1/2 oz. Woven polypropylene fabric.

2.2. PROPERTIES

A. Colors: As indicated, or if not otherwise indicated, as selected by Architect from manufacturer's standard colors.

B. Physical Properties:

1. Provide a waterproof membrane system that meets or exceeds the listed minimum physical property requirements when tested according to the referenced standard test method in parentheses.

Thickness	Minimum 3/16”
Weight	1.5 lbs. psf.
Bond Shear Strength (ASTM C482) Dry	77 psi.
Wet	62 psi.
Coefficient of Static Friction Dry Rubber	1.03
Wet Rubber	0.99
Oily Rubber	1.09
Fire Resistance (MIL-PRF-23003)	Complies
Resistance to Oil (MIL-PRF-23003)	Complies
Bacteria and Fungus Resistance (ASTM G22)	No Growth/ no water penetration
Hydrostatic Pressure Resistance (ASTM D751)	240 psi.
Ozone Resistance (ASTM D1149)	No cracking, orating or water penetration (72 hrs. @ 100ppm 90ºF)
Dimensional Stability (ASTM D12040)	<0.5%
Elongation (ASTM D751)	1,1250% (membrane only unreinforced)
Chloride Ion Penetration (15% NaC1 @ 21 days)	None

3.EXECUTION

3.1. CONTRACTOR QUALIFICATIONS

A. Waterproof co-polymer composition traffic topping waterproof surfacing system shall be installed in strict accordance with the manufacturer's recommendations by a contractor trained and approved by the materials manufacturer and have a minimum five years experience in the application of similar materials.

3.2. INSPECTION

A. Examine the areas and conditions where the waterproof co-polymer composition traffic topping waterproof surfacing system is to be installed and notify the Architect of conditions detrimental to the proper and timely completion of the work. Do not proceed with the work until unsatisfactory conditions have been corrected by the Contractor in a manner acceptable to the Architect.

B. Moisture Content

1. Evaluate Level And Emission Of Moisture In The Substrate In Accordance With Astm D 7954, Astm E 1869, And Atm E 2170 Or Any Other Acceptable Means To Determine That Moisture Levels And Emission Rate Are Acceptable For Application Of Specified Waterproof Deck Covering System.

3.3. PREPARATION

A. Shot-Blast, Power Scarify, Grind, Sand or Clean as Required To Obtain Optimum Bond of Traffic Topping To Concrete.

B. Remove Sufficient Material To Provide a Sound Surface Free of Laitance, Glaze, Efflorescence, and any Bond-Inhibiting Curing Compounds or Form Release Agents.

C. Remove Grease, Oil, and Other Penetrating Contaminates.

D. Repair Damaged and Deteriorated Concrete to Acceptable Condition.

E. Leave Surface Free of Dust, Dirt, Laitance, and Efflorescence.

F. Provide Clean, Dry and Neutral Substrate for Application of the Traffic Topping Waterproof Surfacing System in Accordance With SSPC SP 13.

G. Materials:

1. Mix Aqueous Emulsions and Aggregate When Required as per Manufacturer's Instructions.
2. Prepare Materials According to Waterproof Membrane System Manufacturer's Instructions.

3.4. FIELD CONDITIONS

A. Traffic Topping Waterproof Surfacing System Shall Not Be Applied During Either Freezing or Inclement Weather, or When Such Weather Can Logically Be Expected.

3.5. APPLICATION

A. General: Apply Each Component of Waterproof Co-Polymer Composition Traffic Topping Waterproof Surfacing System According to Manufacturer's Directions To Produce a Uniform, Monolithic Surface of Thickness Indicated.

B. Apply Latex Co-Polymer Bonding Coat Over Entire Area.

C. Apply Reinforced Membrane at all Vertical Junctures. Embed Polypropylene Fabric Into Neoprene Membrane Liquid. Up all Vertical Surfaces a Minimum of 4". Treat all Details and Prepare for Application of Waterproof Membrane.

D. Apply Aqueous Neoprene Rubber Waterproof Membrane Solution With Fabric Reinforcement to Entire Area To Be Coated. Overlap all Seams a Minimum of 2 Inches.

E. Trowel Apply Two Coats of Polyacrylate Co-Polymer and Fine Aggregate Composition To Achieve a Smooth, Protective Coat.

F. Apply Finish Texture Coat to Desired Finish. Apply Additional Texture Coat to Ramps and High Use Areas.

G. NOTE: any Decorative Finishes Should Be Submitted With Physical Samples by Installation Contractor

3.6. CURING, PROTECTION AND CLEANING

A. Cure Waterproof Neoprene Co-Polymer Composition Traffic Bearing Roof Waterproof Surfacing Materials According to Manufacturer's Directions, Taking Care To Prevent Contamination During Application Stages and Before Completing Curing Process.

B. Close Application Area for a Minimum of 24 Hours.

END OF SECTION

DEX-O-TEX PRODUCT LINE
Crossfield Products Corp.
NJ 07204
www.dexotex.com
(908)-245-2800

3000 E. Harcourt Street
Rancho Dominguez, CA 90221

Tel: (310) 886-9100

Fax: (310) 886-9119

140 Valley Road
Roselle Park,

Tel:

Fax: (908)-245-2583

SECTION 07 21 00
THERMAL INSULATION

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. Provide thermal insulation.

1.3. SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

B. Submit building code compliance reports or test reports.

1.4. QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers and use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

1.5. WARRANTY

A. Manufacturer's Warranty: Provide manufacturer's standard limited warranty against defects in materials and workmanship.

B. Installer’s Warranty: 1 year.

2.PRODUCTS

2.1. MATERIALS

A. Blanket/Batt Insulation:

1. Manufacturer: Johns Manville or equal.
2. Application: R-20 thermal insulation in studs in exterior walls.
3. Application: R-30 thermal insulation at underside of roofs, over heated spaces and soffits. Maintain clear air space between existing exterior soffit venting and attic spaces.
4. Application: Batt insulation infill in all interior walls for reduction in sound transfer.
5. Type: Un-faced fiber batt insulation. Must be formaldehyde-free.

3.EXECUTION

3.1. INSTALLATION

A. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials and systems in proper relation with adjacent construction. Coordinate with work of other sections. Provide full thickness in one layer over entire area, tightly fitting around penetrations.

B. Protect existing and installed insulation.

END OF SECTION

SECTION 07 50 00
MEMBRANE ROOFING

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. Patch and Repair Existing Roof Membrane as needed to accommodate new mechanical at roof.

B. At this time, there are no known defects in the existing roof membrane system that require repair.

1.3. SUBMITTALS

A. Product Data:

1. Product and Material Safety Data Sheets for each product indicated.
2. Preparation instructions and recommendations.
3. Storage and handling requirements and recommendations.
4. Typical installation methods.
5. Sample copy of Manufacturer's warranty to be issued upon successful project completion.
6. Sample copy of the Installer's warranty.

B. Verification Samples: Two representative units of each type, size, pattern, and color. Product selection to include membrane, topping finish surface material, etc.

C. Shop Drawings: Include details of materials, construction, and finish. Include relationship with adjacent construction (flashing, etc.).

1.4. QUALITY ASSURANCE

A. Match existing roofing as these are patches. If existing manufacturer is unknown, must be compatible with existing roofing.

B. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with a minimum 20 years documented experience and be ISO 9001:2008 Certified.

C. Source Limitations: Provide each type of product from a single manufacturing source or approved by the primary roofing Manufacturer for compatibility to ensure uniformity.

D. Installer Qualifications:

1. Represents and warrants it is experienced in and qualified to perform the specified work and provide the necessary equipment, supervision, and trained workforce capable of completing the work in a safe, prompt, diligent, professional, and workmanlike manner in accordance with federal, state, and local laws, rules and regulations, this Specification and good roofing practice.
2. Thoroughly familiar with codes, regulations and standards governing the work to be performed and provide written proof of required licenses and permits prior to project commencement.
3. Approved by Manufacturer for application of Manufacturer's products and systems and in good standing at time of the work and coordinate with Manufacturer prior to bidding

and commencement of work regarding any Manufacturer's warranty to be issued upon successful completion of the Project.

4. Inspect project to examine actual job and site conditions and be familiar with local conditions and all things required to complete the work that will have a bearing on its costs and completion.
5. Ensure a trained foreman is onsite during application of coating system and any related work. Maintain a daily log of application activities and environmental conditions available on-site with copies of specification, TDS, and MSDS. Submit a copy of activity log to Manufacturer upon project completion.
6. Check wet film thickness during application of coatings to ensure achievement of required coverage rates.
7. In the event performance or completion of work will be delayed, Installer will notify the Owner, the Owner's Representative and Manufacturer in writing as soon as possible.
8. Deviations made from the Specifications must be submitted in writing by the Installer and approved in writing by the Specifier, Owner and Manufacturer.

1.5. DELIVERY, STORAGE, AND HANDLING

A. Deliver products to job site in Manufacturer's original unopened and undamaged containers bearing Manufacturer's original labels. Package labels must be clearly visible on pallets. Verify products are within Manufacturer's recommended shelf life.

B. Store and handle in strict compliance with manufacturer's written instructions and recommendations.

C. Protect from damage due to weather, excessive temperature, and construction operations.

D. Store and dispose of products and materials used on the project in accordance with federal, state, and local requirements for handling and disposal of such products and materials.

1.6. WARRANTY

A. Manufacturer's Warranty: Provide manufacturer's standard limited warranty against defects in materials and workmanship.

B. Installer’s Warranty: 5 year

1.7. FIELD QUALITY CONTROL

A. Contractor shall take photographs of representative roof areas, including detail work, before work commences, after the surface has been properly prepared, after all flashing and detail work has been performed, and after application of the coating system. Photographs shall be included in final warranty request.

2.PRODUCTS

2.1. MATERIALS

A. Manuf.: Johns Manville, or approved equal
B. Product/ Model #: PVC 60-mil or approved equal
C. Cal Green Standards: Specify cool roof products
D. Notes: Single Ply Roofing

3.EXECUTION

3.1. INSTALLATION, GENERAL

A. Install in accordance with manufacturer's instructions and in proper relationship with adjacent construction.

3.2. PROTECTION

A. Protect installed products until completion of project.

B. Touch-up, repair, or replace damaged products before Substantial Completion.

END OF SECTION

SECTION 07 62 00
SHEET METAL FLASHING AND TRIM

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. Provide flashing and sheet metal.

1.3. SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

B. Shop Drawings: Submit shop drawings indicating material characteristics, details of construction, connections, and relationship with adjacent construction.

C. Samples: Submit two representative samples of each material specified indicating visual characteristics and finish. Include range samples if variation of finish is anticipated.

1.4. QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

1.5. 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: 5 years.

B. Installer’s Warranty: 5 year.

2.PRODUCTS

2.1. MATERIALS

A. Flashing and Sheet Metal:

   1. Application: Metal counter flashing and base flashing.
   2. Application: Exterior wall flashing and expansion joints.
   3. Application: Gutters and downspouts.
   4. Metal: Zinc-coated steel: ASTM A 653, G90 hot-dip galvanized, 2-Coat 70% Fluoropolymer, 20-gauge (.0359 inch).

3.EXECUTION

3.1. INSTALLATION

A. Follow recommendations of SMACNA Sheet Metal Manual. Allow for expansion. Isolate dissimilar materials.

B. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials and systems in proper relation with adjacent construction and with uniform appearance. Coordinate with work of other sections.

C. Restore damaged components and finishes. Clean and protect work from damage.

END OF SECTION

SECTION 08 11 13
HOLLOW METAL DOORS AND FRAMES

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. Provide steel doors and frames per sheet A8.1.

1.3. SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

B. Shop Drawings: Submit shop drawings indicating material characteristics, details of construction, connections, and relationship with adjacent construction.

1.4. QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

1.5. WARRANTY

A. Manufacturer's Warranty: Provide manufacturer's standard limited warranty against defects in materials and workmanship.

B. Installer’s Warranty: 5 year.

2.PRODUCTS

2.1. MATERIALS

A. Interior Steel Frames:

1. Steelcraft, or approved equal (if approved equal, it must match the Steelcraft hinge and lock layout).
2. Material: Minimum 16 gauge, Grade III extra heavy duty pre-finished steel.
3. Type: Flush Frame, welded
4. Finish: Factory finish, provide standard color samples for Architect selection.

B. Exterior Steel Frames:

1. Steelcraft, or approved equal (if approved equal, it must match the Steelcraft hinge and lock layout).
2. Material: Minimum 14 gauge, Grade III extra heavy duty w/G90 Zinc coating complying with ASTM A525.
3. Type: Flush Frame, Welded, pre-assembled.
4. Finish: Factory finish, provide standard color samples for Architect selection.

C. Exterior Steel Frames - Fire Rated:

1. Steelcraft, or approved equal (if approved equal, it must match the Steelcraft hinge and lock layout).
2. Fire Rating: 3 hours (2 hours minimum)
3. Material: Minimum 14 gauge, Grade III extra heavy duty w/G90 Zinc coating complying with ASTM A525.
4. Type: Flush Frame, Welded, pre-assembled.
5. Finish: Factory finish, provide standard color samples for Architect selection.

D. Exterior Steel Doors:

1. Steelcraft, or approved equal (if approved equal, it must match the Steelcraft hinge and lock layout).
2. Material: Minimum 16 gauge, Grade III extra heavy duty pre finished steel w/G90 Zinc coating complying with ASTM A525.
3. Style: F, FG, FG2 (refer to plans)
4. Finish: Factory finish, provide standard color samples for Architect selection.

E. Exterior Steel Doors - Fire Rated:

1. Steelcraft, or approved equal (if approved equal, it must match the Steelcraft hinge and lock layout).
2. Fire Rating: 3 hours (2 hours minimum)
3. Material: Minimum 16 gauge, Grade III extra heavy duty pre finished steel w/G90 Zinc coating complying with ASTM A525.
4. Style: L20
5. Finish: Factory finish, provide standard color samples for Architect selection.

3.EXECUTION

3.1. INSTALLATION

A. Fabricate work to be rigid, neat and free from seams, defects, dents, warp, buckle, and exposed fasteners. Install doors per manufacturer’s recommendations.

B. Hardware: Prepare doors and frames to receive hardware on final schedule. Provide for 3 silencers on single doorframes; 2 on double doorframes.

C. Touch-up damaged coatings ready to receive finish painting.

END OF SECTION

SECTION 08 14 00
FLUSH WOOD DOORS

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. Provide flush wood doors - refer to A8.1.

1.3. SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

B. Samples: Submit two representative samples of each material specified indicating visual characteristics and finish. Include range samples if variation of finish is anticipated.

1.4. QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

1.5. WARRANTY

A. Manufacturer's Warranty: Provide manufacturer's standard limited warranty against defects in materials and workmanship.

B. Installer’s Warranty: 1 year.

2.PRODUCTS

2.1. MATERIALS

A. Interior Flush Wood Doors:
1. Type: Solid core.
2. Thickness: 1-3/4 inches thick.
3. Grade: Match existing. Stiles and rails to be bonded to core.
4. Must match Steelcraft hinge and lock layout.
5. Finish: Opaque.
6. Finish Application: Shop primed and site finished.
7. Auxiliary Materials: Louvered panels per Sheet A8.1.

3.EXECUTION

3.1. INSTALLATION

A. Pre-fit doors to frames. Pre-machine doors for hardware listed on final schedules. Factory bevel doors.

B. Install doors with not more than 1/8 inch clearance at top and sides, 1/4 inch at bottom. Comply with NFPA 80 for rated assemblies.

C. Adjust, clean, and protect.

END OF SECTION

SECTION 08 36 00
SECTIONAL OVERHEAD DOORS
521 SERIES ALUMINUM SECTIONAL OVERHEAD DOORS

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.

B. Also refer to 08 80 00 Glazing section; Structural and Electrical Drawings.

1.2. SECTION INCLUDES

A. Glazed Aluminum Sectional Overhead Doors.

B. Electric Operators and Controls.

C. Operating Hardware, tracks, and support.

1.3. REFERENCES

A. ANSI/DASMA 102 - American National Standard Specifications for Sectional Overhead Type Doors.

1.4. DESIGN / PERFORMANCE REQUIREMENTS

A. Wiring Connections: Electrical is specifying a 230V, 1-Phase motor - sometimes this can be ran by 208V, 1-Phase, however, this has to be confirmed with the manufacturer. Currently the only viable option in the below specs in 115V, 1-phase, 60hz. Through the submittal process, we are requesting clarification if 208V, 1-Phase can be accommodated.

1. 115 volts, single phase, 60 Hz.
2. 230 volts, single phase, 60 Hz.

B. Single-Source Responsibility: Provide doors, tracks, motors, and accessories from one manufacturer for each type of door. Provide secondary components from source acceptable to manufacturer of primary components.

1.5. SUBMITTALS

A. Product Data: Manufacturer's data sheets on each product to be used, including:

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. Manufacturer's Certificates: Certify products meet or exceed specified requirements.

D. Operation and Maintenance Data.

1.6. 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.

C. Products Requiring Electrical Connection: Listed and classified by Underwriters Laboratories, Inc. acceptable to authority having jurisdiction as suitable for purpose specified.

1.7. 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.

1.8. WARRANTY

A. Manufacturer's Warranty: Provide manufacturer's standard limited warranty against defects in materials and workmanship.

B. Installer’s Warranty: 5 year.

2.PRODUCTS

2.1. MANUFACTURERS

A. Acceptable Manufacturer (or approved equal): Overhead Door Corp., 2501 S. State Hwy. 121, Suite 200, Lewisville, TX 75067. ASD. Tel. Toll Free: (800) 275-3290. Phone: (469) 549-7100. Fax: (972) 906-1499. Web Site: www.overheaddoor.com. E-mail: sales@overheaddoor.com.

B. Requests for substitutions will be considered in accordance with provisions of Section 01600.

2.2. GLAZED ALUMINUM SECTIONAL OVERHEAD DOORS

A. Glazed Sectional Overhead Doors: 521 Series Aluminum Doors by Overhead Door Corporation.

1. Door Assembly: Stile and rail assembly secured with 1/4 inch (6 mm) diameter through rods.
   a. Panel Thickness: 1-3/4 inches (44 mm).
   b. Center Stile Width: 2-11/16 inches (68 mm)
   c. End Stile Width: 3-5/16 inches (84 mm)
   d. Intermediate Rail Pair Width: 3-11/16 inches (94 mm).
   e. Top Rail Width: 3-3/4 inches (95 mm).
   f. Bottom Rail Width: 3-3/4 inches (95 mm).
   g. Aluminum Panels: 0.050 inch (1.3 mm) thick, aluminum.
   h. Stiles and Rails: 6063 - T6 aluminum.
   i. Springs: 25,000 cycles.
   j. Glazing: 1/4 inch (6 mm) Tempered glass.
2. Finish and Color:
   a. Powder Coating Finish: Color as selected by Architect from manufacturer’s standard colors.
3. Windload Design: n/a
4. Hardware: Galvanized steel hinges and fixtures. Ball bearing rollers with hardened steel races.
5. Lock: n/a
6. Weatherstripping: n/a
7. Track: Full Vertical Track - provide track as recommended by manufacturer to suit

loading required and clearances available.

8. Electric Motor Operation: Provide UL listed electric operator, size and type as recommended by manufacturer to move door in either direction at not less than 2/3 foot nor more than 1 foot per second. Operator shall meet UL325/2010 requirements for continuous monitoring of safety devices.
   a. Entrapment Protection: Required for momentary contact, includes radio control operation. Selection to be provided via submittal process.
      1) Pneumatic sensing edge up to 18 feet (5.5 m) wide. Constant contact only complying with UL 325/2010.
      2) Electric sensing edge monitored to meet UL 325/2010.
      3) Photoelectric sensors monitored to meet UL 325/2010.
   b. Operator Controls:
      1) Key operated control stations with open, close, and stop buttons.
      2) Surface mounting.
      3) Interior location.
   c. Special Operation:
      1) Vehicle detector operation.
      2) Explosion and dust ignition proof control wiring.
      3) Provide a lock-out provision at the control panel so can be protected from unwanted use.

3.EXECUTION

3.1. EXAMINATION

A. Do not begin installation until openings have been properly prepared.

B. Verify wall openings are ready to receive work and opening dimensions and tolerances are within specified limits.

C. Verify electric power is available and of correct characteristics.

D. 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 and track 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.

F. Coordinate installation of electrical service. Complete power and control wiring from disconnect to unit components.

3.4. CLEANING AND ADJUSTING

A. Adjust door assembly to smooth operation and in full contact with weatherstripping.

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

SECTION 08 40 00
ENTRANCES AND STOREFRONTS

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.

B. Also refer to sections 08 71 00 Door Hardware and 08 80 00 Glazing.

1.2. SUMMARY

A. This Section covers Architectural Aluminum Storefront Systems.

1.3. PERFORMANCE REQUIREMENTS

A. General Performance:
1. Product to comply with the specified performance requirements without failure due to defective manufacture, fabrication, installation, or other defects in construction, as determined by testing of aluminum storefront systems representing those indicated for this project.
2. Aluminum storefront systems shall withstand movements of supporting structure including, but not limited to, story drift, twist, column shortening, long-term creep, and deflection from uniformly distributed and concentrated live loads.
3. Failure includes any of these events:
    a. Thermal stresses transferring to building structure
    b. Glass breakage
    c. Loosening or weakening of fasteners, attachments, and other components
    d. Failure of operating units

B. Delegated Design:
1. Design aluminum storefront systems, including comprehensive engineering analysis by a qualified professional engineer, using performance requirements and design criteria indicated.

C. Wind Loads: n/a (Interior Application)

D. Air Leakage: n/a (Interior Application)

E. Water Resistance: n/a (Interior Application)

F. Uniform Load Structural:
1. A static air design load of 20 psf (958 Pa) shall be applied in the positive and negative direction in accordance with ASTM E 330.
2. There shall be no deflection in excess of L/175 of the span of any framing member.
3. At a structural test load equal to 1.5 times the specified design load, no glass breakage or permanent set in the framing members in excess of 0.2% of their clear spans shall occur.

1.5. SUBMITTALS

A. Product Data:
1. For each type of aluminum-framed storefront system indicated, include:
    a. Construction details
    b. Material descriptions

c. Dimensions of individual components and profiles
d. Hardware
e. Finishes
f. Installation instructions

2. Recycled Content:
   a. Provide documentation that aluminum has a minimum of 50% mixed pre- and post-consumer recycled content.
3. Environmental Product Declaration (EPD):
   a. Include a Type III Product-Specific EPD created from a Product Category Rule.

B. Shop Drawings:
1. Include - Plans, Elevations, Sections, & Details
2. Hardware
3. Attachments to other work
4. Operational clearances
5. Installation details

C. Samples for Initial Selection:
1. Provide samples for units with factory-applied color finishes.
2. Provide samples of hardware and accessories involving color selection.

D. Entrance Door Hardware Schedule:
1. Schedule per A8.1.
2. Schedule shall detail fabrication and assembly of entrance door hardware, including procedures and diagrams.
3. Coordinate final entrance door hardware schedule with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of entrance door hardware.

1.6. QUALITY ASSURANCE

A. Installer Qualifications:
1. Installer must have successfully installed the same or similar units required for the project and other projects of similar size and scope.

B. Manufacturer Qualifications:
1. Manufacturer must be capable of providing aluminum-framed storefront systems that meet or exceed performance the stated performance requirements.
2. Manufacturer must document this performance by the inclusion of test reports and calculations.

C. Source Limitations:
1. Obtain aluminum-framed storefront system through one source from a single manufacturer.

1.7. PROJECT CONDITIONS

A. Field Measurements:
1. Verify actual dimensions of aluminum-framed storefront openings by field measurements before fabrication.
2. Indicate measurements on shop drawings.

1.8. WARRANTY

A. Manufacturer's Warranty: Provide manufacturer's standard limited warranty against defects in materials and workmanship.

B. Warranty Period:
1. Five years from Date of Substantial Completion of the project provided however that in no event shall the Limited Warranty begin later than six months from date of shipment by manufacturer.

2.PRODUCTS

2.1. MANUFACTURERS

A. Product:
1. Kawneer Company, Inc., or approved equal
2. Trifab® VersaGlaze® 450 Framing System, 1-3/4" Sightline, or approved equal
a. 1-3/4" x 4-1/2" (44.5 mm x 114.3 mm) nominal dimension
b. Non-thermal
c. Glass: center
d. Screw spline, shear block, stick, or punched opening fabrication

2.2. MATERIALS

A. Aluminum Extrusions:
1. Alloy and temper recommended by aluminum storefront manufacturer for strength, corrosion resistance, and application of required finish.
2. Not less than 0.070" (1.8 mm) wall thickness at any location for the main frame
3. Complying with ASTM B221: 6063-T6 alloy and temper
4. Recycled Content:
a. Shall have a minimum of 50% mixed pre- and post-consumer recycled content.

B. Fasteners:
1. Nonmagnetic stainless steel or other materials must be non-corrosive and compatible with aluminum members, trim hardware, anchors, and other components.

C. Anchors, Clips, and Accessories:
1. Aluminum, nonmagnetic stainless steel, or zinc-coated steel or iron complying with ASTM B 633 for SC 3 severe service conditions or other suitable zinc coating.
2. Anchors, clips, and accessories shall provide sufficient strength to withstand the design pressure indicated.

D. Sealant:
1. For sealants required within fabricated storefront system, provide permanently elastic, non-shrinking, and non-migrating type recommended by sealant manufacturer for joint size and movement.

E. Tolerances:
1. References to tolerances for wall thickness and other cross-sectional dimensions of storefront members are nominal and in compliance with AA Aluminum Standards and Data.

2.3. STOREFRONT FRAMING SYSTEM

A. Brackets and Reinforcements:

1. Manufacturer's standard high-strength aluminum with non-staining, non-ferrous shims for aligning system components.

B. Fasteners and Accessories:
1. Manufacturer's standard corrosion-resistant, non-staining, non-bleeding fasteners and accessories must be compatible with adjacent materials.
2. Where exposed, fasteners and accessories shall be stainless steel.

C. Perimeter Anchors:
1. When steel anchors are used, provide insulation between steel material and aluminum material to prevent galvanic action.

D. Packing, Shipping, Handling, and Unloading:
1. Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.

E. Storage and Protection:
1. Store materials so that they are protected from exposure to harmful weather conditions.
2. Handle material and components to avoid damage.
3. Protect material against damage from elements, construction activities, and other hazards before, during, and after installation.

2.4. GLAZING SYSTEMS

A. Glazing to meet requirements in Division 08 Glazing Section.

B. Glazing Gaskets:
1. Manufacturer's standard compression types
2. Replaceable, extruded EPDM rubber

C. Spacers and Setting Blocks:
1. Manufacturer's standard elastomeric type

D. Bond-Breaker Tape:
1. Manufacturer's standard TFE-fluorocarbon or polyethylene material to which sealants will not develop adhesion.

E. Glazing Sealants for structural-sealant-glazed systems as recommended by manufacturer for joint type, and as follows:
1. Structural Sealant:
a. ASTM C 1184
b. Single-component neutral-curing silicone formulation that is compatible with the system components with which it comes in contact
c. Specifically formulated and tested for use as structural sealant and approved by a structural-sealant manufacturer for use in the aluminum-framed systems indicated
d. Color: Black

2.5. DOOR SYSTEMS

A. Provide door within AL-1 per A8.1.

2.6. ALUMINUM FINISHES

A. Factory Finishing:

1. Kawneer Permacoat™ AAMA 2604, Powder Coating (Color TBB - provide standard color options to Architect for selection), or approved equal

3.EXECUTION

3.1. EXAMINATION

A. With installer present, examine openings, substrates, structural support, anchorage, and conditions for compliance with requirements for installation tolerances and other conditions affecting performance of work:
   1. Verify rough opening dimensions.
   2. Verify levelness of sill plate.
   3. Verify operational clearances.
   4. Wood Frame Walls:
      a. Wood frame walls must be dry, clean, sound, well nailed, free of voids, and without offsets at joints.
      b. Ensure that nail heads are driven flush with surfaces in opening and within 3" (76.2 mm) of opening.

B. Proceed with installation only after correcting unsatisfactory conditions.

3.2. INSTALLATION

A. Comply with Drawings, Shop Drawings, and manufacturer's written instructions for installing aluminum-framed storefront system, accessories, and other components.

B. Install aluminum-framed storefront system so that components:
   1. Are level, plumb, square, and true to line
   2. Are without distortion
   3. Are anchored securely in place to structural support
   4. Are in proper relation to other adjacent construction

C. Separate aluminum and other corrodible surfaces from sources of corrosion or electrolytic action at points of contact with other materials.

3.3. PROTECTION AND CLEANING

A. Protection:
   1. Protect installed product’s finish surfaces from damage during construction.

B. Cleaning:
   1. Clean glass immediately after installation.
      a. Comply with glass manufacturer's written recommendations for final cleaning and maintenance.
      b. Remove non-permanent labels and clean surfaces.
   2. Clean aluminum surfaces.
   3. Avoid damaging protective coatings and finishes.
   4. Remove excess sealants, glazing materials, dirt, and other substances.
   5. Repair or replace damaged installed products.
   6. Remove and replace glass that has been broken, chipped, cracked, abraded, or damaged during the construction period.
   7. Remove construction debris from project site and legally dispose of debris.

END OF SECTION

B1

~~SECTION 08 51 13~~
~~ALUMINUM WINDOWS~~

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. Provide aluminum storefront windows. **If possible to reuse existing windows, notify Architect.**

1.3. SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

B. Recycled Content: Provide documentation that aluminum has a minimum of 50% mixed pre- and post-consumer recycled content with a sample document illustrating project specific information that will be provided after product shipment.

C. Shop Drawings: Submit shop drawings indicating material characteristics, plans, elevations, sections, details of construction, connections, and relationship with adjacent construction. Verify openings by field measurements before fabrication and indicate measurements on Shop Drawings.

D. Standard color options for Architect selection.

OMIT

B1

1.4. QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

B. In-field testing and reports in accordance with manufacturer’s recommendations.

1.5. WARRANTY

A. Manufacturer's Warranty: Provide manufacturer's standard limited warranty against defects in materials and workmanship.

B. Installer’s Warranty: 5 year

2.PRODUCTS

2.1. MANUFACTURER

A. Product:

1. Manufacturer: Kawneer, or approved equal
2. Aluminum Storefront Window
3. Kawneer Series AA®6400/6500/6600 Windows, or approved equal
4. Match existing frame dimensions and function of windows. If not possible, please indicate.
5. Kawneer Permacoat™ AAMA 2604, Powder Coating (Color TBD - provide standard color options to Architect for selection), or approved equal
6. Provide interior locking capability on operable components

B1 Bid Set Update 07/25/2025

2.2. MATERIALS

A. Aluminum Extrusions: Alloy and temper recommended by aluminum window manufacturer for strength, corrosion resistance, and application of required finish and not less than 0.070" (1.8) wall thickness at any location for the main frame and sash members.

1. Recycled Content: Shall have a minimum of 50% mixed pre- and post-consumer recycled content.

B. Thermal Barrier: The thermal barrier shall be Kawneer, or approved equal consisting of two parallel glass fiber-reinforced nylon strips installed continuously and mechanically bonded to the aluminum.

C. Fasteners: Aluminum, nonmagnetic stainless steel or other materials to be non-corrosive and compatible with aluminum window members, trim, hardware, anchors, and other components.

D. Sealant: For sealants required within fabricated windows, provide window manufacturer's standard, permanently elastic, non-shrinking, and non-migrating type recommended by sealant manufacturer for joint size and movement.

2.3. WINDOW FRAMING SYSTEM

A. Series AA®6400/6500/6600 Windows, or approved equal - Fixed - unless possible to match function of existing window units, notify Architect.

2.4. GLAZING

A. Glass and Glazing Materials: Refer to Division 08 Section Glazing.

B. Glazing System: Glazing method shall be a dry type in accordance with manufacturer's standards. Exterior glazing shall be TPE gasket. Interior glazing shall be snap-in type glazing beads with an interior TPE gasket in accordance with AAMA 702 or ASTM C864.

OMIT

B1

2.5. HARDWARE

A. General: None required

2.6. ACCESSORIES

A. Spacers, Setting Blocks, Gaskets, and Bond Breakers: Manufacturer's standard permanent, non-migrating types in hardness recommended by manufacturer, compatible with sealants, and suitable for system performance requirements.

B. Framing system gaskets, sealants, and joint fillers as recommended by manufacturer for joint type.

C. Sealants and joint fillers for joints at perimeter of window system.

D. Perimeter Anchors: When steel anchors are used, provide insulation between steel material and aluminum material to prevent galvanic action.

2.7. FABRICATION

A. Framing Members, General: Fabricate components that, when assembled, have the following characteristics:

1. Profiles that are sharp, straight, and free of defects or deformations.
2. Accurately fit joints; make joints flush, hairline and weatherproof.
3. Means to drain water passing joints, condensation within framing members, and moisture migrating within the system to exterior.
4. Physical and thermal isolation of glazing from framing members.

B1 Bid Set Update 07/25/2025

5. Accommodations for thermal and mechanical movements of glazing and framing to maintain required glazing edge clearances.
6. Provisions for field replacement of glazing.
7. Fasteners, anchors, and connection devices that are concealed from view to greatest extent possible.

B. Window Framing: Fabricate components for assembly using manufacture's standard installation instructions.

C. After fabrication, clearly mark components to identify their locations in Project according to Shop Drawings.

D. Thermally Improved Construction: Fabricate aluminum window framing with an integral, concealed, low-conductance thermal barrier; located between exterior materials and window members exposed on interior side; in a manner that eliminates direct metal-to-metal contact. Thermal barriers shall be designed in accordance with AAMA TIR A8.

1. Thermal Barrier: The thermal barrier shall be Kawneer, or approved equal consisting of two parallel glass fiber-reinforced nylon strips installed continuously and mechanically bonded to the aluminum.

3.EXECUTION

3.1. EXAMINATION

A. Examine openings, substrates, structural support, anchorage, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of work. Verify rough opening dimensions, levelness of sill plate and operational clearances. Examine wall flashings, vapor retarders, water and weather barriers, and other built-in components to ensure a coordinated, weather tight window installation.

1. Wood Frame Walls: Dry, clean, sound, well nailed, free of voids, and without offsets at joints. Ensure that nail heads are driven flush with surfaces in opening and within 3 inches (76.2 mm) of opening.
2. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2. INSTALLATION

A. Comply with Drawings, Shop Drawings, and manufacturer's written instructions for installing windows, hardware, accessories, and other components.

B. Install aluminum framed window system level, plumb, square, true to line, without distortion or impeding thermal movement, anchored securely in place to structural support, and in proper relation to wall flashing and other adjacent construction.

C. Set sill members in bed of sealant or with gaskets, as indicated, for weather tight construction.

D. Install aluminum framed window system and components to drain condensation, water penetrating joints, and moisture migrating within system to the exterior.

E. Separate aluminum from dissimilar materials to prevent corrosion or electrolytic action at points of contact.

3.3. FIELD QUALITY CONTROL

A. Testing Agency: Engage a qualified testing agency to perform tests and inspections and prepare test reports.

1. Testing and inspecting agency will interpret tests and state in each report whether tested work complies with or deviates from requirements.

B. Testing Services: Testing and inspecting of installed windows shall take place as follows:

OWT B1

1. Testing Methodology: Testing Standard shall be per AAMA 502 including reference to ASTM E 783 for Air Infiltration Test and ASTM E 1105 for Water Penetration Test.
   a. Air Infiltration Test: Conduct test in accordance with ASTM E 783 at a minimum uniform static test pressure of 1.57 psf (75 Pa) for CW or 6.24 psf (300 Pa) for AW. The maximum allowable rates of air leakage for field testing shall not exceed 1.5 times the project specifications.
   b. Water Infiltration Test: Water penetration resistance tests shall be conducted in accordance with ASTM E 1105 at a static test pressure equal to 2/3 the specified water test pressure.
2. Testing Extent: Architect shall select window units to be tested as soon as a representative portion of the project has been installed, glazed, perimeter caulked and cured. Conduct tests for air infiltration and water penetration with manufacturer's representative present.
3. Test Reports: Shall be prepared according to AAMA 502.

3.4. CLEANING AND PROTECTION

A. Clean aluminum surfaces immediately after installing windows. Avoid damaging protective coatings and finishes. Remove excess sealants, glazing materials, dirt, and other substances.

B. Clean glass immediately after installing windows. Comply with manufacturer's written recommendations for final cleaning and maintenance. Remove nonpermanent labels, and clean surfaces.

C. Remove and replace glass that has been broken, chipped, cracked, abraded, or damaged during construction period.

D. Protect window surfaces from contact with contaminating substances resulting from construction operations. In addition, monitor window surfaces adjacent to and below exterior concrete and masonry surfaces during construction for presence of dirt, scum, alkaline deposits, stains, or other contaminants. If contaminating substances do contact window surfaces, remove contaminants immediately according to manufacturer's written recommendations.

OMIT

B1

END OF SECTION

B1 Bid Set Update 07/25/2025

SECTION 08 60 00
SKYLIGHTS

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.

B. Also refer to section 08 80 00 Glazing.

1.2. SUBMITTALS

A. Product Data: Include construction details, material descriptions, dimensions and profiles of components, and finishes for metal-framed skylights.

B. Shop Drawings: For metal-framed skylights. Include plans, elevations, sections, details, and attachments to other work as required.

C. Samples for Initial Selection: Manufacturer’s color charts consisting of sections of units showing the full range of colors available for factory-finished aluminum.

D. Samples for Verification: Provide color sample of selected finish on 2"x3" aluminum sheet.

E. Installer Certificates: If required, signed by manufacturer certifying that installers comply with requirements.

F. Product Test Reports: From a qualified testing agency indicating skylights comply with requirements, based on comprehensive testing of current products.

1.3. QUALITY ASSURANCE

A. Installer Qualifications: An experienced installer who has specialized in installing metal-framed skylights similar to those indicated for this Project and who is acceptable to manufacturer.

B. Professional Engineer Qualifications: A professional engineer who is experienced in providing engineering services of the kind indicated. Engineering services are defined as those performed for installations of skylights that are similar to those indicated for this Project in material, design, and extent.

C. Testing Agency Qualifications: An independent testing agency with the experience and capability to conduct the testing indicated, as documented according to ASTM E 548.

1.4. PROJECT CONDITIONS

A. Field Measurements: Where metal-framed skylights are 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. Established Dimensions: Where field measurements cannot be made without delaying the Work, establish dimensions and proceed with fabricating skylights without field measurements. Coordinate construction to ensure that actual dimensions correspond to established dimensions.

1.5. WARRANTY

A. Warranty: Written warranty, executed by manufacturer agreeing to repair or replace components of metal-framed skylights that fail in materials or workmanship within specified warranty period. Failures include, but are not limited to, the following:

1. Structural failures.
2. Failure of systems to meet performance requirements.
3. Deterioration of metals, metal finishes, and other materials beyond normal weathering.

4. Water leakage; defined as uncontrolled water appearing on normally exposed interior surfaces of skylights from sources other than condensation, resulting from defects in skylight materials or workmanship. (Water controlled by flashing and gutters and drained back to the exterior and that cannot damage adjacent materials or finishes is not water leakage). Water leakage resulting from improper installations not part of this warranty.

B. System Warranty Period: 5 years from date of shipment from the manufacturer.

C. Finish Warranty: Provide written warranty signed by manufacturer agreeing to repair or replace work with finish defects. “Defects” is defined as peeling, chipping, chalking, fading, abnormal aging or deterioration, and failure to perform as required.

D. Warranty Period for 2604 Powder Finish or approved equal: 10 years from date of shipment from the manufacturer.

B1

E. ~~Warranty Period for 2605 Powder Finish or approved equal: 20 years from the date of shipment from the manufacturer.~~

F. Installer’s Warranty: 5 years

2.PRODUCTS

2.1. MANUFACTURERS

A. Manufacturers: Subject to compliance with requirements, provide Pinnacle 350/600 system by Wasco Part of the VELUX Group, Wells, ME (800-388-0293), or approved equal

2.2 FRAMING MATERIALS

A. Framing Members: Extruded aluminum alloy 6063-T5 or T6, ASTM B 221 with minimum effective thickness of 0.109 inches.
B. Exterior Pressure Caps: Extruded aluminum alloy 6063-T5 or T6, ASTM B 221 with minimum effective thickness of 0.090 inches.
C. Concealed Flashing: Manufacturer’s standard corrosion-resistant, non-staining, non-bleeding flashing; compatible with adjacent materials.
D. Exposed Flashing and Closures: Aluminum sheet alloy and temper of 1100-H14, thickness as require for proper performance.
    1. Minimum Thickness: 0.032 inch Apron Flashing.
    2. Minimum Thickness: 0.062 inch Closures.
E. Fasteners and Accessories: Manufacturer’s standard corrosion-resistant, non-staining, non-bleeding fasteners and accessories; compatible with adjacent materials.
    1. Aluminum Retaining Cap Fasteners and Framing Members Fasteners: ASTM A 193/A 193M, Series 300 stainless-steel screws; type as recommended by manufacturer.
    2. Connections to Supporting Structure: Series 300 Stainless Steel or ASTM A 307, hot dipped galvanized steel fasteners by installer.
F. Framing-System Sealants: Single-component, non-sag, high performance, non-priming, gun-grade elastomeric polyurethane sealant furnished by skylight manufacturer.
    1. Sealant complies with ASTM C920, Type S, Grade NS, Class 25, Use T, NT, M, A, G, and O.
    2. Sealant conforms to USDA approval standards.
G. Bituminous Paint: Cold-applied asphalt mastic paint complying with SSPC-Paint 12, except containing no asbestos, and formulated for 30-mil thickness per coat.

2.3 GLAZING MATERIALS

A. Sloped Glass: Glass must meet the requirements of the AAMA Glass Design for Sloped Glazing for the project.
B. Glazing Gaskets: Manufacturer’s proprietary pressure-glazing gaskets of elastomer type and hardness selected by the skylight manufacturer to comply with requirements. Glazing gaskets to be extruded thermoplastic elastomer by the skylight manufacturer.

B1 Bid Set Update 07/25/2025

C. Spacers, Edge Blocks, and Setting Blocks: Manufacturer's standard permanent non-migrating type of elastomer type and hardness selected to comply with requirements. Spacers, Edge Blocks, and Setting Blocks to be extruded thermoplastic elastomer by the skylight manufacturer.
D. Glazing Weatherseal Sealant: Neutral-curing silicone sealant recommended by skylight and sealant manufacturers for this use and furnished by skylight manufacturer.
    1. Sealant is capable of withstanding 50 percent movement in both extension and compression (total of 100 percent movement) when tested for adhesion and cohesion under maximum cyclic movement according to ASTM C 719.
    2. Sealant complies with ASTM C 920 for Type S, Grade NS, Class 25, Uses NT, G, A, and, as applicable to substrates including other sealants with which it comes in contact, O.
    3. Color: Black.
E. Flashing Sealant: Single-component, non-sag, high performance, non-priming, gun-grade elastomeric polyurethane sealant furnished by skylight manufacturer.
    1. Sealant complies with ASTM C920, Type S, Grade NS, Class 25, Use T, NT, M, A, G, and O.
    2. Sealant conforms to USDA approval standards.

2.4 FABRICATION

A. Framing Components: As follows:
    1. Factory fit and assemble components, where practical.
    2. Fabricate components that, when assembled, will have accurately fitted joints with ends coped or mitered to produce hairline joints free of burrs and distortion.
    3. Fabricate components to drain water passing joints and to drain condensation and moisture occurring or migrating within skylight system to the exterior.
    4. Fabricate components to accommodate expansion, contraction, and field adjustment, and to provide for minimum clearance and shimming at skylight perimeter.
    5. Fabricate components to ensure that glazing is thermally and physically isolated from framing members.
    6. Form shapes with sharp profiles, straight and free of defects or deformations, before finishing.
    7. Fit and assemble components to greatest extent practicable before finishing.
    8. Reinforce members as required to retain fastener threads.
    9. Attach retainer bars with gasketed stainless steel fasteners spaced at a maximum of 12 inches on center.
    10. Weld components before finishing and in concealed locations to greatest extent practicable to minimize distortion.
    11. Before shipping, shop assemble, mark, and disassemble components that cannot be permanently shop assembled.
B. Provide continuous aluminum frame with weatherproof splice joints and locked and sealed or fully welded corners. Locate weep holes in the frame at each rafter connection to drain condensation.
C. Prepare framing to receive anchor and connection devices and fasteners.
D. Field Glazing: Locate and size extruded elastomeric setting blocks and spacers in accordance with the glazing manufacturer's recommendations. At no point shall the glazing come in contact with the skylight frame or fasteners.

2.5 ALUMINUM FINISHES

A. General: Comply with NAAMM "Metal Finishes Manual" recommendations for application and designations of finishes.

B. Finish designations prefixed by AA conform to the system for designations of aluminum finishes established by the Aluminum Association.

B1

    1. ~~2605 Powder: Powder Coat High-Performance Architectural Coating complying with AAMA 2605. Color: TBD, Provide Standard Colors for Architect Review and Selection~~
    2. 2604 Powder: Powder Coat High-Performance Architectural Coating: complying with AAMA 2604. Color: TBD, Provide Standard Colors for Architect Review and Selection

3.EXECUTION

B1 Bid Set Update 07/25/2025

3.1 EXAMINATION

A. Examine substrates and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting skylight performance.
    1. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Metal Protection: As follows:
    1. Where aluminum will contact dissimilar metals, protect against galvanic action by painting contact surfaces with primer or by applying sealant or tape recommended by manufacturer for this purpose.
    2. Where aluminum will contact concrete or masonry, protect against corrosion by painting contact surfaces with bituminous paint.
    3. Where aluminum will contact pressure-treated wood, separate dissimilar materials by methods recommended by manufacturer.

3.3 INSTALLATION

A. General: Comply with manufacturer's written instructions for protecting, handling, and installing skylight components.
    1. Fit frame joints to produce hairline joints free of burrs and distortion.
    2. Rigidly secure non-movement joints.
    3. Accommodate thermal and mechanical movements.
    4. Install framing components to drain water passing joints and to drain condensation and moisture occurring or migrating within skylight system to the exterior.
    5. Coordinate installation of flashings at skylight perimeters to maintain continuity of water barriers.
    6. Set continuous curbs and flashings in a full sealant bed, unless otherwise indicated.
B. Erection Tolerances: Install skylight components true in plane, accurately aligned, and without warp or rack. Adjust framing to comply with the following tolerances:
    1. Variation from Plane: Limit variation from plane or location shown to 1/8 inch in 10 feet; 1/4 inch over total length.
    2. Alignment: Where surfaces abut in line and at corners and where surfaces are separated by less than 3 inches, limit offset from true alignment to less than 1/32 inch; otherwise, limit offset from true alignment to 1/8 inch.
C. Field Glazing: Locate and size extruded elastomeric setting blocks and spacers in accordance with the glazing manufacturer's recommendations. At no point shall the glazing come in contact with the skylight frame or fasteners
D. Install secondary-sealant weatherseal according to sealant manufacturer's written instructions to provide weatherproof joints. Install joint fillers behind sealant as recommended by sealant manufacturer.

3.4 CLEANING

A. Clean skylights inside and outside, immediately after installation and after sealants have cured, according to manufacturer's written recommendations.
    1. Remove temporary protective coverings and strippable coatings from pre-finished metal surfaces. Remove labels and markings from all components.
B. Remove excess sealant according to sealant manufacturer's written recommendations.

END OF SECTION

SECTION 08 71 00
DOOR HARDWARE

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. Provide door hardware per Door Schedule on A8.1.

B. Field verification, preparation and modification of existing doors and frames to receive new door hardware.

C. The intent of the hardware specification is to specify the hardware for interior and exterior doors, and to establish a type, continuity, and standard of quality. However, it is the door hardware supplier’s responsibility to thoroughly review existing conditions, schedules, specifications, drawings, and other Contract Documents to verify the suitability of the hardware specified.

1.3. SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used. Include a hardware schedule per door.

1.4. QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

1.5. WARRANTY

A. Manufacturer's Warranty: Provide manufacturer's standard limited warranty against defects in materials and workmanship.

B. Installer’s Warranty: 1 year.

2.PRODUCTS

2.1. MATERIALS

A. Key System - No Substitutions:
1. Manufacturer: Schlage
2. Primus Level 3 Interchangeable Core (IC), Factory Registered, patent Protected Key System
3. Submit to County to stamp to County’s identification system.

B. Lockset - No Substitutions:
1. Manufacturer: Schlage
2. L Series Mechanical Lock
3. Full-size, Interchangeable Core
4. Primus 6 Pin, Keyway Designated by County, Level 3 IC Cylinders - County to Key and Provide Primus Cores
5. Classroom Holdback Lock, L9076T, Standard Collection #03, , Finish: 626, Rose: A
6. Thumbturn Deadbolt at Restrooms 115 and 121 only: L496, Finish: 626

7. Keying: Match Owner's Requirements

C. Door Closers - No Substitutions:
1. Manufacturer: LCN
2. 4040XP Series
3. Parallel Arm
4. Finish: 646
5. Provide 4040XP-72MC Cover
6. Arms and Accessories as needed per door

D. Panic Hardware - No Substitutions:
1. Manufacturer: Von Duprin
2. CD98 Series
3. 990 Series Exterior Trim: Night Latch or Dummy Trim per hardware groups on A8.1
4. Use key-removable mullions plus rim devices at pairs.
5. Finish: 626

E. Hinges & Butts:
1. Manufacturer: Ives CB1 Series
2. Ball Bearing, Heavy Duty, 4-1/2” size
3. Non-ferrous butts w/ non-removable vandal proof pins at exterior doors
4. Finish: 626

F. Threshold:
1. Manufacturer: Pemko or approved equal
2. Aluminum
3. Width to Match Door Opening
4. Condition/ Model per Door Requirement - indicate in Submittal

G. Door Pull:
1. Manufacturer: Ives Architectural Hardware Products
2. 8302 Pull Plate
3. Finish: 630

H. Louvers:
1. Manufacturer: National Guard Products
2. Vandal Resistant Security Louver for 1-3/4” Thick Doors
3. L-VRSG-3
4. 18 ga. Cold Rolled Steel Frame
5. Blades 24 ga. Steel, Hemmed Edges
6. 16 ga. Steel, 3/4” x 3/4” Security Grille
7. Grey Primer (GPZ) Powder Coat Finish
8. Galvanneal - A40 Steel

I. Other Door Hardware:
1. Ives Kickplates, 8400 series, 630 Finish, 12”H x 2” less than door width
2. Ives Push Plates, 630 Finish
3. Stops - Ives or approved equal
4. Weatherstripping/ Door Seals - Pemko

3.EXECUTION

3.1. EXAMINATION

A. Prior to installation of hardware, examine doors and frames, with Installer present, for compliance with requirements for installation tolerances, labeled fire-rated door assembly construction, wall and floor construction, and other conditions affecting performance.

B. Field verify existing doors and frames receiving new hardware and existing conditions

receiving new openings. Verify that new hardware is compatible with existing door and frame preparation and existing conditions.

C. Examine roughing-in for electrical power systems to verify actual locations of wiring connections before electrified door hardware installation.

D. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2. INSTALLATION

A. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials and systems in proper relation with adjacent construction and with uniform appearance. Coordinate with work of other sections.

3.3. FIELD QUALITY CONTROL

A. Engage qualified manufacturer trained representative to perform inspections and to prepare inspection reports.

B. Representative will inspect door hardware and state in each report whether installed work complies with or deviates from requirements, including whether door hardware is properly installed and adjusted.

3.4. ADJUSTING

A. Initial Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.

1. Door Closers: Adjust sweep period to comply with accessibility requirements and requirements of authorities having jurisdiction.

2. Confirm door and gate opening force meets accessibility requirements.

B. Occupancy Adjustment: Approximately three to six months after date of Substantial Completion, Installer's Architectural Hardware Consultant must examine and readjust each item of door hardware, including adjusting operating forces, as necessary to ensure function of doors and door hardware.

3.5. CLEANING AND PROTECTION

A. Clean adjacent surfaces soiled by door hardware installation.

B. Clean operating items as necessary to restore proper function and finish.

C. Provide final protection and maintain conditions that ensure door hardware is without damage or deterioration at time of Substantial Completion.

END OF SECTION

SECTION 08 80 00
GLAZING

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. Provide glass and glazing.

1.3. SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used as part of other section submittal requirements.

B. Warranty: Submit manufacturer's standard warranty. Include labor and materials to repair or replace defective materials.

1.4. QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

1.5. DELIVERY, STORAGE, AND HANDLING

A. Protect glazing materials according to manufacturer's written instructions and as needed to prevent damage to glass and glazing materials from condensation, temperature changes, direct exposure to sun, or other causes.

1.6. PROJECT CONDITIONS

A. Environmental Limitations: Do not proceed with glazing when ambient and substrate temperature conditions are outside limits permitted by glazing material manufacturers and when glazing channel substrates are wet from rain, frost, condensation, or other causes.

1. Do not install liquid glazing sealants when ambient and substrate temperature conditions are outside limits permitted by glazing sealant manufacturer or below 40 deg F.

1.7. WARRANTY

A. Manufacturer's Warranty: Provide manufacturer's standard limited warranty against defects in materials and workmanship.

B. Installer’s Warranty: 5 year.

2.PRODUCTS

2.1. MATERIALS

A. Glass and Glazing:
1. Type: High-thermal performance insulating glass units with low-e coating, tempered at locations as required by code.

3.EXECUTION

3.1. EXAMINATION

A. Examine framing glazing, with Installer present, for compliance with the following:

1. Manufacturing and installation tolerances, including those for size, squareness, and offsets at corners.
2. Presence and functioning of weep system.
3. Minimum required face or edge clearances.
4. Effective sealing between joints of glass-framing members.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2. INSTALLATION

A. Inspect framing and report unsatisfactory conditions in writing.

B. Comply with GANA "Glazing Manual" and manufacturers instructions and recommendations. Use manufacturer's recommended spacers, blocks, primers, sealers, gaskets and accessories.

C. Install glass with uniformity of pattern, draw, bow and roller marks.

D. Install sealants to provide complete wetting and bond and to create a substantial wash away from glass.

E. Remove and replace damaged glass and glazing. Wash, polish and protect all glass supplied under this section.

END OF SECTION

SECTION 08 92 00
LOUVERS AND VENTS

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. Provide louvers and vents at restroom doors as noted on plans.

1.3. SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

B. Shop Drawings: Submit shop drawings indicating material characteristics, details of construction, connections, and relationship with adjacent construction.

C. Samples: Submit two representative samples of each material specified indicating visual characteristics and finish. Include range samples if variation of finish is anticipated.

1.4. QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

1.5. WARRANTY

A. Manufacturer's Warranty: Provide manufacturer's standard limited warranty against defects in materials and workmanship.

B. Installer’s Warranty: 1 year

2.PRODUCTS

2.1. MATERIALS

A. Steel Door Louvers
1. Material: Galvanized steel.
2. Blades: Horizontal blades with integral acoustic insulation
3. Finish: Factory primed and field painted.

3.EXECUTION

3.1. INSTALLATION

A. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials and systems in proper relation with adjacent construction and with uniform appearance. Coordinate with work of other sections.

B. Comply with AMCA Standard 500 and provide units with AMCA Certification rating seal. Comply with SMACNA Sheet Metal Manual except as otherwise indicated.

C. Provide separate continuous sills where needed to prevent water penetration. Maintain

equal blade-to-blade and blade-to-frame spacing for uniform appearance. Provide concealed vertical mullions and reinforcement as needed.

D. Restore damaged finishes. Clean and protect work from damage.

END OF SECTION

SECTION 09 21 13
PORTLAND CEMENT PLASTERING

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. Provide Portland Cement Plastering at new exterior walls, patched walls, around exterior columns, and on exposed faces of retaining wall/ patio wall.

1.3. SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

1.4. QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

1.5. WARRANTY

A. Manufacturer's Warranty: Provide manufacturer's standard limited warranty against defects in materials and workmanship.

B. Installer’s Warranty: 5 years.

2.PRODUCTS

2.1. MATERIALS

A. Portland Cement Plaster:
1. Type: 3 coats over substrate.
2. Scratch & Brown Coats: Rapid Set Eisenwall
3. Color Coat: Merlex Color Coat Stucco, texture to match existing adjacent, painted color match to existing adjacent

B. Building Paper:
1. Manufacturer: GMC Roofing & Building Paper Products, INC.
2. GMCraft 60
3. Weather Restrictive Barrier
4. Install per SMACNA in coordination w/ underlayment. Weatherlap joints 4” min. & seal with plastic cement. Stagger joints between layers, lap ends 6” min., stagger end joints. Add extra layer 18” min. at interior & exterior building corners w/ 6” min. weatherlap, staple in place. 9” wide strips, folded in at 90 deg. angle at all windows and exterior doors.

C. Metal Lath
1. Manufacturer: Cemco
2. Self-Furred Metal Lath (Grooved) Without Paper
3. 3.4 lb/yd

D. Foundation Screed
1. Manufacturer: Cemco
2. No. 7 Foundation Sill Screed
3. 7/8” Ground

3.EXECUTION

3.1. INSTALLATION

A. Comply with manufacturer's instructions and recommendations. Maintain environmental conditions within the limits prescribed by manufacturer.

B. At plaster patching, prepare surface to sound substrate, apply bonding agent and patching materials in accordance with manufacturer's instructions.

C. At scratch coat form full keys. Ensure tight contact between coats. Tool edges at windows, doors, other openings to small vee to control spalling.

D. Clean adjacent surfaces soiled during installation. Touch-up damaged surfaces. Protect work from damage.

END OF SECTION

SECTION 09 29 00
GYPSUM BOARD ASSEMBLIES

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. Provide gypsum board assemblies.

1.3. SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

1.4. QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers and use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

B. Tolerances: Not more than 1/16-inch difference in true plane at joints between adjacent boards before finishing. After finishing, joints shall be not be visible. Not more than 1/8 inch in 10 feet deviation from true plane, plumb, level and proper relation to adjacent surfaces in finished work.

C. Performance: Fire, structural, and seismic performance meeting requirements of building code and local authorities.

1.5. 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.

2.PRODUCTS

2.1. MATERIALS

A. Gypsum Board:

1. Application: Interior walls, partitions, and ceilings with tape and joint compound finish.
2. Material Standard: ASTM C1629.
3. Type: Board for tape and joint compound finish.
    a. Fire-rated Type X where indicated on plans: ASTM C36
    b. Moisture-resistant at wet locations: ASTM C630 or C1396
    c. Thickness: 5/8” Typical, but 1/4” acceptable at curved locations
4. Joint Treatment: ASTM C474 and ASTM C840, 3-coat system, paper or fiberglass tape.
5. Attach with appropriate screws at 7”o.c.; no nails permitted

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. INSTALLATION

A. Install gypsum board for tape and 3-coat joint compound finish in compliance with ASTM C 840 and GA 216, Level 5 finish. Install gypsum board assemblies true, plumb, level and in proper relation to adjacent surfaces.

B. Provide fire-rated systems where indicated and where required by authorities having jurisdiction.

C. Install boards vertically. Do not allow butt-to-butt joints and joints that do not fall over framing members.

D. Where new partitions meet existing construction, remove existing cornerbeads to provide a smooth transition.

E. Provide insulation full height and thickness in partitions at conference rooms, toilet rooms, between different occupancies, and where required.

F. Install trim in strict compliance with manufacturer's instructions and recommendations.

G. Repair surface defects. Leave ready for finish painting or wall treatment.

3.3. 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.

END OF SECTION

SECTION 09 30 00
TILING

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. Provide tile at Restrooms per Finish Schedule.

1.3. SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

B. Samples: Submit two representative samples of each material specified indicating visual characteristics and finish. Include range samples if variation of finish is anticipated.

1. Include manufacturers full range of color and finish options if additional selection is required.

1.4. QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

B. Tile: ANSI A 137.1.

C. Tile Setting Materials: ANSI A 118 series standard specifications.

D. Tile Installation: ANSI 108 series standard specifications and Tile Council of America, Handbook for Ceramic Tile Installation.

E. Mock-Ups: Provide mock-up as required to demonstrate quality of workmanship.

1.5. WARRANTY

A. Manufacturer's Warranty: Provide manufacturer's standard limited warranty against defects in materials and workmanship.

B. Installer’s Warranty: 5 year

2.PRODUCTS

2.1. MATERIALS

A. Wall Tile:

1. Manufacturer: Daltile
2. Application: Interior wall tile over tile backer board.
3. Full Height
4. Classic Color Wheel Collection
5. 4x4 Semi-Gloss
6. Arctic White 0190 (1)
7. Type: Glazed Ceramic tile.

B. Floor Tile:
   1. Manufacturer: Daltile
   2. Application: Interior floor tile over concrete slab.
   3. Mosaic Keystones
   4. 1x1 Mosaic
   5. Desert Gray Speckle (1) D200
   6. Type: Porcelain tile.

C. Cove Base:
   1. Manufacturers: Schluter Systems LP
   2. 4.21 Schluter-Dilex-AHK
   3. 1S 80 AE Satin Anodized Aluminum

D. Wall Grout:
   1. Manufacturer: Custom Building Products
   2. Prism Ultimate Performance Grout
   3. PG16517T, #165 Delorean Gray

E. Floor Grout:
   1. Manufacturer: Custom Building Products
   2. Prism Ultimate Performance Grout
   3. PG38117T, #381 Bright White

F. Thin-Set Mortar:
   1. Manufacturer: Custom Building Products
   2. VersaBond Professional Thin-Set Mortar

G. Cement Board:
   1. Manufacturer: USG
   2. Durock Brand Cement Board

H. Floor Mortar Bed:
   1. Manufacturer: Quickcrete
   2. Portland Cement

3.EXECUTION

3.1. INSTALLATION

A. Comply with Tile Council of America and ANSI Standard Specifications for Installation for substrate and installation required. Comply with manufacturer's instructions and recommendations.

B. Install waterproof membrane in accordance with manufacturer's instructions and recommendations.

C. Lay tile in grid pattern with alignment grids. Layout tile to provide uniform joint widths and to minimize cutting; do not use less than 1/2 tile units.

D. Provide sealant joints where recommended by TCA and approved by Architect.

E. Grout and cure, clean and protect.

END OF SECTION

SECTION 09 51 00
ACOUSTICAL CEILINGS

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. Existing acoustical ceilings and suspension systems to remain. If necessary, they may be removed, protected, and re-installed in order to complete work above the existing ceiling.

B. Minor portions of the ceiling will be removed and replaced with a gypsum board ceiling.

C. Minor modification to the ceiling will be needed to incorporate sprinkler heads and mechanical.

D. Please note, the existing acoustical ceiling tiles are to be re-used and are in limited supply. Take extra care to protect tiles. If quantity of tiles is not sufficient for complete re-installation, coordinate with Architect to determine replacement options.

E. Suspended Ceiling Grid System: Existing to remain. Modify per plans. Touch-up paint, as needed.

1.3. SUBMITTALS (*only needed in event of 1.2.D above*)

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

B. Samples: Submit two representative samples of each material specified indicating visual characteristics and finish. Include range samples if variation of finish is anticipated.

1. Include manufacturers full range of color and finish options if additional selection is required.

C. Extra Stock: Submit extra stock equal to 2% of amount installed.

1.4. QUALITY ASSURANCE (*only needed in event of 1.2.D above*)

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

B. Performance: Fire, structural, and seismic performance meeting requirements of building code and local authorities. Acoustical performance based on project requirements.

1.5. WARRANTY (*only needed in event of 1.2.D above*)

A. Manufacturer's Warranty: Provide manufacturer's standard limited warranty against defects in materials and workmanship.

B. Installer’s Warranty: 5 year

2.PRODUCTS (*only needed in event of 1.2.D above*)

2.1. MATERIALS

A. Manufacturer: Armstrong, CertainTeed, or approved equal
   1. Panel size: Match ceiling grid system
   2. Panel Edge: Match existing
   3. Color: Provide complete color chart to Architect for selection

3.EXECUTION

3.1. RE-INSTALLATION AND INSTALLATION

A. Install materials and suspension systems in accordance with manufacturer's instructions and recommendations, and ASTM C 636. Coordinate installation with location of mechanical and electrical work to ensure proper locations and anchorage.

B. Removal and reinstallation at existing ceilings: Remove and store materials for reuse when allowed. Handle with white gloves and avoid damaging corners and edges. Clean tiles and grid system, which have been removed. Provide additional materials to complete the work and to replace damaged existing materials. New materials shall match existing materials as approved.

C. Adjust, clean, and touch-up all system components.

END OF SECTION

SECTION 09 65 00
RESILIENT FLOORING

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. Provide resilient flooring and floor preparation. Refer to Finish Schedule.

1.3. SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

B. Samples: Submit two representative samples of each material specified indicating visual characteristics and finish. Include range samples if variation of finish is anticipated.

C. Extra Stock: Submit extra stock equal to 2% of total used.

1.4. QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

B. Performance: Fire performance meeting requirements of building code and local authorities.

1.5. WARRANTY

A. Manufacturer's Warranty: Provide manufacturer's standard limited warranty against defects in materials and workmanship.

B. Installer’s Warranty: 5 year

2.PRODUCTS

2.1. MATERIALS

A. Vinyl Tile Flooring:

B1

1. Manufacturers: Mannington Commercial or approved equal
2. Commercial grade, inlaid sheet vinyl, 5 year warranty. Prepare substrates according to manufacturer’s written instructions to ensure adhesion of resilient products.
3. Model: No Reservations Xpress
4. Color/ Style: Steadfast, NR108
5. Auxiliary Materials:
    a. Edge strips - See section 09 68 13 Tile Carpeting.
    b. Edge treatment - Micro-bevel, refer to manufacturer instructions
    c. Leveling compound.

B1 Bid Set Update 07/25/2025

3.EXECUTION

3.1. INSTALLATION

A. Comply with manufacturer's instructions and recommendations. Install in proper relation to adjacent work.

B. Prepare surfaces by cleaning, leveling and priming as required. Test adhesive for bond before general installation. Level to 1/8” in 10' tolerance.

C. Tile Flooring: Install tile with tight joints and with one-way pattern. Layout to prevent less than 1/2 tile units.

D. Sheet Flooring: Install sheets with tight joints and pattern in adjoining areas running in the same direction. Layout to minimize seams as approved.

E. Clean, polish, and protect.

END OF SECTION

SECTION 09 65 13
RESILIENT BASE AND ACCESSORIES

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. Provide resilient wall base and accessories.

1.3. SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

B. Samples: Submit two representative samples of each material specified indicating visual characteristics and finish. Include range samples if variation of finish is anticipated.

C. Submit extra stock equal to 2% of total used.

1.4. QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

B. Performance: Fire performance meeting requirements of building code and local authorities.

1.5. WARRANTY

A. Manufacturer's Warranty: Provide manufacturer's standard limited warranty against defects in materials and workmanship.

B. Installer’s Warranty: 1 year

2.PRODUCTS

2.1. MATERIALS

A. Resilient Wall Base:
1. Manufacturers: Burke, Mercer, or Approved Equal
2. Standard: ASTM F 1861.
3. Style: Cove, with pre-molded internal and external corners
4. Thickness: 0.125 inch
5. Thickness: 0.080 inch
6. Height: 6 inches.
7. Length: Use full lengths, no lengths less than 8”
8. Color: TBD - Provide black and brown samples for Architect selection

3.EXECUTION

3.1. INSTALLATION

A. Comply with manufacturer's instructions and recommendations. Install in proper relation to adjacent work.

B. Install base and accessories to minimize joints. Install base with joints as far from corners as practical.

C. Clean, polish, and protect.

END OF SECTION

SECTION 09 68 13
TILE CARPETING

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. Provide carpet tile and floor preparation.

1.3. SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

B. Samples: Submit two representative samples of each material specified indicating visual characteristics and finish. Include range samples if variation of finish is anticipated.

C. Extra Stock: Submit extra stock equal to 2% of total used.

1.4. QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

B. Performance: Fire performance meeting requirements of building code and local authorities.

1.5. WARRANTY

A. Manufacturer's Warranty: Provide manufacturer's standard limited warranty against defects in materials and workmanship.

B. Installer’s Warranty: 1 year

2.PRODUCTS

2.1. MATERIALS

A. Carpet Tile for Integral Entrance Mat:

B1

1. Manufacturers: Tandus Centiva/Tarkett
2. Style: Powerbond 24”x24” Tiles
3. Model: Grid Overlay II
4. Color: Hyland #44029
5. Installation Method: Glue-down.
6. Must meet ADA Requirements, coordinate floor transition
7. Auxiliary Materials:
    a. Edge guards - Schluter Reno-U at Perimeter of Integral Entrance Mat (Ramped Transition from carpet tile to LVT Resilient Flooring. See section 09 65 00 Resilient Flooring to material selection)
        i. Schulter Finish - Brushed Antique Bronze Anodized
    b. Adhesives, cements and fasteners.
    c. Leveling compound.

B1 Bid Set Update 07/25/2025

3.EXECUTION

3.1. INSTALLATION

A. Comply with recommendations of Carpet and Rug Institute "Specifier's Handbook".

B. Prepare surfaces and install materials in accordance with manufacturer's instructions and approved submittals. Clean, patch, and level substrate. Install materials in proper relation with adjacent construction and with uniform appearance. Coordinate with work of other sections.

C. Install edge guards and reducer strips as required; clean and protect.

END OF SECTION

B1 Bid Set Update 07/25/2025

SECTION 09 91 00
PAINTING

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. Provide painting and surface preparation, colors per Finish Schedule, sheet A8.1.

1.3. SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

B. Samples: Submit two representative samples of each material specified indicating visual characteristics and finish. Include range samples if variation of finish is anticipated.
   1. Include manufacturers full range of color and finish options if additional selection is required.

C. Extra Stock: Submit 2 unopened gallons of each paint and color used in the project.
   1. Color spot each lid.
   2. Identify with formula, location, product, and date.

1.4. QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

B. Regulations: Compliance with VOC and environmental regulations.

C. Mock-Ups: Provide mock-up as required to demonstrate quality of workmanship.
   1. Provide 1 foot x 1 foot mock-ups of each type of surface.

1.5. PROJECT CONDITIONS

A. Do not apply materials when surface and ambient temperatures are outside the temperature ranges required by the paint product manufacturer.

B. 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.

1.6. WARRANTY

A. Manufacturer's Warranty: Provide manufacturer's standard limited warranty against defects in materials and workmanship.

B. Installer’s Warranty: 5 year

2.PRODUCTS

2.1. MATERIALS

A. Painting:
   1. Manufacturers: Sherwin-Williams or approved equal.
   2. Application: Interior unfinished surfaces.
   3. Application: Exterior unfinished surfaces.
   4. Application: Repainting of existing surfaces.
   5. Primary Paint Systems: Primer plus two finish coats.
   6. Specialty: Children’s Area to have 4 separate colors with abstract hill motif (overlapped gradient waves). Outside of project scope, the Owner may coordinate to have a muralist work in this area as well.

3.EXECUTION

3.1. INSTALLATION

A. Inspect surfaces, report unsatisfactory conditions in writing; beginning work means acceptance of substrate.

B. Comply with manufacturer's instructions and recommendations for preparation, priming and coating work. Coordinate with work of other sections.

C. At existing areas to be repainted, remove blistered or peeling paint to sound substrates. Remove chalk deposits and mildew and wash all surfaces with mild detergent. Perform related minor preparation including caulk and glazing compounds. Spot prime bare areas before priming and painting as specified.

D. Match approved mock-ups for color, texture, and pattern. Re-coat or remove and replace work which does not match or shows loss of adhesion. Clean up, touch up and protect work.

END OF SECTION

SECTION 09 93 00
STAINING AND TRANSPARENT FINISHING

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. Provide staining and transparent finishing and surface preparation.

1.3. SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

B. Samples: Submit two representative samples of each material specified indicating visual characteristics and finish. Include range samples if variation of finish is anticipated.

1.4. QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

B. Regulations: Compliance with VOC and environmental regulations.

C. Mock-Ups: Provide mock-up as required to demonstrate quality of workmanship.

1.5. PROJECT CONDITIONS

A. Do not apply materials when surface and ambient temperatures are outside the temperature ranges required by the paint product manufacturer.

B. 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.

1.6. WARRANTY

A. Manufacturer's Warranty: Provide manufacturer's standard limited warranty against defects in materials and workmanship.

B. Installer’s Warranty: 5 year

2.PRODUCTS

2.1. MATERIALS

A. Staining and Transparent Finishes:
   1. Manufacturers: Sherwin Williams WoodScapes, Minwax or approved equal
   2. Application: Fence and Gate: exterior unfinished surfaces (WoodScapes or approved equal).
   3. Application: Slat Walls: Interior unfinished surfaces (Minwax or approved equal).
   4. Colors and Sheens: Provide Standard Color / Sheen options for Architect to Select

3.EXECUTION

3.1. INSTALLATION

A. Inspect surfaces, report unsatisfactory conditions in writing; beginning work means acceptance of substrate.

B. Comply with manufacturer's instructions and recommendations for preparation, priming and coating work. Coordinate with work of other sections.

C. Match approved mock-ups for color, texture, and pattern. Re-coat or remove and replace work which does not match or shows loss of adhesion. Clean up, touch up and protect work.

END OF SECTION

SECTION 10 14 00
SIGNAGE

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. Provide signage.

1.3. SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

B. Shop Drawings: Submit shop drawings indicating material characteristics, details of construction, connections, and relationship with adjacent construction.

C. Samples: Submit two representative samples of each material specified indicating visual characteristics and finish. Include range samples if variation of finish is anticipated.

1.4. QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

1.5. WARRANTY

A. Manufacturer's Warranty: Provide manufacturer's standard limited warranty against defects in materials and workmanship.

B. Installer’s Warranty: 1 year

2.PRODUCTS

2.1. MATERIALS

A. Accessibility, Egress, and Room Signage. Refer to sheet ADA1.1 for signage requirements for graphics, braille, text, and mounting heights. Refer to Door Schedule on sheet T1.2 and Sheet A3.1 for signage requirements:
1. ASI Sign Systems Inc., APCO Graphics, Inc, Best Sign Systems, or Equal
2. Material: Acrylic Plastic.
3. Thickness: 1/8”
4. Mounting: Concealed attachment, 3M VHB (Very High Bond) Tape & 100% Clear Silicone
5. Typestyle: Helvetica
6. Color: High Contrast, please provide samples of standard color options for Architect selection
7. Finish: Non-Glare
8. Space Between Text & Braille (where occurs): 3/8”
9. ADA Compliance: Yes - 1/32” Raised Text & Grade II Braille

B. Interior Decorative Signage at three locations: “TEEN”, “CHILDREN”, ARROYO GRANDE LIBRARY”:
1. Type: Wall Mounted

2. Material: Flat Cut Acrylic, 1”-1.5” Thickness, Approximate 10” Tall Letters
3. Copy: Please provide samples of standard font options for Architect selection.
4. Color: Please provide samples of standard color options for Architect selection.
5. Mounting: Per Manufacturer/ Installer

3.EXECUTION

3.1. INSTALLATION

A. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials and systems in proper relation with adjacent construction and with uniform appearance. Coordinate with work of other sections. Refer to sheet ADA1.1 for mounting height and location requirements.

B. Restore damaged finishes. Clean and protect work from damage.

END OF SECTION

SECTION 10 21 13
TOILET COMPARTMENTS

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. Provide toilet partitions and screens.

1.3. SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

B. Shop Drawings: Submit shop drawings indicating material characteristics, dimensions, details of construction, connections, and relationship with adjacent construction.

C. Samples: Submit two representative samples of each material specified indicating visual characteristics and finish. Include range samples if variation of finish is anticipated.

D. Product Certificates: For each type of toilet compartment, from manufacturer.

E. Maintenance Data: For toilet compartments to include in maintenance manuals.

1.4. QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

1.5. PROJECT CONDITIONS

A. Field Measurements: Verify actual locations of toilet fixtures, walls, columns, ceilings, and other construction contiguous with toilet compartments by field measurements before fabrication.

1.6. WARRANTY

A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of toilet compartments that fails in materials or workmanship within specified warranty period.
   1. Stainless Steel: 15 years.
   2. Solid Plastic: 15 years.
   3. Phenolic: 3 years.
   4. High Density Polyethylene (HDPE): 15 years
   5. Installer’s Warranty: 1 year.

2.TOILET COMPARTMENTS

A. Manufacturer: Scranton Products Hiny Hiders or approved equal
B. Floor-anchored, wall-anchored
C. NFPA 286
D. Style: Standard privacy style.
E. Material: Solid, high-density polyethylene (HDPE) with min. 10% recycled material,

waterproof, non-absorbent, self-lubricating surface that resists markings by writing utensils, 1” thick

F. ADA compliant where required

G. Color: TBD, Provide Standard Color Samples to Architect for Selection

3.EXECUTION

3.1. INSTALLATION

A. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials and systems in proper relation with adjacent construction and with uniform appearance. Coordinate with work of other sections.

B. Maximum Clearances:
1. Pilasters and Panels: 1/4 inch.
2. Panels and Walls: 1/4 inch.

C. Adjust hardware, clean, and protect work.

END OF SECTION

SECTION 10 28 13
TOILET ACCESSORIES

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. Provide toilet accessories per Restroom Accessory Schedules on Restroom Sheets.

1.3. SUBMITTALS

A. Product Data: Submit manufacturer's data sheets for each product specified, including the following:
   1. Installation instructions and recommendations.
   2. Storage and handling requirements and recommendations.
   3. Cleaning and maintenance instructions.
   4. Replacement parts information.

B. Schedule: Submit a toilet accessory schedule, indicating the type and quantity to be installed in each washroom. Use room numbers as indicated on the Drawings.

1.4. QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

B. Accessibility Requirements: Comply with requirements applicable in the jurisdiction of the project, including but not limited to ADA requirements as applicable.

1.5. WARRANTY

A. Manufacturer's Warranty: Provide manufacturer's standard limited warranty against defects in materials and workmanship.

B. Installer’s Warranty: 1 year

2.PRODUCTS

2.1. MATERIALS

A. Soap Dispenser: Integral to faucet, refer to plumbing drawings.
B. Hand Dryer: Integral to faucet, refer to plumbing drawings.
C. Partition-Mounted Toilet-Seat-Cover Dispenser and Toilet Tissue Dispenser Units: Serves two compartments; Bobrick Model B-357 or approved equal.
D. Recessed Toilet-Seat-Cover Dispenser and Toilet Tissue Dispenser Units: Bobrick Model B-34745 or approved equal.
E. Surface-Mounted Toilet Tissue Dispenser Units: Bobrick Model B-2888 or approved equal.
F. Stainless Steel Channel Frame Mirrors: Bobrick Model B-165 2436 or approved equal.
G. Stainless Steel Grab Bars: Bobrick Model B-6806 x 36 and Bobrick Model B-6806 x 42 or approved equal.
   1. ADA 18 ga. 1.5” diameter Type 304 Stainless Steel, satin finish 13 ga. concealed mounting flange. 1.5” from wall finish. Can support 900 lbs.
H. Surface-Mounted Toilet Seat Cover Units: Bobrick Model B-221 or approved equal.
I. Robe Hooks: Bobrick Model B-6717 or approved equal.

J. Surface-Mounted Baby Changing Table: Koala Care Model KB310-SSWM or approved equal.
K. Surface-Mounted Sanitary Napkin Receptacle: Bobrick Model B-254 or approved equal.
L. Underlavatory Guard (ADA): Plumberex Pro-Extreme or approved equal, white, antimicrobial molded plastic.

3.EXECUTION

3.1. INSTALLATION

A. Install products in strict compliance with manufacturer's written instructions and recommendations, including the following:
1. Verify blocking has been installed properly.
2. Verify location does not interfere with door swings or use of fixtures.
3. Comply with manufacturer's recommendations for backing and proper support.
4. Use fasteners and anchors suitable for substrate and project conditions.
5. Install units rigid, straight, plumb, and level, in accordance with manufacturer's installation instructions and approved shop drawings.
6. Conceal evidence of drilling, cutting, and fitting to room finish.
7. Test for proper operation.
8. Install materials and systems in proper relation with adjacent construction and with uniform appearance.
9. Mounting heights shall comply with ADA requirements.
10. Clean and protect work from damage.

B. Restroom accessories that are keyed must be made by the same manufacturer and be keyed to one key.

END OF SECTION

SECTION 10 44 00
FIRE PROTECTION SPECIALTIES

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. Provide fire extinguishers, cabinets and accessories.

1.3. SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

B. Shop Drawings: Submit shop drawings indicating material characteristics, details of construction, connections, and relationship with adjacent construction.

1.4. QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

B. Listed and labeled to comply with ASTM E 814 for fire resistance rating of walls where they are installed. Mounted to meet ADA requirements. Surface, semi-recessed, or recessed per drawings.

1.5. WARRANTY

A. Manufacturer's Warranty: Provide manufacturer's standard limited warranty against defects in materials and workmanship.

B. Installer’s Warranty: 1 year

2.PRODUCTS

2.1. MATERIALS

A. Fire Extinguishers:
1. Manufacturer: Amerex or approved equal
2. Type: 2A-10B-C
3. Public Area Mounting: Cabinet mounted.
4. Service Area Mounting: Metal brackets.

B. Cabinets:
1. Manufacturer: Guardian Fire Equipment or approved equal
2. Model: 1830 Semi-recessed.
3. Trim: Exposed.
4. Doors: Enameled steel, standard white baked enamel finish.
5. Door Style: Vertical Duo-panel.
6. Lettering: 2510 “Fire Extinguisher” Vertical Decal

3.EXECUTION

3.1. INSTALLATION

A. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials and systems in proper relation with adjacent construction and with uniform appearance. Coordinate with work of other sections.

B. Install fire extinguishers in mechanical and service areas with wall-hung brackets at locations and heights indicated and acceptable to authorities having jurisdiction.

C. Install fire extinguishers in cabinets in public areas plumb and level at heights acceptable to authorities having jurisdiction.

D. Restore damaged finishes. Clean and protect work from damage.

END OF SECTION

SECTION 21 03 00
FIRE SUPPRESSION

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. Provide fire suppression systems per Fire Protection Drawings.

B. Maintain fire alarm system in operation during construction.

C. Coordinate with Owner's room uses to provide adequate system for all contract areas.

D. Coordinate location of fire protection systems to avoid interference with location of designated lighting fixture locations. Notify Owner prior to construction of conflicts, which cannot be resolved.

1.3. SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

B. Shop Drawings: Submit shop drawings indicating material characteristics, details of construction, connections, and relationship with adjacent construction.

C. Operation and Maintenance Data: Submit manufacturer's operation and maintenance data, including operating instructions, list of spare parts and maintenance schedule.

1.4. QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

B. Provide complete sprinkler coverage per NFPA 13.

1.5. WARRANTY

A. Manufacturer's Warranty: Provide manufacturer's standard limited warranty against defects in materials and workmanship.

B. Installer’s Warranty: 5 year

2.PRODUCTS

2.1. MATERIALS

A. Refer to Fire Protection Drawings for, but not limited to:
1. Backflow Device
2. Sprinkler Heads
3. Pipe, Fittings, and Valves
4. Hangers
5. Seismic Bracing

3.EXECUTION

3.1. INSTALLATION

A. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials in proper relation with adjacent construction and with uniform appearance for exposed work. Coordinate with work of other sections. Comply with applicable regulations and building code requirements.

B. Center ceiling-mounted elements in center of ceiling tiles as applicable. **Please note that existing ceiling tiles are to be re-used and they are in limited supply. Take care to not damage tiles.**

C. Clearly label all valves and components.

D. Restore damaged finishes. Test all systems for proper operation in accordance with NFPA 13. Clean and protect work from damage.

E. Instruct Owner's personnel in proper operation of systems.

END OF SECTION

SECTION 22 00 00
PLUMBING

1.GENERAL

1.1. DESCRIPTION

A. Related Documents:

1. The other Contract Documents complement the requirements of this Section and apply to this Section
2. Division 1 - General Requirements, General Mechanical Section 23 00 13 apply to the Work of this Section.
3. Where requirements of this Section exceed those in other Contract Documents, Contractor shall comply with the requirements of this Section.

B. Codes and Regulations:

1. California Plumbing Code (CPC).
2. California Mechanical Code (CMC).
3. California Building Code (CBC).
4. California Green Building Standards Code(CGBSC).
5. California Electrical Code (CEC).
6. California Fire Code (CFC).
7. National Fire Code (NFC).
8. National Fire Protection Association (NFPA).
9. Local Building Department.
10. Local Fire Marshal.
11. California Energy Commission.
12. In the event of conflict between or among specified requirements and pertinent regulations, the more stringent requirements will govern when so directed by the Architect.

C. Scope of Work: (Plumbing Section Division 22)

1. Material and labor including rough-in for and connection to fixtures, appliances and equipment are:
    a. WASTE AND VENT
        1. Drain waste and vent piping (DWV)
        2. Indirect waste piping
        3. Floor drains.
        4. Traps.
        5. Vent flashings.
        6. Insulation of piping for condensation, heat, sound, and vibration.
    b. WATER
        1. Potable water piping systems including water hammer shock absorbers.
        2. Isolation, Zone and Control Valves.

3. Hot water systems including heaters and storage tanks.
4. Piping for water service.
5. Backflow preventers.
6. Disinfecting of water systems.
7. Insulation of piping and equipment for heat, sound, and vibration.

c. ALL PLUMBING FIXTURES AND SUPPORTS
   1. Including, but not limited to:
      (a) Sinks, lavatories, water closets, urinals, service sinks, etc., - all materials
      (b) Supports (backing) for all plumbing fixtures and accessories
      (c) Installation of sinks in or part of drainboards - all materials

d. PIPE IDENTIFICATION – Refer to Section 23 0013

e. CONNECTIONS
   1. Utilities-Sanitary sewer, water
   2. Hot water tanks
   3. Temporary water, waste lines
   4. The joining of pipe by any mode or method including, but not limited to, acetylene and arc welding, brazing, lead burning, plastics welding, soldering, wiped joints, caulked joints expanded or rolled joints, etc., used in connection with any of the work listed herein.

f. LAYOUT AND CUTTING
   1. Holes, chases, channels, the setting and erection of bolts, inserts, stands, brackets, stanchions, supports, sleeves, escutcheon plates, thimbles, hangers, conduits, and boxes.

g. EXCAVATION, TRENCHING AND BACKFILL
   1. In connection with plumbing and piping work shown herein

h. TEMPORARY PIPING in connection with:
   1. Building and construction work
   2. Excavating and underground construction
   3. Demolition work

i. PIPE HANGERS, SUPPORTS, ANCHORS, GUIDES, EXPANSION JOINTS
   1. Including:
      (a) Supports for equipment to which pipe is connected, such as tank supports
      (b) Acoustical pipe isolation
      (c) Isolators-dielectric and vibration
      (d) Anchors and thrust blocks of concrete, metal, etc.
      (e) Seismic bracing
         (1) Anvil/Badger, Mason Industries, B-Line/TOLCO or approved equal.

(2) Seismic hanger system design shall comply with current CBC requirements and ASE 7-05 and 7-10.

j. SIGNS AND NOTICES

k. SHEET LEAD, FIBERGLASS AND/OR PLASTIC LINING FOR:

1. Roof flashing for pipe

l. ROOF FLASHINGS FOR PIPING PENETRATIONS

m. TESTS

1. Piping, for tightness
2. Equipment for performance
3. Operating instructions
4. Final operation

1.2. ACCESSIBLE PLUMBING FIXTURES

A. Accessible plumbing fixtures shall comply with all of the requirements of CBC Sections 11B-213, 11B-305, & 11B-308, & 11B-Division 6.

1.3. QUALITY ASSURANCE

A. Use adequate numbers of skilled workers who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the Work of this Section.

B. Without additional cost to the Owner, provide such other labor and materials as are required to complete the Work of this Section in accordance with the requirements of governmental agencies having jurisdiction, regardless of whether such materials and associated labor are called for elsewhere in these Contract Documents.

C. Welder's Qualifications: Comply with ASME B31.8. The pipe welder shall have a copy of a certified ASME B31.8 qualification test report. Contractor shall also conduct a qualification test. Submit each welder's identification symbols, assigned number, or letter, used to identify work of the welder. Affix symbols immediately upon completion of welds. Welders making defective welds after passing a qualification test shall be given a requalification test and, upon failing to pass this test, shall not be permitted to work this contract.

D. Comply with NSF 14, "Plastics Piping System Components and Related Materials," for plastic, potable domestic water piping and components. Include marking "NSF-pw" on piping.

E. Comply with NSF 61, "Drinking Water System Components - Health Effects; Sections 1 through 9," for potable domestic water piping and components.

F. Comply with NSF 372, “Drinking Water System Components – Lead Content” for potable domestic water piping and components.

1.4. SUBMITTALS

A. Comply with pertinent provisions of Architectural Division 1 Sections.

B. Product Data: Within 35 calendar days after the Contractor has received the Notice to Proceed, submit 1 electronic PDF copy of the following to the Architect for approval prior to acquisition:

1. Materials list of items proposed to be provided under this Section.
2. Manufacturer's specifications, catalog cuts, and other data needed to prove compliance with the specified requirements. All pieces of equipment shall be clearly identified on corresponding manufacturer's literature being submitted.

3. Shop Drawings or other data as required to indicate method of installing and attaching equipment, except where such details are fully shown on the Drawings.
4. Submittals for the entire project shall be submitted at the same time or may be rejected until all are included in one submittal package.
5. Submittals shall be provided electronically in PDF format, bookmarked by design tags for equipment and specification sections for materials. Incomplete or noncompliant submittals may be rejected.

1.5. DESIGN CHANGES CAUSED BY PRODUCT SUBSTITUTIONS

A. Contractor shall pay costs of design and installation for changes resulting from substitution of alternate products.

B. Acceptance of alternate products by Architect does not change this requirement.

1.6. PRODUCT HANDLING

A. Comply with pertinent provisions of Architectural Sections.

B. Storage and Protection: Store materials protected from exposure to harmful environmental conditions and at temperature and humidity conditions recommended by the manufacturer.

2.PRODUCTS

2.1. WASTE, VENT, SEWER

A. Above and Below Grade:

1. Schedule 40 Solid wall PVC plastic DWV pipe with solvent-cemented drainage pattern fittings complying with ASTM D 1785 - Latest Issue.
    a. SCH. 40 Cellular Core PVC plastic DWV pipe with solvent-cemented drainage pattern fittings complying with ASTM D 4396 may be used at Contractor's option for vent piping. -Latest Issue.
2. Schedule 40 Solid wall ABS plastic DWV pipe with solvent-cemented fittings complying with ASTM D-2661 - Latest Issue.
    a. SCH. 40 Cellular Core ABS plastic DWV pipe with solvent-cemented drainage pattern fittings complying with ASTM D 3965 may be used at Contractor's option for vent piping. -Latest Issue.

B. Condensate (sized per CMC) and indirect waste drains

1. Type M Copper Water Tube ASTM B88 with wrought Copper solder fittings, ANSI-B16.22

2.2. DOMESTIC WATER PIPING

A. Above Grade (Distribution System)

1. Piping
    a. For soldered, brazed and mechanical joints, 4" and smaller Copper Water Tube Type L Annealed Temper (Hard Drawn) ASTM B75 or ASTM B88.
2. Fittings
    a. Wrought Copper Pressure Solder Fittings, ASME B16.22 or ASME B16-25, 95-5 Tin-Antimony Filler Metal.
    b. Bronze Flanges: ASME B16.24, Class 150, with solder-joint ends.

c. Copper Unions: MSS SP-123, cast-copper alloy, hexagonal-stock body, with ball-and-socket, met-to-metal seating surfaces, and solder-joint or threaded ends.

d. Press Fitting: Copper press fittings shall conform to the material and sizing requirements of ASME B16.18 or ASME B16.22. O-rings for copper press fittings shall be EPDM. Press fittings shall have an inboard bead design.

1. Copper Press Fittings: Viega/Rigid Tool Company, NIBCO, Elkhart/Apollo Xpress or approved equal.
2. 2"NPS and smaller: Wrought copper fitting with EPDM-rubber O-ring seal in each end.
3. 2-1/2" to 4"NPS: Cast-bronze or wrought copper fitting with EPDM-rubber O-ring seal in each end.

e. All underground water piping within the building boundaries shall be ASTM B88-93a Type "L" annealed (soft) copper tube made up without fittings below the floor level.

2.3. VALVES

A. Acceptable Manufacturers: Victaulic Milwaukee, Hammond, Jomar, NIBCO, others as noted.

Type	Size Range	Part Number
Ball	2” and smaller (2 or 3 piece)	Milwaukee UPBA400 Hammond UP8301A NIBCO 585-80-LF Victaulic Series P569

B. All valves in copper piping shall be soldered in or have screwed threads. Threaded valves shall be installed with sweat to screwed adapters.

C. Valves used on potable water services shall be UL classified in accordance with NSF-61 and meet the low-lead requirements of NSF-372.

2.4. HANGERS AND SUPPORTS

A. In general, all pipe hangers and supports shall conform to the following except where special pipe hangers and supports are detailed on the Drawings. In all cases hanger and support details on the Drawings shall take precedent over the following:

Piping 6” Size and smaller:

Items	TOLCO Figure	Anvil
Pipe Hanger	1; 2; 200	260
Side Beam Clamp for Wood Joist	58	207
Beam Coupling for Steel Beams	65	92
Rod Coupling for Connection to “Hilti”	70	135
Inserts in Concrete Decks	107;109A;109AF	N/A
Trapeze Hangers	Tolstruct A12	AS200
Pipe Clamp	TOLCO Cush Clamp	AS004OD-

B. Similar items by HOLDRITE, Anvil International, Erico-Caddy or TOLCO/B-Line will be acceptable.

C. Hanger Rods shall conform to the following table:

Tube/Pipe Size	Rod Diameter
½" to 4"	⅜"
5" to 8"	½"

D. Trapeze hangers may be used where parallel runs of pipe occur. All rods on trapeze hangers shall be 1/2" minimum size.

E. Hanger Support Spacing shall be as follows unless shown otherwise on the Drawings:

1. Horizontal:
    a. Copper: Every 6 feet for 1-1/2 inch and smaller, and 10 feet for 2 inch and larger.
    b. Schedule 40 PVC or ABS DWV: Every 4 feet for all sizes. Provide for expansions every 30 feet.
2. Vertical:
    a. Copper: Every floor not to exceed 10 feet.
    b. Schedule 40 PVC or ABS DWV: Base and every floor with mid-floor guides. Provide for expansion every 30 feet.

F. Refer to the plumbing code for materials not listed above.

G. At all points where insulated pipe contacts a hanger or support, the point of contact shall be protected by a metal insulation pipe shield #B3153 as manufactured by B-Line. Equivalent pipe protectors will be considered provided the substitute item meets the same standard of quality and performance as the specified item.

H. Abrasion-Protection Isolators: Use for prevention of damage to tubes and piping caused by abrasion when passing through or in contact with studs, joists, and similar framing.

1. Products:
    a. HOLDRITE #200 Series Isolators and Clamps.

I. Dissimilar Metal Isolators: Use for prevention of damage to tubes and pipes caused by contact between dissimilar metals.

1. Products:
    a. HOLDRITE #200 Series Isolators and Clamps.

J. Acoustical Noise & Vibration Isolation System: Consisting of through-stud isolators, pipe clamps, riser clamp pads, neoprene and felt lining material and associated support brackets. For applications requiring acoustical isolation of tubing, piping, and equipment from structure.

1. Products:
    a. HOLDRITE Silencer System with HOLDRITE STOUT Bracket System.

K. Seismic Restraint Devices

1. Available Manufacturers:
    a. Anvil/Badgr

b. Mason Industries

c. B-Line Tolco Division of Eaton

2. Seismic hanger system design shall meet the requirements of IBC, CBC and ASCE 7-05 and 7-10.

2.5. WALL AND FLOOR PENETRATIONS

A. Fire walls and floors:

1. Wall and floor penetrations shall be protected with a U.L. approved fire rated system. The system shall be per the Drawing Details, or other manufacturer's installation instructions.

2. Fire stopping materials by Hilti, Metacaulk, or 3M are considered equal. The material shall be the same as called out for in the U.L. approved system.

B. Poured concrete walls and floors.

1. Pipes penetrating poured concrete walls and floors shall be protected by providing the following:

a. A Schedule 40 PVC sleeve one (1) size larger than the pipe or one quarter (1/4) inch of foam material wrapped around and secured to the pipe or packed and caulked with mineral wool.

b. Protection shall end flush with the wall or floor surface.

C. All walls and floors:

1. Piping passing through walls and floors exposed to view shall be provided with chrome plated split-ring escutcheon plates in finished areas. Brass or galvanized escutcheon plates may be used elsewhere.

2.6. FLASHING

A. All flashing shall be 4 lb. sheet lead and all vents penetrating the roof shall be flashed and counter-flashed. Stoneman Co. roof flashing assembly with 10" skirt or equal may be used.

B. The flashing for vents penetrating a metal roof shall have a corrosion resistant aluminum base compatible with the roofing system. A rubber type flashing by "Tech Specialties" shall be installed between the flashing and pipe.

C. Individual roof storm drain overflows shall be flashed with Stoneman lead overflow Series #700 assemblies or flashed per vent above.

D. For single ply roofing, provide flashing per roofing manufacturer recommendations or installation instructions.

2.7. CLEANOUTS

A. Provide cleanouts per Drawings and details on Drawings. Cleanouts as manufactured by J.R. Smith, Mifab, Sioux Chief, or Zurn are acceptable substitutes provided they are equal if approved by Engineer.

B. Cleanout tops to be installed with tamper-proof screws.

2.8. FLOOR DRAINS

A. Provide floor drains as specified on the Plumbing Fixture Schedule. Cast iron body floor drains as manufactured by J.R. Smith, Mifab, Sioux Chief, or Zurn are acceptable substitutes provided they are equal if approved by Engineer.

2.9. WATER HAMMER ARRESTORS

A. Provide Wilkins Piston Model #1250XL, Sioux Chief #65X-X, Precision Plumbing Products, or equal, as sized on the Drawings or required by PDI. Install per manufacturer's instructions.

2.10. AUTOMATIC TRAP PRIMERS

A. Provide Precision Plumbing Products, J.R. Smith, Mifab, Sioux Chief, or Zurn as specified on the Drawings. Install per manufacturer's instructions.

2.11. PLUMBING FIXTURES

A. Fixture locations, quantities, types, sizes and connections shall be as shown on both the Plumbing and Architectural Drawings. If a conflict in fixture location is noted between the Plumbing and Architectural Drawings, the Architectural Drawings shall take precedence.

B. Fixtures shall be thoroughly protected against damage to the chrome plate or enamel, by chipping, scratching or other damage during the entire period of construction. Roof drains, floor sinks and drains, toilet and sink drains, plumbing vents, and all other similar fixtures shall be covered to prevent trash from entering the pipes until final installation of grates, domes, fixtures or other protective devices.

C. Provide fixtures as specified in the Plumbing Fixture Schedule.

D. Stainless Steel lavatories or sinks: Just, Elkay, Advance Tabco, Haws, or Acorn are acceptable substitutes provided they are equal if approved by Engineer.

E. Vitreous China fixtures: American Standard, Kohler, Mansfield, Sloan, Toto, or Zurn are acceptable substitutes provided they are equal if approved by Engineer.

F. Fixture carrier numbers listed are as specified on the Plumbing Schedule; however, carriers as manufactured by J.R. Smith, Mifab, or Zurn are acceptable provided they are equal.

2.12. CONNECTORS

A. Provide Brass Craft "Speedway" or equal heavy pattern iron pipe size brass stops, rigid or flexible supplies and chrome plated brass "P" traps. Stops in "Public" areas to have screwdriver slots and those in "Private" areas to have all cross handles.

B. Provide Brass Craft or equal flexible stainless steel braided water supplies to appliances. They may also be used to fixtures as an option to rigid supplies. Aquaflo is an acceptable substitute.

2.13. ACCESS BOXES

A. See section 23 00 13 for access panels.

2.14. BACKFLOW PREVENTORS

A. Provide all potable water outlets with hose attachments with non-removable hose bibb backflow preventers per the C.P.C.

2.15. WATER HEATERS

A. Provide water heaters as specified in Plumbing Schedule or approved equal of size, capacity, recovery, and KW/BTUH input. American, A.O. Smith, Lochinvar, and State are considered equal. Heater shall be A.G.A. or U.L. listed.

1. Heater storage tank shall be provided with magnesium anodes, approved standard pressure/temperature relief valve and all standard factory trim.

2. Provide approved flexible copper supplies for the water heater water connections.

3. Instantaneous tankless water heaters shall be with water flow activated switch to energize the electrical power source, a safety high water temperature limit, and all standard factory trim.

B. Provide an aluminum Smitty Pan Mfg. Co. overflow pan with 1” drain outlet or equal under water heater as specified on the drawings. Oatey, HOLDRITE, & Benjamin Mfg. Co are considered equal.

2.16. PRESSURE-TEMPERATURE RELIEF VALVE

A. Pressure-temperature relief valve shall be Wilkins TP220, TP3000 series, or equal.

B. Piping from valve to termination shall be Type L Copper, hard drawn with wrought copper pressure fittings and 95-5 tin antimony filler metal.

2.17. EXPANSION TANK

A. Expansion tank shall be Wilkins XT series as specified on the Drawings or approved equal in size and capacity. Amtrol expansion tanks are considered equal.

2.18. WATER HEATER SEISMIC RESTRAINTS

A. Seismic restraints shall be Watts Spacemaker restraint system Model E-50 or E-100 as applicable for the water heater specified. Spacemaker Model #TSE-25 or Seismik Model #SR-2 may be substituted when first approved by the Engineer.

2.19. PROTECTIVE INSULATION (ADA FIXTURES)

A. Provide approved manufactured, molded antimicrobial vinyl protective pipe and fitting covering for exposed waste and drain assembly and for hot and cold water supplies and stops. Protective system shall consist of pre-formed pipe or tubing sleeve and pre-formed fitting patterns for trap and stops. Assembly shall have integral snap fasteners.

B. Provide protective covering for off-set drain assembly and disposer at kitchen sinks.

C. Foam pipe wrap, duct tape, baggy-type covers, tie-strap fasteners are not acceptable.

D. Acceptable manufacturers:

1. Oatey/Dearborn Brass “ADA”
2. Truebro “Lav-Guard”
3. Plumberex “Pro-Xtreme”
4. Zurn #Z89XX-XX

2.20. INSULATION

A. All pipe insulation shall conform to Section 123 of the California Energy Efficiency Standards except to the extent that this Specification supersedes the minimum standards as established by the Code, in which case this Specification shall take precedent. Outside insulation shall be protected with a hard plastic or metal shell covering.

B. Insulation and lining material shall meet requirements of flame spread not to exceed 25 and smoke developed not to exceed 50 as tested by Procedure ASTM-E-84, NFPA 255 or U.L. 723 and shall conform to NFPA 90A and 90B.

C. Interior primary condensate piping shall be insulated with Armacell AP/Armaflex tube insulation with reinforced lap seal or approved equal.

D. Domestic cold water piping shall be insulated with a minimum 1" insulation in unheated areas of the building and where exposed outside of the building.

E. Domestic hot water piping shall be insulated with Owens-Corning Fiberglass heavy density pipe insulation 25 ASJ/SSL-II (All Service Jacket/Double/ Self-Sealing Lap). Insulation shall be UL rated non-combustible pipe insulation with a k factor of 0.24-0.28 @ 100 degrees F. mean temperature, an embossed vapor barrier laminated and pressure

sealing lap adhesive. All lap and butt strips shall have integral pressure-sensitive strips and shall be applied in strict accordance with manufacturer's instructions.

1. Closed cell polyethylene foam by IMCOA or equal may be used at Contractor's option provided it meets the above requirements.

F. Insulation thickness' shown below are based on insulation having a conductivity range of 0.22 to 0.28 per BTU/inch per hour per square foot per °F temperature of 100 degrees F.

1. Temperature Range: Above 105°F-140°F

Pipe Size	Minimum Insulation Wall Thickness
1" and less	1.0"
1.25"	1.5"
1.5"	1.5"
2" or more	2.0"

G. Insulation materials not meeting the specified conductivity range shall be submitted for approval and determination of the insulation thickness required.

3.EXECUTION

3.1. GENERAL CONDITIONS

A. Examine the areas and conditions under which Work of this Section will be performed. Conditions detrimental to timely and proper completion of the Work shall be brought to the attention of the Architect before the installation of materials. Do not proceed until unsatisfactory conditions are corrected. Incorrectly installed materials requiring changes will be at Contractor's expense.

B. All plumbing fixtures, appliances, and appurtenances furnished with manufacturer's installation instructions shall be installed per those instructions.

3.2. PLUMBING SYSTEM LAYOUT

A. Lay out the plumbing system in careful coordination with the Drawings. Determine proper elevations for all components of the system and use only the minimum number of bends to produce a satisfactorily functioning system.

B. Follow the general layout shown on the Drawings in all cases except where other Work may interfere.

C. Lay out pipes to fall within partitions, walls, or roof cavities, and to not require furring other than as shown on the Drawings.

3.3. PIPING INSTALLATION

A. Pipe sizes as shown on drawings are Nominal Pipe Size (NPS) or Iron Pipe Size (IPS). Drawings and fixture schedule indicate pipe sizing per the CPC and Standard Engineering Practice. Pipe sizes shall be maintained to fixtures, appliances and equipment. Approved reducing fittings shall be installed at all points of connections.

B. Install piping generally square with building, free of traps or air pockets, and true to line and grade. Keep all piping tight to the building structure, unless pipe slope is required. Do not install piping in any locations where, in the Architect's opinion, it will interfere with the use of the building or create a safety hazard. Where space is inadequate, notify the Architect in time to avoid unnecessary Work. Install all exposed piping as high as possible without interfering with other trades.

C. Make changes in direction with manufactured fittings; use long radius elbows. Street elbows, bushings, close nipples and bending of pipe or tubing will not be allowed.

D. Provide "P" traps at sanitary sewer drainage devices without integral traps.

E. Underground plastic pipe will horizontally transition to metal pipe 5 feet before the above ground riser. Install plastic pipe with a minimum of 36" of cover when located under areas of possible vehicle traffic. Approved metallic pipe must be used if the minimum depth is not met. A tracer wire, terminating at each end at an exposed location, will be installed with all underground plastic pipe.

1. Piping may terminate a maximum of one foot above ground when encased in a listed metallic transition riser.

F. Use friction wrenches when installing brass, polished, or soft metal piping, and when installing piping exposed in finished areas. Replace piping showing wrench marks.

G. Attach escutcheon plates to pipes with set screws or spring clamps with concealed hinges. Continue insulation through escutcheon plates.

H. General:

1. Proceed as rapidly as the building construction will permit.
2. Thoroughly clean items before installation. Cap pipe openings to exclude dirt until fixtures are installed and final connections have been made.
3. Cut pipe accurately, and work into place without springing or forcing, properly clearing windows, doors, and other openings. Excessive cutting or other weakening of the building will not be permitted.
4. Show no tool marks or threads on exposed plated, polished, or enameled connections from fixtures. Tape all finished surfaces to prevent damage during construction.
5. Provide sufficient swing joints, ball joints, expansion loops, and devices necessary for a flexible piping system, whether or not shown on the Drawings.
6. Support piping independently at pumps, coils, tanks, and similar locations, so that weight of pipe will not be supported by the equipment. Support the equipment independently from the pipe.
7. Pipe the drains from mechanical equipment, drip pans, relief valves, air vents and similar locations, to an open sight drain, floor drain, or other acceptable discharge point, and terminate with an air break or air gap per C.P.C.
8. Securely bolt all equipment, isolators, hangers, and similar items in place.

3.4. IDENTIFICATION OF PIPING SYSTEMS

A. Use pipe material compatible pipe labels and markers.

3.5. HANGER AND PIPE SUPPORT INSTALLATION

A. Support pipes from structure with assemblies specified. Provide auxiliary members, anchors, guides, and sway braces necessary to maintain pipe alignment and prevent excessive movement or strain on piping system or components; allow for expansion and contraction of piping. Provide at least one hanger for each branch. Do not use powder driven fasteners, wire, perforated tape, nails, wood blocking, or other makeshift devices to support pipe.

B. Install hangers and supports to allow controlled thermal and seismic movement of piping systems, to permit freedom of movement between pipe anchors, and to facilitate action of expansion joints, expansion loops, expansion bends, and similar units.

C. Isolate piping systems from building structure to minimize noise transfer by using acoustical suspension isolator silencer and bracket system.

D. Protect tubing and piping from damage caused by abrasion when passing through studs, joists, and similar framing using abrasion protection isolators.

E. Penetration Protection: Provide allowance for thermal expansion and contraction of copper tubing passing through a wall, floor, ceiling or partition by wrapping with an approved tape or pipe insulation, or by installing through an appropriately sized sleeve. Penetrations of fire resistance rated assemblies shall maintain the rating of the assembly.

F. In plenum-rated applications, use tested clamp and isolator support systems designed specifically for this application.

G. Prevent damage to piping and tubing caused by contact between dissimilar metals using insert system designed specifically for this application.

H. Attach supports to structure with bolts, screws or concrete anchors, per support manufacturer’s requirements.

I. Use pipe positioning systems in pipe spaces behind plumbing fixtures to support supply and waste piping for plumbing fixtures.

3.6. JOINTS AND CONNECTIONS

A. Cut pipe shall be reamed to full inside diameter of pipe. Cut threads straight and true. Ensure all filings have been removed from inside of the pipe. Apply liquid Teflon to male pipe threads and not inside fittings. Use graphite on cleanout plug threads.

B. Joints in copper tube shall be made with 95-5 tin-antimony or lead-free solder, applied in strict accordance with the manufacturer's directions.

C. Dissimilar metals shall be isolated with dielectric couplings, "EPCO" or approved equal. Dielectric Waterway Fittings shall be UL classified in accordance with ANSI / NSF-61 for potable water service, Victaulic Style 647. Provide access panels at all hidden couplings.

D. All plastic pipe shall be joined in accordance with the manufacturer's recommendations for their pipe and IAPMO Installation Standard per the latest edition of the C.P.C.

E. Press Connections: Copper press fittings shall be made in accordance with the manufacturer’s installation instructions. The tubing shall be fully inserted into the fitting and the tubing marked at the shoulder of the fitting. The fitting alignment shall be checked against the mark on the tubing to assure the tubing is fully engaged (inserted) in the fitting. The joints shall be pressed using the tool approved by the manufacturer.

F. Pipe Protection: Provide protection against abrasion where copper tubing is in contact with other building members by wrapping with an approved tape, pipe insulation or otherwise suitable method of isolation.

G. Penetration Protection: Provide allowance for thermal expansion and contraction of copper tubing passing through a wall, floor, ceiling or partition by wrapping with an approved tape or pipe insulation, or by installing through an appropriately sized sleeve. Penetrations of fire resistance rated assemblies shall maintain the rating of the assembly.

3.7. SANITARY SEWER, VENT AND INDIRECT WASTE SYSTEM INSTALLATION

A. Install horizontal drainage piping at a minimum 2%, condensate 1%, slope unless otherwise noted. Where this is impractical notify the Architect before installing the pipes.

B. Install vent piping to drain back into the sewer system.

C. Provide cleanouts where shown on Drawings and where required by governmental agencies having jurisdiction.

1. All cleanouts to grade shall be firmly secured by means of a concrete block 20" square by 5" thick, and shall be flush with finished grade, unless otherwise noted on the plans.

D. Provide automatic trap primers as specified at floor sinks and drains as indicated on Drawings or where required by governmental agencies having jurisdiction. Provide access panels for all hidden mechanical trap primers.

3.8. VALVE INSTALLATION

A. Provide valves in the water, systems. Locate and arrange to provide complete regulation of apparatus, equipment, and fixtures.

B. Provide valves in at least the following locations:

1. In branches and/or headers of water piping serving a group of fixtures.
2. On both sides of apparatus and equipment.
3. For shutoff of risers and branch mains.
4. For flushing and sterilizing the system.
5. Where shown on the Drawings.

C. Locate valves for easy accessibility and maintenance. Provide access panels for all hidden valves.

D. Unions shall be installed downstream of all screwed valves.

3.9. WATER HAMMER ARRESTOR INSTALLATION

A. Provide water hammer arrestor on hot and cold water lines.

1. Install at all quick closing valves, solenoids, and supply headers at plumbing fixture groups.
2. Locate and size as shown on Drawings, and where not shown, locate in accordance with Plumbing and Drainage Institute Standard WH-201.
3. Install water hammer arrestor behind access panels.

3.10. BACKFLOW PREVENTION INSTALLATION

A. Protect plumbing fixtures, faucets, hose connections, and other equipment having plumbing connection, against possible back-siphonage.

B. Arrange for testing of backflow devices as required by the governmental agencies having jurisdiction.

3.11. PLUMBING FIXTURE INSTALLATION

A. Connect plumbing services to fixtures as shown on Drawings and as specified.

B. Install compression stops and flexible supplies per fixture manufacturer’s recommendation or as high as possible on wall directly below fixtures.

C. Install fixtures at right angles to, and tightly against, building surfaces, and in proper alignment. Fill gaps between fixtures and building surfaces with white grout. Mounting heights and locations shall be as shown on the Drawings, or, if not shown, as directed by the Architect.

3.12. INSULATION INSTALLATION

A. Clean and dry surfaces prior to application of insulation or adhesives.

B. Insulate piping, fittings, valves, and strainers. Leave unions exposed. Where insulation terminates, bevel ends of insulation and continue jacket over insulation and secure to pipe. Do not interrupt insulation at hangers, supports, clamps, or penetrations through structure. Fittings shall be finished with "Zeston" or approved equal fitting closures. If fitting closures not available, use 8 oz. canvas dipped in "Seal-Fas".

C. Attach longitudinal jacket laps and butt strips with factory applied pressure sensitive adhesive. On concealed piping only, outward clinching coated staples at two inch spacing may be used. Cover elbows with one piece polyvinyl chloride covers. Secure with tack fasteners. Tape ends of covers with matching tape on exposed piping. Seal off all cut ends with canvas and Benjamin Foster 30-36.

D. Install closed cell polyethylene foam per manufacturer's instructions.

E. Insulate traps and trap arms on floor sinks located above slab receiving discharge from ice machines and soda dispensers with ½" insulation.

F. Insulate primary condensate piping located within return air plenums with ½" wall thickness.

3.13. TESTING AND ADJUSTING

A. Provide personnel and equipment, and arrange for and pay the costs of, all required tests and inspections required by governmental agencies having jurisdiction. See Section 23 0013 for test requirements.

B. Where tests show materials or workmanship to be deficient, replace or repair as necessary, and repeat the tests until the specified standards are achieved.

C. Adjust the system to optimum standards of operation.

3.14. CLEANING (For potable water systems.)

A. Disinfection: The copper hot and cold water distribution system shall be disinfected prior to being placed in service. The system shall be disinfected in accordance with AWWA C651 or the following requirements:

1. The piping system shall be flushed with potable water until discolored water does not appear at any of the outlets.
2. The system shall be filled with a water chlorine solution containing at least 50 parts per million of chlorine. The system shall be valved off and allowed to stand for 24 hours. Or, the system shall be filled with a water chlorine solution containing at least 200 parts per million of chlorine. The system shall be valved off and allowed to stand for 3 hours.
3. Following the standing time, the system shall be flushed with water until the chlorine is purged from the system.
4. Provide bacteriological sampling and analysis results to the Engineer for review.

3.15. WARRANTY

A. The contractor shall warranty all systems for proper operation installed by the contractor for not less than one calendar year from date of project completion. This completion date shall be set by the Architect or owner.

SECTION 23 00 00
HEATING, VENTILATION, AND AIR CONDITIONING

1.GENERAL

1.1.DESCRIPTION:

A. Related Documents:
1. The other Contract Documents complement the requirements of this Section and apply to this Section.
2. Division 1 - General Requirements and Section 23 0013 and Section 15995 HVAC and Plumbing Commissioning apply to the Work of this Section.
3. Where requirements of the Section exceed those in other Contract Documents, Contractor shall comply with the requirements of this Section.

B. Codes and Regulations:
1. In addition to complying with the specified requirements, comply with pertinent regulations of governmental agencies having jurisdiction.
2. In the event of conflict between or among specified requirements and pertinent regulations, the more stringent requirements will govern when so directed by the Architect.

C. Included: Work includes, but is not necessarily limited to, the following.
1. The Work covered by this Specification shall include furnishing labor, material, equipment and services to construct, install and place in operation, the complete Heating, Ventilating and Air Conditioning Systems to the extent as indicated, and as shown on the Drawings and specified herein. The Work covered under this Section shall hereinafter be referred to as the Mechanical System.
2. A system of temperature controls shall be furnished and installed complete as hereinafter described. Low voltage wiring and conduit, complete with electrical accessories and materials as required for the installation of the temperature control system shall be furnished and installed under this Section of the Contract, but shall conform to the Specification requirements as set forth under Division 26.
3. Roof Top Gas Heat/Mechanical Cooling A/C Units
4. Fan Coil Units/ Common Split Systems
5. Heat Pump Condensing Units
6. Centrifugal Exhaust Fans and Roof Exhausters
7. Supply, return, and exhaust duct systems complete with grilles, registers and diffusers.
8. Filter and Filter Boxes
9. Duct, Pipe and Equipment Insulation
10. Space Temperature Controls
11. Refrigerant Piping
12. Vibration Isolators

D. Work Not Included In This Section:
1. Blocking, framing and wood supports required for the purpose of accommodating the Mechanical System unless specifically called for under this Division. The contractor is responsible for the correct location of such items and shall bear the expenses covering their omission or improper location.
2. Electrical connections to motors, electric starters, disconnect and over-current protective devices, unless specifically called for by this Section, or unless the equipment is furnished as an integral part of the Mechanical System Equipment, as hereinafter specified or noted on the Drawings.
3. Line voltage electrical wiring and conduit, except where specifically called for on the Drawings or hereinafter in this Section.
4. Painting, except when supplied as factory finish, or specifically called for in this Section or on Drawings.

1.2.QUALITY ASSURANCE

A. Use adequate numbers of skilled workers who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the Work of this Section.

B. Without additional cost to the Owner, provide such other labor and materials as are required to complete the Work of this Section in accordance with the requirements of governmental agencies having jurisdiction, regardless of whether such materials and associated labor are called for elsewhere in these Contract Documents.

1.3.SUBMITTALS

A. If the heating and/or air conditioning units are substituted with a different brand than that specified on the Drawings, the Title 24 Energy Compliance Calculation may have to be re-run. This re-calculation is NOT to be considered a general CA Task and will be billed hourly (6 hr minimum) as an Additional Service at the current rate defined in Exhibit B for Senior Energy Analyst.

B. Comply with pertinent provisions of Architectural Section.

C. Product data: Within 35 calendar days after the Contractor has received the Owner's Notice to Proceed, submit 6 copies of the following to the Architect for approval prior to acquisition:
   1. Materials list of items proposed to be provided under this Section including, but not limited to heating, ventilating and air conditioning equipment and mountings, air distribution equipment, ductwork and fittings, flexible ductwork, flue vent pipe, duct specialties, flexible connections, insulation, lining and adhesive, duct joint sealer, temperature controls, piping and accessories.
   2. Manufacturer's specifications, catalog cuts, and other data needed to prove compliance with the specified requirements. All pieces of equipment shall be clearly identified on corresponding manufacturer's literature being submitted.
   3. Shop Drawings or other data as required to indicate method of installing and attaching equipment, except where such details are fully shown on the Drawings.
   4. Submittals for entire Project shall be submitted at the same time or may be rejected until all are included in one submittal package.
   5. Submittals shall be provided electronically in PDF format, bookmarked by design tags for equipment and specification sections for materials. Alternativley, hard copies will be accepted if 6 copies are provided, bookmarked as previously noted and bound together separately in thee-hole folders or three ring binders.

1.4.DESIGN CHANGES CAUSED BY PRODUCT SUBSTITUTIONS

A. Contractor shall pay costs of design and installation for changes resulting from substitution of alternate products.

B. Acceptance of alternate products by Architect does not change this requirement.

1.5.PRODUCT HANDLING

A. Comply with pertinent provisions of Architectural Sections.

2.PRODUCTS

2.1.HEATING, VENTILATING AND AIR CONDITIONING EQUIPMENT

A. Heating, Ventilating, and Air Conditioning Equipment: Equipment shall be as specified on the Drawings. All other equipment shall be pre-approved by the Mechanical Engineer.

B. It shall be the responsibility of the Contractor to see that any substituted equipment performs similarly to that which is specified and fits in the same area as specified. Cost of

any additional Work caused by the substitution of equipment shall be borne by the Contractor.

2.2. AIR DISTRIBUTION EQUIPMENT

A. Grilles, registers and ceiling diffusers and other accessory equipment shown on the Drawings and "Grille, Register and Diffuser Schedule" shall be manufactured by Titus unless shown otherwise.

B. Any substitutions of the above equipment which may be proposed by the Contractor shall be re-sized to suit his equipment by the proposed manufacturer and submitted in tabular form listing components proposed for each location in the System, identifying each as to location, design, air quantity passing through the devices, pressure drop, noise criteria data, velocities of air leaving the device and "K" flow factors for each item. Manufacturer's data sheets showing dimensions and recommended method of installation for each component must also be included.

2.3. RECTANGULAR SHEET METAL DUCTWORK

A. Rectangular supply, return, outside air and exhaust ducts, single leaf dampers and plenums shall be fabricated from prime grade galvanized steel sheets of lock form quality and shall be constructed in accordance with appropriate tables of the latest ASHRAE "Guide and Data Book" and SMACNA "HVAC Duct Construction Standards" handbook and Chapter 6 of the 2019 CMC.

B. Transverse Duct Joints shall be made with The Ductmate System. When using The Ductmate System, construction of the duct such as gage, reinforcing, etc. shall be as indicated in the latest addition of the applicable SMACNA standards. With proper data, an equal may be submitted, providing the corners have a downset and corner clips to insure airtight integrity. Testing must be done by a nationally recognized testing laboratory. The standard Ductmate 35 System joint is the equivalent of a SMACNA "J" connection. The Ductmate 25 System joint is the equivalent of a SMACNA "F" connection. The installation of the Ductmate System shall be in accordance with the latest manufacturer’s printed Assembly and Installation Instructions.

C. Each duct or plenum shall be diagonally cross-broken for rigidity.

D. Duct bends, fittings, transitions, etc. shall be fabricated in accordance with Fabrication Standards as shown on the Drawings or in accordance with latest SMACNA "HVAC Duct Construction Standards" where not shown on Drawings.

E. Support ducts to joists or similar structural members. Except where indicated otherwise, ducts with a side of 24" or more shall be supported on Ductmate trapeze duct hangers consisting of 2" high x 1-1/2" wide x 18" gauge channel and 3/8" diameter hanger rods hung from support brackets bolted to structural members. See also Special Fabrications as shown on the Drawings. Duct supports shall be eight (8) feet maximum on center.

F. At branch ducts, provide manually operated dampers of the type and arrangement shown on the Drawings, two gages heavier than the duct (if single leaf type) in which installed, and equipped with locking quadrants and closed end bearings.

G. Sizes shown on Drawings are net inside dimensions. Enlarge duct to accommodate lining.

2.4. ROUND DUCTWORK AND FITTINGS

A. 2-10" w.g. round duct through 61" in diameter shall be United Sheet Metal spiral lockseam unseal duct, or approved equal, manufactured from galvanized steel meeting the ASTM A-527-71 in the following gages:

Diameter	Metal Thickness
3-13”	26 ga.
14-23”	24 ga.

B. Round duct shall be new and exclusively obtained for this project. Each piece shall be in 20’ lengths. Ducts shall be cut to length required with joints only at fitting locations, except on duct runs longer than 20 feet.

C. Spiral duct and fitting connections, 15" diameter and larger shall be Ductmate Spiralmate round duct connectors. The connector system shall consist of two mating round duct connector flanges roll-formed from hot dipped galvanized steel with an integral sealant and closure ring roll-formed from hot dipped galvanized steel.

D. Fittings shall be United Sheet Metal galvanized fittings in the following gauges:

Diameter	Metal Thickness
3-13”	24 ga.
14-23”	22 ga.

E. Spiral duct fittings must be manufactured as separated fittings and shall not be saddle taps, stubs or tap-in fittings tapped into spiral duct, nor may they be dove-tailed tap-ins into pipe or fittings.

F. Reducers shall occur after a branch tap occurs on the main portion of the fitting. Divided-flow fittings shall be used unless shown otherwise on the Drawings.

G. Joints on ducts and fittings shall be covered and sealed with 4" wide, 6 oz. canvas saturated with Arabol lagging adhesive, or Hardcast DT tape in conjunction with Hardcast FTA-20, non flammable, non-toxic adhesive, or GlenKote duct sealer or other approved mastic type sealer. Duct tape will not be allowed. Where exposed to weather, paint lagging strips with two coats of silver enamel paint.

H. All ductwork shall be constructed in accordance with appropriate tables of the latest ASHRAE “Guide and Data Book” and SMACNA “HVAC Duct Construction Standards” handbook and Chapter 6 of the 2019 CMC. Duct gauges to be in accordance with parts A and D of this section.

I. At branch ducts, provide manually operated dampers of the type and arrangement shown on the Drawings, two gages heavier than the duct (if single leaf type) in which installed and equipped with locking quadrants and closed end bearings.

2.5.FLEXIBLE DUCT

A. Flexible air duct shall be JP Lamborn Co., AMR-25.Flexible duct shall be factory made with a sound absorbing, spun-bonded, non-woven inner core. R-4.2 insulation to encompass core and a metalized polyester reinforced vapor barrier surrounding entire duct. Ends shall be secured to rigid duct per current SMACNA DCS with UL-181 FX tape. Length not to exceed 7 feet. Duct shall be Class 1, UL approved, and meet NFPA 90A, 90B and CMC minimum requirements.

B. Use only the minimum length required to make the connection. In no case shall any section of flexible duct exceed 7 feet in length.

C. Use two layers of UL listed 181 duct tape to connect flexible duct to the metal duct if flexible duct does not have S.M. collars.

D. The number of bends shall not exceed a combined total of 90 degrees. 90 degree bends will not be allowed at diffuser connections.

2.6. DUCT SPECIALTIES

A. Damper Regulators and Bearings: Duro-Dyne "Specline" SR-Series or approved equal, lever type with matching end bearing. Regulator set shall include rubber gasket between regulator and duct, spring washer between core and housing, wedge pin, dial indicator and handle. Matching end bearing shall be closed end with rubber gasket:

Model	Size
148	10” and Under
388	20” and Under
128	21” and Above

B. Access Panels: Access panels shall be located at all points where adjustable mechanisms are installed internal to or on the surfaces of the ductwork. Where adjustable mechanisms are concealed by walls or ceilings, "Elmdor" or approved equal access doors shall be installed. Size shall be suitable for convenient servicing. Tile Walls: Doors and Frame: Stainless Steel. Other areas: recess type to receive ceiling or wall finish in order to provide "Blind Finish".

C. Fire Dampers: Fire dampers shall be installed where shown on the Drawings and/or required, and shall be of a type approved by the U.L. Laboratories, Inc. and the State of California Fire Marshal. Dampers shall be installed per manufacturer's instructions. Provide access door in duct at each fire damper such that damper is easily accessible.

D. Volume Dampers:
1. In rectangular ducts greater than 1.5 sq. ft., provide Pottorff Model CD42, or equal, factory fabricated opposed blade damper, 16 gauge blades, and brass bearings. Blade width shall not exceed six inches.
2. In rectangular ducts 1.5 sq. ft. and less, provide single leaf dampers as described in Section 15600, 2.3 (a. and g.).
3. In round ducts 15" in diameter and less, provide shop fabricated galvanized sheet metal plate dampers. Plate shall be 18 gauge or shall be two even gauges heavier than duct; minimum thickness 22 gauge. Provide stiffening beads at 1/3 points in dampers lighter than 18 gauge.
4. In round ducts 16" and greater, provide Pottorff opposed blade damper Model CD22R or approved equal.
5. In round ducts 4” – 24” in diameter, above “hard” ceilings, provide DuroZone Cable Operated Damper. Cable length to be between 3 and 15 FT long. Contractor to determine proper length to be use.

E. Provide 20 gauge galvanized sheet metal escutcheon plates at duct penetrations of finished building surfaces. Install tight against surface and securely attached to duct. Continue insulation through openings.

F. Duct Mounted Access Doors:
1. In rectangular duct provide, DuroDyne Model IAD, Ductmate "Sandwich", or equal, insulated, duct mounted access doors with Cam-Lock operated latches where shown on drawings or required for access to duct mounted equipment. Doorframe shall be 24-gauge with double wall door and 1/2" glass fiber insulation. Size doors to provide easy access to equipment.

2. In round ducts, provide Ductmate - METU round duct access doors, fully insulated, with attached gasket and springs between inner and outer door. Access doors shall be as large as practical as duct size will allow.

2.7. FLEXIBLE CONNECTIONS

A. Provide fireproof, insulated, non-porous, flexible connections between fans and ducts or casings and where ducts are of dissimilar metals. For round ducts, securely fasten flexible connections by zinc coated steel clinch-type drawbands. Flexible connections shall be DuroDyne "Insulfab" or "Insulflex" or approved equal.

B. Provide a duct support next to each flex connector to prevent any strain on connection.

2.8. CONDENSATE DRAINS AND DRAIN PANS

A. Air conditioning cooling coils shall have a condensate drain pipe, type "M" copper, to drain the condensate as shown on drawings.

B. Fan coils or DX cooling coils located in an attic or furred space shall have a water level detecting device that will shut off the equipment or appliance in the event the primary drain is blocked.

C. Alternately, Fan coils or DX cooling coils located in an attic or furred space shall have a secondary drain pan constructed of 20 gauge galvanized steel sheet metal. This pan shall have a drain line discharging to a conspicuous location. This pan and drain is in addition to the normal condensate drain line from the coil.

2.9. PIPE HANGERS AND SUPPORTS

A. In general, pipe hangers and supports shall conform to the following except where special pipe hangers and supports are detailed on the Drawings. In cases hanger and support details on the Drawings shall take precedent over the following:

Pipe 6” Size and Smaller	
Items	Superstrut Number
Pipe Hanger	710
Side Beam Clamp for Wood Joist	540
Beam Coupling for Steel Beams	U563-U562
Rod Coupling for Connection to “Hilti”	H-119
Inserts in Concrete Decks	
Trapeze Hangers	A1200-A1202
Pipe Clamp	A716 or 701W/S-716

B. Similar items by Unistrut, Securstrut, Michigan, or B-Line will be acceptable.

C. Hanger Rods shall conform to the following table:

Tube/Pipe Size	Rod Diameter
1/2" to 4”	3/8”

D. Hanger Support Spacing shall be as follows unless shown otherwise on the Drawings:
   1. Horizontal:
      a. Copper: Every 6 feet for 1-1/2 inch and smaller, and 10 feet for 2 inch and larger.
   2. Vertical:
      a. Copper: Every floor not to exceed 10 feet.

2.10. DUCT SMOKE DETECTORS:

A. HVAC systems rated at 2000 CFM or greater shall be equipped with a duct smoke detector to automatically shut off the HVAC system if smoke is detected.

B. The detectors shall be installed in the main supply duct downstream of any filters, before any branch ducts or terminal connections.

C. The detector shall be System Sensor Innovairflex D4120 4-wire Photoelectric Smoke Detector. Provide with Factory NEMA 4 enclosure if mounted outside.

2.11. ELECTRICAL EQUIPMENT

A. Motor starters shall be provided complete with properly sized thermal overload protection and other appurtenances necessary for motor control specified. Mount starter adjacent to equipment. See electrical drawing. Maintain minimum of 3' clearance to front of device.

B. Motor Starters: Shall be NEMA I or III as appropriate, general purpose, weather-resistant, with watertight enclosure where required.

2.12. INSULATION

A. General: Insulation and lining material shall meet requirements of flame spread not to exceed 25 and smoke developed not to exceed 50 as tested by Procedure ASTM-E-84, NFPA 255 or U.L. 723 and shall conform to NFPA 90A and 90B.

B. Heating and cooling duct and related heating and cooling equipment insulation shall conform to 2019 Building Energy Efficiency Standards, Administrative Regulations, Title 24, Part I, Section 120.4, except to the extent that this Specification supersedes the minimum standards as established by the Code, in which case this Specification shall take precedent.

C. Unless noted otherwise, insulation shall be Fiberglass, or approved equal material. Application Work shall be performed in accordance with the best accepted practice of the trade and the manufacturer's recommendations. The performance of insulation Work shall be by experienced insulation applicators. Insulation shall be installed after the specified tests have been applied to the piping and duct systems, and the systems have been inspected and approved. Fiberglass trade names and/or numbers have been used to establish a standard of quality.

D. External Duct Insulation – Outdoors, in a space between the roof and an insulated ceiling, in a space directly under a roof with fixed vents or openings to the outside or unconditioned spaces, in an unconditioned crawlspace; or other unconditional spaces: Shall be applied to concealed heating and cooling, supply and return duct except duct that is internally lined. Insulation on duct shall be Manville Microlite FSK duct insulation, 3" thick, minimum installed R value of 8.0 or greater, FSK aluminum foil reinforced with fiberglass, scrim laminated to U.L. rated Kraft, or approved equal. Adhere to duct surfaces with Foster's 85-62 or approved equal, adhesive applied in strips of 6" wide on approximately 12" centers. Circumferential seams shall be butted together and sealed over joints with 3" wide pressure sensitive foil vapor barrier tape. Longitudinal edges shall be lapped 2" and secured with outward clinching staple 6" on center then sealed with pressure sensitive foil vapor barrier tape. Duct wrap shall be installed to allow maximum fullness at corners (avoid excessive compression)

minimum thickness at corners shall be 1". Where ducts are over 24" in width, the duct wrap shall be additionally secured to the bottom of the rectangular ducts with mechanical fasteners spaced on 18" centers (Max.) to prevent sagging insulation.

E. External Duct Insulation – All other locations not listed above: Shall be applied to concealed heating and cooling, supply and return duct except duct that is internally lined. Insulation on duct shall be Manville Microlite FSK duct insulation, 2" thick, type 100, minimum installed R value of 4.2 or greater, FSK aluminum foil reinforced with fiberglass, scrim laminated to U.L. rated Kraft, or approved equal. Adhere to duct surfaces with Foster's 85-62 or approved equal, adhesive applied in strips of 6" wide on approximately 12" centers. Circumferential seams shall be butted together and sealed over joints with 3" wide pressure sensitive foil vapor barrier tape. Longitudinal edges shall be lapped 2" and secured with outward clinching staple 6" on center then sealed with pressure sensitive foil vapor barrier tape. Duct wrap shall be installed to allow maximum fullness at corners (avoid excessive compression) minimum thickness at corners shall be 1". Where ducts are over 24" in width, the duct wrap shall be additionally secured to the bottom of the rectangular ducts with mechanical fasteners spaced on 18" centers (Max.) to prevent sagging insulation

F. Internal Duct Insulation - Outdoors, in a space between the roof and an insulated ceiling, in a space directly under a roof with fixed vents or openings to the outside or unconditioned spaces, in an unconditioned crawlspace; or other unconditional spaces: Shall be applied to all heating and cooling supply and return duct and plenums on roof or where shown on Drawings. Manufacturer shall be Manville Microlite, or approved equal. Duct Liner shall be Linacoustic R, 2" thick, 1.5 pcf, with a "K" value of 2.2 in. for a total "R" installed value of 8.0 or greater. Insulation shall withstand velocities of up to 5000 FPM and temperatures up to 250 degrees F.

G. Internal Duct Insulation – All other spaces not listed above: Shall be applied to all heating and cooling supply and return duct and plenums where shown on Drawings. Manufacturer shall be Manville Microlite, or approved equal. Duct Liner shall be Linacoustic R, 1 ½” thick, 1.5 pcf, with a "K" value of 2.2 in. for a total "R" installed value of 4.2 or greater. Insulation shall withstand velocities of up to 5000 FPM and temperatures up to 250 degrees F

H. Portions of duct receiving Duct Liner shall be completed with transverse joints neatly butted with no gaps or interruptions. The duct liner shall be adhered to the sheet metal with 100% coverage of adhesive and exposed leading edges and transverse joints coated with adhesive. Adhesive shall be a water based product. In addition this shall be secured with mechanical fasteners which shall compress the liner sufficiently in place. The liner shall be cut to assure overlapped and compressed longitudinal corner joints. Application procedures shall comply with the recommendations of the Sheet Metal and Air Conditioning Contractor's National Association's Duct Liner Application Standard, Second Edition.

I. External Duct Insulation Exposed to Weather: Shall be applied to heating and cooling supply and return ducts and plenums exposed to weather if not noted to be internally insulated. Insulation shall be Knauf Type ASJ, or approved equal, rigid board fiberglass, 3.0 # per cubic foot minimum density, 2" min. thickness, 8.0 min. R value. The board shall be neatly cut and fitted to the surface with joints tightly butted together and against standing seams. The insulation shall be secured to the duct with adhesive and mechanical fasteners starting 3" from butt joints and 18" on center each direction. Vapor-barrier tape shall be then applied over joints, seams, breaks and any penetrations of the insulation vapor barrier jacket. A weather-barrier mastic compound reinforced with fabric or mesh shall be applied as a finish coat. Finish by painting with two (2) coats of aluminum paint.

J. Ducts: Ducts shall be constructed, installed, sealed and insulated in accordance with the 2019 CMC. Insulation requirements are shown in 2019 California Energy Code T-24 Part 6 Section 120.4. The above paragraph(s) shall supersede if more stringent.

2.13. TEMPERATURE CONTROLS

A. Temperature controls shall be furnished as indicated in schematic Drawing on Plans including room thermostats, relays and other necessary combustion, operating and safety controls.

B. Wiring and Conduit

1. Control wiring and conduit shall be the responsibility of this section and be installed as follows:

   a. In equipment rooms/attics – Conductors shall be run in conduit. Final connection to equipment shall be flexible conduit.

   b. Concealed in building construction (wall/inaccessible ceilings) - Conductors shall be run in conduit.

   c. Roof mounted/exterior equipment yards – Conductors shall be in conduit. All flexible conduit shall be seal-tite with weatherproof connections. Equipment on grade and detached from the building a distance greater than 36” shall have underground control conduit routed to equipment.

   d. Above accessible ceiling spaces – Control cable will be allowed to be installed without conduit in accessible areas above ceilings as follows:

      1. Cable is an approved type for the application.

      2. Cable is bundled/organized in management devices routed square with building lines (no diagonals) and kept clear of electrical devices (i.e., ballasts, transformers, etc.) that could cause interference.

      3. Conduit sleeves are provided between accessible ceiling spaces (i.e., across soffits, gypboard ceilings, etc.) as required to maintain future access to cable.

   e. Cable routed in accessible ceiling spaces shall comply with EIA/TIA standards for communications cabling. Communication bus wire shall be W183C-2058Y Connect Air, yellow shielded cable.

C. Electric wiring, conduit and other electric devices required to complete the installation of the temperature control systems shall comply with requirements as set forth in the Electrical Section of this Specification.

D. After completion of the installation, the Contractor shall adjust thermostats, motors and other equipment provided under this Contract. He shall place them in complete operating condition subject to approval of the Architect.

E. The Control System herein specified shall be free from defects in workmanship and material under normal use and service. If, within twelve (12) months from date of acceptance by the Architect, any of the equipment herein described is proved to be defective in workmanship or material, it will be adjusted, repaired or replaced free of charge by the Contractor.

F. The final connections and supervision of control wiring and interlock wiring shall be the responsibility of this Contractor.

G. The Contractor shall submit to the Architect for approval, the required number of shop drawings of the entire control system before starting Work.

H. Upon completion of the Work, the Contractor will provide diagrammatic layouts of the Automatic Control Systems specified herein. Layouts shall show control equipment and the function of each item shall be indicated.

I. The temperature control system shall be installed by persons in the direct employment of the temperature controls manufacturer(s) exclusive contracting representative. The

Mechanical Contractor shall not install the temperature controls unless pre-approved by the Mechanical Engineer.

2.14. REFRIGERANT PIPING

A. Refrigerant piping shall be flushed clean with nitrogen and the ends capped prior to installation. Refrigerant piping shall be ASTM B280 ACR copper tube with wrought copper fittings. Use 5% minimum silver brazing alloy with melting point higher than 1100°F for making the joints.

2.15. REFRIGERANT PIPING INSULATION

A. Heat Pump Systems:
   1. Material:
      a. Low-density EPDM closed cell elastomeric foam, CFC and HCFC gas free with over-lap seal
      b. Thermal Conductivity: 0.235 (BTU * in/h *ft2 * °F) at 75°F.
      c. Water Vapor Permeability: <0.03 perm (4.38 x 10-11g/Pa*s*m) per ASTM E96.
      d. Water Absorption: <0.2% by volume per ASTM C 209.
      e. Working Temperature: -70 °F to 257 °F (-57 °C to 125 °C) continuous per ASTM C 411.
      f. Surface Burning Characteristics: Meets 25/50 Flame-Spread/ Smoke-Generated per UL 723 and ASTM E84. Additionally, meets UL-94 5 V-A, V-0 and is self-extinguishing per ASTM D 635.
      g. UV Resistant: EPDM provides UV Resistance in accordance with ASTM G7/ G90.
      h. Ozone Resistant: Meets ASTM D 1171
   2. Title 24 Wall Thickness:
      a. Hot gas pipes:
         1. Above 200 °F (3 pipe heat recovery systems) use 2 ½” wall thickness (requires double layers to meet 25/50 fire/smoke codes)
         2. Below 200 °F (2 pipe heat recovery systems) use 1 ½” wall thickness
      b. Liquid pipes:
         1. 1” wall thickness
      c. Suction gas pipes:
         1. 1” wall thickness for less than 1” pipe
         2. 1 1/2” wall thickness for greater than 1” pipe

B. For insulation exposed to weather:
   1. Provide protective PVC cover type “E-FLEX GUARD” (72 or 750 series) by Airex Manufacturing, Inc.

2.16. REFRIGERANT PIPING ACCESSORIES

A. Stop valves shall be Henry Type – rated for R410A, brass body, soldered, packless diaphragm.

B. Solenoid valves shall be Sporlan Type – rated for R410A, soldered with brass body.

C. Filter dryer shall be Sporlan "Catch-All" with soldered connections.

D. Flexible connectors rated for R410A shall be used at seismic joints. For linesets up to 5/8", flexible connectors shall be 36" Flex-Line Connectors manufactured by DiversiTech Corporation. Contractor to provide nitrogen purge and cleaning of complete assembly prior to installation.

3.EXECUTION

3.1.SURFACE CONDITIONS

A. Examine the areas and conditions under which Work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.

3.2.COORDINATION

A. Coordinate as required with other trades to assure proper and adequate provision in the Work of those trades for interface with the Work of this Section.

3.3.PREPARATION

A. Holes in concrete:
   1. Provide sleeves, accurately dimensioned and shaped to permit passage of items of this Section.
   2. Deliver such sleeves, with accurate setting drawings and setting information, to the trades providing the surfaces through which such items must penetrate, and in a timely manner to assure inclusion in the Work.

B. Flashing:
   1. Where items of this Section penetrate the roof, outer walls, or waterproofing of any kind, provide under this Section base flashing and counter flashing required at such penetration.
   2. Provide on each pipe passing through the roof a 4 pound seamless lead flashing and counter flashing assembly.

3.4.GENERAL INSTALLATION REQUIREMENTS

A. Conceal piping, ductwork, and equipment in spaces provided unless specifically shown otherwise. If spaces are inadequate, notify Architect in time to avoid unnecessary Work. Do not cut or notch structural members without specific approval of the Architect.

B. Follow manufacturer's instructions on items not specifically covered in drawings and specifications. Report discrepancies to Architect for clarification before starting Work.

3.5.EQUIPMENT INTERFACE

A. Provide required shut off valves, unions, and final connections of piping to the Work of this Section.

B. For electrically operated equipment, verify the electrical characteristics actually available for the Work of this Section and provide equipment meeting those characteristics.

3.6.PAINTING

A. Paint inside of air outlets and connecting plenums with one coat of black paint, or provide all such items factory pre-painted.

B. For roof-mounted equipment, provide factory pre-finish on exposed surfaces.

C. Touch-up scratches and abrasions to be invisible to the unaided eye from a distance of 5 feet.

3.7. INSTALLATION OF DUCTWORK

A. Ductwork shall be delivered to the Project site with surfaces clean and free of loose dirt and rust. Special care shall be exercised by the Contractor to store the duct in a clean area to prevent the accumulation of dirt prior to installation. Fabricated or partially fabricated duct sections shall not be stored in open fields or on dirt areas surrounding the construction site. Paved areas may be used, if available, provided adequate protection is provided to prevent the accumulation of dirt on duct surfaces. If possible, the Contractor should arrange to deliver duct to the project site and store on the floor of the area in which it is to be installed.

B. Before installation of ductwork, the Contractor shall inspect each section of duct and wipe internal surfaces clean. At the end of each Work period, or when ends of duct are left installed for future extension, the open ends shall be tightly closed off with a plastic sheet and taped securely to the open end of the duct.

C. Construct and install sheet metal in accordance with latest SMACNA recommendations. Provide variations in duct size and additional duct fittings as required and approved by the Architect at no extra cost to the owner.

D. The throat radius of bends shall be 1-1/2 times the width of the duct. Provide turning vanes in any mitered turn greater than 45 degrees.

E. Transition slopes shall be no less than one to five where space permits.

F. Abrupt offsets in the duct system greater than 30 degrees will not be allowed.

3.8. TEMPERATURE CONTROL INSTALLATION

A. Install wiring and tubing parallel to walls and floors and securely clipped to structure or mechanical system components. Group parallel runs for neat appearance.

B. Install room thermostats and other control devices at 48 inches above finished floor unless a lower mounting height is required for access by handicapped.

C. Install outside air sensor in a location where it is not directly effected by radiation from the sun or any heat generating device or by a conditioned air stream or any other location that would produce a false reading.

D. Upon completion of the installation calibrate all equipment and adjust controls for proper operation.

3.9. REFRIGERANT SYSTEM CHARGING PROCEDURE

A. Pressurize the system with refrigerant and hold for 24 hours with no drop in pressure; test joints and equipment for evidence of leaks after satisfactory pressure test.

B. Provide 1/2" angle type charging and purging valves adjacent to high and low side of the condensing unit to accomplish the procedure described hereinafter. Connect the vacuum pump to both the high and low side of the system. Do Work when ambient air temperature is above 60 degrees F during the evacuation process.

C. Operate the vacuum pump until the system is evacuated to 2.5 mm Hg absolute. Break the system vacuum with nitrogen or refrigerant.

D. After the system has been evacuated to 2.5 mm Hg absolute, close the vacuum pump suction valve and stop the pump.

E. Charge system to required capacity with specified refrigerant.

3.10.CONTROL DEVICE IDENTIFICATION LABELS

A. Thermostats and Exhaust fan switches shall have labels mounted on or just above the control device labeled with the equipment being controlled. As an example, for a exhaust fan controlled by a switch the label would read “EXHAUST FAN # 1” or if a thermostat the label would read “AC-1”.
   1. Labels shall be 2" x 1" x 1/8" thick Formica/plastic engraving stock beveled on both sides and with two 3/16" diameter holes near the top uppermost tag corners.
   2. Labels shall be white with 3/8" high red engraved letters.
   3. Labels shall be attached to the equipment with adhesive.

3.11.WARRANTY

A. The contractor shall warranty all of the systems for proper operation installed by the contractor for not less than one calendar year from date of project completion. This completion date shall be set by the Architect or owner.

3.12.SHOP DRAWINGS

A. The Contractor shall prepare shop drawings covering mechanical duct systems, equipment, and piping systems. The drawings shall be prepared electronically at 1/4" / ft scale minimum (or greater as needed for clarity or as requested by the Architect or Mechanical Engineer) and shall include sections, elevations, and dimensions in relation to the building structure and other trades as required to demonstrate coordination with all other disciplines and trades on the project.

B. Shop drawings are to be submitted to the Architect for approval per the Submittals requirements of this section prior to any fabrication.

3.13.MECHANICAL SYSTEM START-UP RESPONSIBILITY

A. Start up Mechanical Systems, and perform any such Work as may be required to adjust the systems to meet the requirements of the Contract Documents.

B. Install new clean specified filters in equipment containing filters immediately prior to owner occupancy. Contractor to bear all costs for this work.

3.14.MECHANICAL SYSTEMS BALANCING

A. Testing and air balancing shall be performed by an independent balancing company certified by Associated Air Balance Council (AABC) or National Environmental Balancing Bureau (NEBB) or other ASHRAE recognized TAB specific certification. Testing and balancing shall be performed by a company other than the mechanical system installers/ contractor. Service provider credentials to be included with project submittals for approval by the Mechanical Engineer.

B. After Systems have been tested as outlined, air and water flow rates shall be balanced, and control devices adjusted. Balance and testing shall not begin until systems have been completed and are in full working order. Upon completion of the balancing operation and prior to final acceptance of the systems, the balancing firm shall submit a report, per the Submittals requirements of this section, certifying to the proper performance of the system for approval by the Mechanical Engineer.
   1. The following information shall be included in the Air Side Report:
      a. Fan speeds.
      b. Motor current readings and voltage readings.
      c. Air quantities in CFM at supply, return, exhaust terminals, and outside air intakes, both at design value and actual measured value. Test and adjust each terminal to within +10% of design requirements.

d. Air velocities in FPM at supply, return, and exhaust terminals at design value and actual measured value.

e. Positive static pressure, negative and total pressures and total air quantities for each fan system.

f. Equipment nameplate data.

SECTION 23 00 13
GENERAL MECHANICAL REQUIREMENTS

1.GENERAL

1.1. DESCRIPTION

A. Related Documents:
   1. The other Contract Documents complement the requirements of this Section.
   2. Division 1 - General Requirements applies to the Work of this Section.
   3. Where requirements of this Section exceed those in other Contract Documents, Contractor shall comply with the requirements of this Section.

B. Codes and Regulations:
   1. In addition to complying with the specified requirements, comply with pertinent regulations of governmental agencies having jurisdiction.

C. Included: Work includes, but is not limited to the following:
   1. Heating, Ventilating, Air Conditioning and System Balancing
   2. Plumbing
   3. Carpentry and metal Work required for Work of this Section and not specifically shown under another Section. Openings in concrete or masonry construction shall be either core drilled or saw cut unless indicated otherwise on Drawings.
   4. Excavation and Backfill
   5. Coordination Drawings
   6. Demolition:
      a. The Demolition Plans were prepared for the convenience of the Contractor. The Engineer does not represent that all items, which may require demolition, have been shown. It shall be the responsibility of the Contractor to carefully examine the site and the Contract Documents and to perform all demolition and reconstruction, which may be required for the proper execution, and completion of work.

D. Related Work:
   1. Painting (Division 09)
   2. Cutting and Patching (Division 30)
   3. Low voltage electrical control (Division 26)

1.2. DEFINITIONS

A. Furnish: Purchase and deliver to job site in new condition.

B. Install: Receive and store at job site until required; place secure and connect; furnish required appurtenances.

C. Provide: Furnish and install as defined above.

D. Section: Refers to a Section of these Specifications.

E. Standards: The issue in effect as of the date of the contract documents.

1.3. PROJECT RECORD DRAWINGS

A. Comply with pertinent provisions of Architectural Sections (Division 01).

1.4. SERVICE INTERRUPTIONS

A. When Work of this Section requires temporary shutdown of existing systems for connections, the shutdown shall be made only during pre-arranged time agreeable to the Owner.

1.5. CORRELATION, INTERPRETATION AND INTENT OF CONTRACT DOCUMENTS

A. The Mechanical Drawings are, in general, made to scale and the Contractor may obtain approximate distances and dimensions by scaling the Plans. It is distinctly understood, however, that it is done entirely at the Contractor's responsibility. Refer to Architect's Plans and Specifications for construction details, which will affect the Work and equipment. Examine the Architectural, Civil, Structural, Mechanical, Electrical, Landscape, Irrigation, Data, Fire Protection and Plumbing Plans and Specifications to ensure that this work does not conflict with the above trades. Plumbing, Mechanical and Electrical Plans are diagrammatic and, therefore, do not necessarily represent the exact installation. However, pipe sizing for utility services and ductwork are calculated per their respective codes and Standard Engineering Practice and shall be installed as sized from point of origin to terminal point. It shall remain the Contractor's responsibility to submit Shop Drawings if he/she has any questions about the final arrangement. Nothing on these Plans or Specifications shall be construed to permit work not conforming to all applicable codes and regulations.

2.PRODUCTS

2.1. ACCESS PANELS

A. If not called for under other Sections, furnish Milcor, Elmdor, or Jay R. Smith access panels where shown on the Drawings or required for maintenance access to completed Work of this Section. Submit size, type, and location of proposed access panels not specifically shown, for review by Architect.

B. Access panels shall be constructed of 16 gauge prime coated steel or stainless steel with screwdriver operated cam latch, concealed hinges, and fire rating equal to adjacent construction.

C. Provide flush type doors with:
1. Stainless steel finish for tiled surfaces.
2. Prime coated finish for other surfaces.

2.2. FLASHING

A. Provide watertight flashing at all openings through exterior walls and roof. Refer to Architectural Drawings.

2.3. BELT DRIVES

A. All belts shall be "Vee" type, or approved equal. Sheaves shall be adjustable and shall be sized to drive fan at scheduled RPM when set at midpoint of adjustment range. All belt drive assemblies shall be rated at 150% of drive motor horsepower. OSHA approved belt guards shall be provided over all drive assemblies. The Contractor shall change any belts and drives as required to produce the specified CFM.

2.4. VIBRATION ISOLATION AND NOISE CONTROL

A. All fans, heating and ventilating units, air conditioning units, blowers and similar equipment shall be securely mounted to and/or supported from the structure.

B. Isolate all bare water piping from structural members or hangers with "Trisolators" or submitted and approved equal insulating sleeves. Install hangers on outside of insulated jacket on all insulated lines.

2.5. WEATHERPROOFING

A. All equipment exposed to weather shall be protected by means of a suitable finish (i.e. paint). All fan cabinets, roof-mounted equipment, and ductwork shall be fabricated in such a manner to prevent leakage through seams and joints. Water rated, exterior hoods shall be provided over motors, belts, and other devices to insure against damage by water. At all locations

where pipes and/or ducts penetrate exterior walls, or roofs, suitable rain tight flashing shall be provided.

2.6. PIPE WRAPPING

A. All pipe, metal components, and joints buried in ground shall be primed and protected with 10-mil tape double wrapped or approved equal per IAPMO IS 13-2006. Before tape application, all bare pipe and fittings to be wrapped must be coated with pipe wrap primer. Stretch first layer of tape to conform to the surface while spirally half-lapping, apply a second layer, half-lapped and spiraled as the first layer with spirals perpendicular to first wrapping. In lieu of tape wrap, heat shrinkable 10-mil minimum thick polyethylene sleeve may be used.

B. When applying tape, use only enough pull to cause the tape to properly conform to the irregular surfaces of the item. The proper amount of pull is reached when the tape surface is smooth without any wrinkles. Continue tape 4" above grade. End overlaps should point down. Tape shall be applied per manufacturer's installation instructions.

2.7. ELECTRIC MOTORS AND ELECTRICAL DEVICES

A. All Electric motor current characteristics are as shown in equipment schedules on drawings and as specified hereinafter in this Specification. The Contractor shall refer to the Electrical Plans and shall confirm all motor voltage, amperage and phase characteristics before processing submittals or ordering equipment. If any equipment is installed different from the supplied electrical power, it is the contractor's responsibility to correct equipment to the required electrical characteristics.

B. All electrical devices of a type normally listed by Underwriters Laboratories, Inc. shall bear U.L. label of approval.

2.8. PAINTING AND FINISHING

A. Provide the coating specified below unless otherwise specifically called for under Painting, Division 09900. Exclude non-ferrous items, stainless steel, items to be insulated, and factory-finished items. Conform to requirements of the Painting Section where requirements are not specified in this Section.

B. All materials used, except as otherwise specified in carrying out the provisions of the contract, are to be Fuller-O'Brien manufacturer or approved equal. Numbers given below are Fuller-O'Brien Company designation unless noted otherwise.
1. Primer coat for all exterior and interior materials: 1 Coat - Primer #66850
2. Finish coats as listed below:

Exterior concrete and concrete block	2 Coats – Semi-Gloss #664XX
Interior concrete and concrete block	2 Coats – Semi-Gloss #214XX
Exterior metal	2 Coats – Semi-Gloss #664XX
Interior metal	2 Coats – Semi-Gloss #214XX
Exterior galvanized metal	2 Coats – Semi-Gloss #664XX
Exterior stucco	2 Coats – Flat #668XX
Interior of Grilles, Diffusers, and Registers	1 Coat – Flat (black) #31202

3. Furnish equipment with factory or field-applied prime coat and finish coat of enamel. Restore damaged finishes to match original.

3.EXECUTION

3.1. DEMOLITION

A. Remove all heating, ventilation, and air conditioning equipment, fans, ductwork, supply, return and exhaust grilles, supports, controls including thermostats, control wire, conduits, control panels and any related equipment as indicated or noted on plans. Dispose of as directed by Owner.

B. Remove all plumbing fixtures and fittings, water piping, gas piping, equipment, and supports as indicated on plans. Dispose of as directed by Owner.

C. Any piping or ductwork to be reused to complete the project shall be capped immediately after removal of the demolished piping or ductwork.

D. All existing piping and ductwork "to remain" shall be firmly secured with temporary supports approved by the Architect until final supports or installation is complete.

E. Any waste piping including vents and drains, to be reused to complete the project shall be capped immediately after removal of the demolished piping. Cap or cover any open drains “to remain” prior to demolition work.

F. All existing water and waste pipe "to remain” shall be flushed out prior to connection to any new work. All ductwork shall be blown out prior to the installation of new diffusers and grilles.

G. All mechanical or plumbing equipment or fixtures to be reused shall be stored and protected in a clean area. The items shall be thoroughly cleaned before reinstallation.

H. Any existing piping in a demolished area, and not shown on the plans, shall be rerouted and reconnected to piping outside of the demolished area.

3.2. GENERAL EQUIPMENT INSTALLATION REQUIREMENTS

A. Install equipment to provide neat appearance, required manufacturer’s access, and required space to allow replacement or maintenance. Provide bases, supports, anchor bolts, and other items required to install equipment. Installation shall be level and braced per CBC.

B. Equipment shall operate quietly and without objectionable vibration. Excessive vibration, other than from specified equipment operating at optimum conditions, shall be the Contractor's responsibility and shall be eliminated as directed by Architect.

3.3. COORDINATION OF WORK

A. Coordinate Work of this Section with Work of other Sections to avoid conflicts. If required, provide shop drawings and submit to Architect for approval.

B. Insure that Work of other Sections is suitable to accommodate Work of this Section.

3.4. ADEQUACY OF FURRING

A. Conceal piping and ductwork in spaces provided unless specifically shown otherwise. If spaces are inadequate, notify Architect prior to ordering materials and fabrication of components.

3.5. PROTECTION AND CLEANING

A. Protect equipment from dirt, moisture, and mechanical damage during construction. Restore or replace damaged equipment to original condition.

B. Keep interior of piping and ductwork free of foreign material during construction. Flush piping systems with test medium specified under Piping Tests before installing equipment and appurtenances or making final connections.

3.6. CLOSING-IN OF UNINSPECTED WORK

A. Do not conceal or cover Work before tests and observations are completed. Uncover Work prematurely closed in and repair resulting damage to all Work, if requested by Architect, Engineer, or Project Inspector.

3.7. DAMAGE

A. Repair or replace items damaged by leaks or overflow from Work provided under this Section and for any damage to any part of the project site, for a period of 1 year after notice of completion date. This is in addition to and not a limitation of other rights the Owner may have against the contractor under the Contract Documents.

3.8. PAINTING AND FINISHING

A. The contractor shall examine carefully all surfaces to be finished under the contract; and before beginning any of his work shall see that the work of other trades has been left or installed in a workmanlike condition to receive paint, or a particular finish.

B. The contractor shall take the necessary steps to protect his work and the work of other contractors during the time his work is in process and the contractor shall be responsible for any and all damage to the work or property of other contractors caused by his employees or by himself.

C. Provide protective covers or drop cloths to protect floors, fixtures, and equipment. Exercise care to prevent paint being spattered on to surfaces which is not to be painted. Surfaces, from which such paint cannot be satisfactorily removed, shall be painted or repainted, as required to produce a finish satisfactory to the Architect.

D. Cracks, holes, or imperfections in concrete or plaster are to be filled with patching plaster and smoothed off to match adjoining surfaces.

E. All surfaces shall be in a proper condition to receive finish. Clean surfaces as necessary to receive paint. Remove all grease from metal surfaces before painting.

F. Each coat of paint shall be applied at proper consistency and brushed evenly, free of brush marks, sags, runs, and with no evidence of poor workmanship. Color between coats of paint shall differ; (Color variations between coats should be enough to impair hiding.) Care shall be exercised to avoid lapping of paint on glass or hardware. Paint to be sharply cut to lines. Finished paint surfaces to be free from defects or blemishes.

G. Exposed piping, ducts, and mechanical equipment (except for factory finished items) shall be painted. Exposed piping, except for identification banding, shall be painted to match surfaces adjacent. Each coat to be inspected when dry and subsequent coat not to be applied until approval received.

H. Paint all surfaces visible through grille, diffuser and register faces, flat black.

I. The contractor shall store all painting materials and equipment outside of the building. The receiving and moving of all paint materials and mixing shall be done outside of the building. Any other arrangements shall be made only with Architects approval.

J. All necessary precautions shall be taken to prevent fire. Rags, waste, etc., soiled with paint or cleaning material, shall be removed from the premises at the end of each day's work.

3.9. MECHANICAL SYSTEM TESTING

A. Furnish all test pumps, gauges, and equipment. Test all safety controls and devices.

B. For air tests, install a calibrated test pressure gauge in the piping system to observe any loss in pressure. Calibrate the test pressure gauge with a dead weight tester within 15 days before use and certify by initial and date on a sticker applied to the dial face. Maintain the required test pressure for the time indicated. Brush joints with a soapy water solution to check for leaks if the required pressure cannot be maintained.

C. After any test, repair all leaks found as directed and re-test as necessary until the system is proven tight.

D. Before applying test pressure to any piping systems the Contractor shall be responsible for isolating all equipment e.g. control valves, regulators, relief devices, tanks and any other line accessories, which would otherwise be damaged by the test pressure.
   1. Soil, Waste, Vent, Roof, and Condensate Drainage:
      a. Entire System: Tightly close all openings except the highest one. Fill to overflowing with water.
      b. Sections of System: Tightly close all openings except the highest opening of the section under test. Fill section with water to test each section with a minimum 10-foot head of water except for the uppermost 10 feet of the system.
      c. Allow to stand for (4) hours or longer, as required to complete the inspection.
   2. Domestic Water: Fill with water and test at 150 psig. Retain for (4) hours.
   3. Gas Piping: Air test to pressure equal to one and one-half times the design pressure, but in no case less than 50 psig. Retain for four hours.
   4. Refrigerant: Pressurize the system with nitrogen to 150 psig and hold for 24 hours with no drop in pressure; test joints and equipment for evidence of leaks after satisfactory pressure test.

E. After all Systems have been tested as outlined, all flow rates shall be balanced, and all control devices adjusted. See Section 23 0000.

F. The equipment and installations shall be operated by the Contractor and he shall demonstrate that all Systems are performing according to the requirements of the Plans and Specifications and to the satisfaction of the Architect, Engineer and Owner.

G. Acceptance Testing Requirements: For applicable mechanical acceptance tests see the T-24 plan sheets. All forms, regulation and requirements are available online at www.energy.ca.gov/title24.

3.10. CUTTING AND PATCHING

A. The Contractor shall do all cutting and patching which may be required for the installation of the Work under this Division of the Specifications. Patching shall be of the same quality, materials and finish as, and shall match accurately, all surrounding construction. No cutting of the Structure shall be permitted without the approval of the Architect.

B. Wherever concrete or paved surfaces are cut to provide for the installation under this Section, the Contractor shall restore the surfaces to their original condition. Subgrade materials, concrete, and paving materials, along with the placement of same, shall be in accordance with the respective Sections of this Specification as they apply to the installation of such material.

3.11. EXCAVATION AND BACKFILL: (Buried pipes within the building walls and to 5 feet from the building.)

A. Dig trenches straight and true to line and grade; bottom shall be left smoothed of rock points. Pipe shall be supported for the entire length on undisturbed, original earth. The minimum trench width shall be 16" and all pipe shall be 2 feet below the finished grade, minimum, wherever conditions permit. Sewer pipes to be below grade a s necessary to meet the slope and invert on the Drawing. Whenever substantial variations of pipe bury is indicated by field conditions, the proposed changes in depth of bury shall be submitted, in writing, to the Architect for approval.

B. Installation of Thermoplastic Pipe and Fittings: Trench width for thermoplastic sewer pipe shall be 1.25 times the outside diameter of the piping plus 12 inches or the outside diameter of the piping plus 16 inches. Thermoplastic piping shall be bedded in not less than 4 inches of granular fill supporting the piping. The backfill for thermoplastic piping shall be compacted along the sides of the piping in 6 inch layers and continue to not less than 12 inches above the piping. Compaction shall be not less than a 85 percent standard proctor density.

C. All piping shall be laid on a bed of clean dry sand not less than 6" thick. The space between the pipe and the sides of the trench shall be backfilled with clean dry sand to a point 6" above the crown of the pipe. Both sides of the pipe shall be filled at the same time.

D. The remainder of the trench shall be backfilled with native soil in lifts no greater than 12" and shall be mechanically compacted by tamping so to maintain a minimum relative dry density of 95%, determined by California Impact Test Method No. 216.

E. All backfilling shall be brought flush with finished subgrade.

F. Excess material shall be removed from the site. Trenches shall be backfilled immediately after approval.

3.12. INSTALLATION OF PIPING, DUCTWORK AND EQUIPMENT

A. The installation of piping, ductwork, and equipment shall be made in such a manner to clear beams and obstructions. Do not cut into or reduce the size of plates or any load carrying members without approval of the Architect. Check Drawings and Work of others to prevent interference. Deviations of the Work determined by the Architect shall be installed by the Contractor without additional cost.

B. Install piping and ductwork promptly, cap or plug open ends of pipe. No piping shall be permanently covered by construction before inspection and approval. Piping and ductwork shall be installed in accordance with best practice and recommendations of the manufacturer.

C. Conceal piping and ductwork unless indicated otherwise. Inspect each piece of pipe, tubing, fittings, and equipment for defects and obstructions. Remove defective material from site. Install piping generally level, free of traps and unnecessary bends to conform with building requirements, and provide space for other work. Piping to be free of unusual noises. Avoid any possible galvanic action by isolating dissimilar metals with suitable Dielectric Insulating Fittings.

D. Unless called for otherwise, hereinafter in this Specification or by specific detail on the Drawings, all water pipes in contact with structure and/or hangers shall be suitably isolated. In the case of uninsulated pipe, "Trisolators" or equal shall be used.

E. Protect enameled or polished equipment from damage, tool marks, etc.

3.13. STERILIZATION OF PIPES

A. After preliminary purging of the Systems, the entire domestic potable water system pertaining to Work under this Contract shall be chlorinated in accordance with American

Water Works Association, State of California Health and Safety Code procedure for disinfecting water mains. A thorough flushing operation shall be run upon completion of sterilization. Contractor shall then arrange with local health authority for test on mains and water systems and provide three (3) copies of test results to the Architect.

3.14. EQUIPMENT IDENTIFICATION TAGS

A. Major pieces of equipment shall include, but are not limited to: water heaters, air conditioners, unit heaters, supply and exhaust fans, and shall be tagged.
   1. Tags shall be 2" x 2" x 1/8" thick Formica/plastic engraving stock beveled on both sides and with two 3/16" diameter holes near the top uppermost tag corners.
   2. Tags shall be white with 3/8" high red engraved letters.
   3. Tags shall be attached to the equipment with bolts, screws or chains as per valves.
   4. Tags shall have the following information:
      a. Equipment number and nomenclature corresponding to the information on the mechanical contract drawings, and where multiple systems are installed in a building, equipment tagging shall include the space or area served.
      b. Examples:

WATER HEATER	EXHAUST FAN	AIR CONDITIONER
WH-1	EF-2	AC-3
FIRST FLOOR	KITCHEN 101	2ND FLOOR OFFICE - EAST

3.15. IDENTIFICATION OF PIPING SYSTEMS

A. Building Systems:
   1. Piping systems installed anywhere within the scope of the Work shall be identified as to contents using a color banding and marking system as outlined and in compliance with Federal OSHA requirements.
   2. This Work includes furnishing and application of all snap-around and/or self-sticking pipe markers. Formica valve tags, chains, wires, and related materials proper for the completion of the Work.
   3. Pipe markers shall be permanently shaped vinylite plastic snap-around pipe markers as manufactured by Seton Nameplate Corporation, Wilmington Plastic Company, or approved equal.
   4. A maximum of four basic background colors shall be used and they shall conform to the American Standards Association Standard A13.1, "Scheme For Identification of Piping Systems" The names of materials (pipe contents) shall be superimposed on these ANSI background colors. Work legends shall conform to ANSI A13.1 to avoid confusion and mistakes. Basic background colors and content classification are:

Yellow	Dangerous Materials
Red	Fire Protection
Bright Blue	Protective Materials
Green	Safe Materials

   5. Pipe marking and installation shall be as follows:
      a. Apply "Plastic Pipe Marker" at each valve to show proper identification of pipe contents.
      b. Use an "Arrow Marker" with each "Pipe Content Marker". The Arrow shall always point away from the "Pipe Marker" and in the direction of the flow.
      c. If flow can be in both directions, use a double-header "Arrow Marker".

d. Apply "Pipe Marker" and "Arrow Marker" at every point of pipe entry and exit where the line goes through the wall, floor or roof.

e. Apply "Pipe Marker" and "Arrow Marker" on each riser and "T" joint.

f. Apply "Pipe Marker" and "Arrow Marker" every 50 feet on long continuous lines.

g. Identifying long continuous lines with "Pipe Marker and "Arrow Marker at every bay or aisle within the building. All branch runs from mains on the roof shall be identified with "Pipe Marker" and "Arrow Marker" at the point of takeoff.

h. Apply "Markers" on the two lower quarters of the pipe where view is unobstructed. In this position "Markers" are read at a glance from ground floor level and dust will not obscure the "Marker". Roof-mounted piping "Markers" shall be so located that they can be read from a standing position on the roof.

i. All identification markers located out of doors and exposed to the sun and the elements shall receive one coat of clear lacquer after application to the pipe, to seal edges and to act as a protective coating.

j. Each "Arrow Marker" must have the same ANSI background color as its companion "Pipe Marker". Arrow must point away from "Pipe Marker" and indicate direction of flow.

k. "Pipe Markers" shall be guaranteed to stay on pipe systems for a period of not less than five years.

6. Following is a list of, but not necessarily limited to, the more commonly used piping systems that require identification "Pipe Markers" and "Arrow Markers".

Abbreviations on Drawings	Wording to Put on Pipe Marker	ANSI Color Background
HWS	Hot Water Supply	Yellow
HWR	Hot Water Return	Yellow
CW	Domestic Cold Water	Green
DHWS	Domestic Hot Water Supply	Yellow
DHWR	Domestic Hot Water Return	Yellow
S	Gravity Sewer or Drain	Green
V	Vent	Green
G	Natural Gas	Yellow
A	Compressed Air	Blue
FM	Fire Protection Water	Red
CD	Condensate Drain Return	Yellow
RL	Refrigerant Liquid	Yellow
RS	Refrigerant Suction	Yellow
All lettering shall be black on the yellow background and white on all other background.		

3.16. SEISMIC BRACING

A. It shall be required that pipes, ducts and conduits be supported and braced per the most current edition of SMACNA "Seismic Restraints Manual Guidelines for Mechanical Systems".

B. When the SMACNA "Seismic Restraint Manual Guidelines for Mechanical Systems" does not specifically address the size of duct or pipe to be braced, the following shall apply:
   1. All ducts shall be braced and guyed to prevent lateral or horizontal swing to the satisfaction of the Architect, Engineer, and State Inspector.
   2. All pipes shall be braced and guyed to prevent lateral or horizontal swing to the satisfaction of the Architect, Engineer, and State Inspector. Absolutely, no "Plumber's Tape" shall be used anywhere on this project.

C. The SMACNA Manual can be obtained through SMACNA online. Contractor shall obtain manual prior to the start of any work.

3.17. OPERATION AND INSTRUCTION

A. The Contractor shall furnish competent Technicians to supervise start-up operations of equipment specified by the Architect or Engineer and to instruct Owner's operators. The Contractor shall furnish six complete sets of operating instructions and service manuals to the Architect.

B. Instruction period shall be started after instruction books and service manuals have been submitted to and approved by the Architect and shall be at hours (regular and non-regular) arranged by the Architect.

C. Service manuals shall include oiling, cleaning, and servicing data, compiled in clearly and easily understood form and in a durable binder. Data shall show all serial numbers of every piece of equipment and complete list of replacement parts.

3.18. WARRANTY

A. The contractor shall warranty all of the systems for proper operation installed by the contractor for not less than one calendar year from date of project completion. This completion date shall be set by the Architect or Owner.

END OF SECTION

SECTION 23 01 30
HVAC SYSTEM CLEANING SPECIFICATIONS

1.GENERAL

1.1. GENERAL CONDITION

A. Contractor shall be a member of NADCA (National Air Duct Cleaner's Association).

B. Supervision: All work shall be supervised by a foreman having thorough knowledge and experience in the cleaning of air conditioning systems. The work shall be performed by experienced and qualified personnel.

C. Labor and materials: Contractor shall furnish all labor materials, supplies, tools, equipment, supervision, transportation and any other services or items necessary to accomplish the work.

D. Existing services: The existing heating, ventilating and air conditioning systems shall be maintained to all occupied areas during the normal working week.

E. Cleaning of premises: Contractor shall keep the job site clean of all surplus materials and debris. He shall dispose of all debris and leave area broom clean at the end of each work shift.

F. Work can be done at hours convenient to the customer so as not to interfere with existing operation.

G. Contractor shall provide all staging, scaffolding, ladders, or similar equipment required to properly carry on the work, unless other arrangements have been made with Owner's representative.

1. Suitable protective covering and respiration equipment shall be provided by Contractor to its employees in all areas of work operation.

H. Contractor will be responsible for coordinating with the designated Owner's representative. This will ensure that both parties are fully aware of work to be performed and time parameters within which the work will be completed.

I. Contractor will be responsible for all damage to any part of Owner's premises, equipment or machinery due to dirt or dust attributed to the negligence of their work. Contractor will clean, repair or replace such damages at no expense to the Owner.

2.PRODUCTS

2.1. None.

3.EXECUTION

3.1. GENERAL SPECIFICATIONS FOR CLEANING:

A. As necessary, furnishings and equipment will be protected with plastic tarps where work is being performed.

B. The cleaning process shall include thorough visual inspection of all portions of the interior of the system.

C. Cleaning shall be done to the standards specified in the current 2021 published Assessment, Cleaning, and Restoration of HVAC Systems (ACR) NADCA Standard for duct cleaning.

D. The work while in progress will be subject to random unannounced inspections by a representative of the Owner. As many inspections will be performed as necessary to guarantee that work is being done per the specifications.

E. Any mechanical problems will be reported in writing to Owner's representative.

F. Once the cleaning project has been completed, representatives of Contractor and of the Owner will do a quality control inspection. Should any work not meet the standards of these specifications then that item will be redone to meet the specs at no additional cost to Owner.

3.2. CLEANING OF AIR HANDLERS:

A. All interior walls and plenums will be brushed and vacuumed by hand. All un-lined metal walls and plenums will be washed with a mild paint-safe detergent.

B. Condenser and evaporative coils will be coated with a coil cleaner solution, then pressure washed (500-1000 PSI). Cleaning will be repeated as needed until blockages are eliminated and rinse water appears clean.

1. If needed, damaged or bent fins will be combed out as best possible to ensure proper air flow. Any coils not repairable will be reported to Owner's representative.

C. Fans and housings will be scraped and wire brushed to remove any debris and grease. They will then be cleaned with a mild paint-safe detergent and/or degreaser, and pressure washed. Precautions will be taken to ensure to detergent or degreaser gets into bearings.

D. All interior dampers, filter racks and filter frames will be cleaned with a stiff bristle or wire brush. They will then be cleaned with a mild paint-safe detergent and/or degreaser, and pressure washed.

E. Rusted areas inside of the air handlers will be wire brushed and prepared for painting, including condensate pans, fan scrolls, interior walls, dampers, etc.

F. All rusted areas inside air handlers will be coated with two coats of rust-inhibiting paint or waterproof sealer.

G. Any fiberglass lining inside the air handler which is unsalvageable will be replaced with new liner of at least equal thickness and quality. Liner will be properly installed with liner adhesive and pins.

H. The interior of the air handler will be sanitized with a biocide, registered by the EPA for use in ductwork.

I. The surface of all liner, both new and old, will be coated with a fire retardant coating. Any small tears in fiberglass that is not replaced will be repaired with lagging material and then coated.

J. New filters will be installed if provided by Owner at the time of cleaning.

3.3. CLEANING OF DUCTWORK:

A. All registers and diffusers will be removed and washed with a mild paint-safe detergent.

B. All ductwork of insufficient size for man access will be disconnected at joints or cleaned by means of access holes.

1. Access needed for proper cleaning will be cut into rigid metal and fiberboard ducts, at elbows and approximately every 15 feet. Holes will be sized as appropriate to allow cleaning and visual inspection inside duct.

C. All flexible ducts will be disconnected at joints, registers and VAV boxes to be cleaned. Flexible duct lengths of over 15 feet will be cut at intervals of not over 15 feet to permit cleaning.

D. All interior surfaces of supply and return air ducts will be brushed and vacuumed by hand.

E. Any disconnected ducts will be reconnected. Any previously patched access holds that are leaking will be resealed. Any ducts too damaged to be repaired will be reported to the Owner's representative.

F. The interior of all VAV / mixing boxes will be brushed and vacuumed by hand.

G. All interior dampers and turning vanes will be cleaned with a stiff bristle brush and then vacuum cleaned.

1. All interior dampers to be cleaned will have their setting marked before cleaning and will be reset to the same position after cleaning.

H. The interior of all return and supply air ducts will be sanitized with a biocide registered by the EPA for use in ductwork.

I. The surface of all liner will be coated with a fire retardant coating. Any small tears in fiberglass will be repaired with lagging materials and then encapsulated.

J. All access holes made for cleaning in metal ducts will be sealed with galvanized sheet metal panels of the same or heavier gauge metal as the ducts. Panels will be installed with silicone caulking and screwed onto the duct at 4" maximum on center, all around or as required to maintain an air tight seal.

1. Caulking will be performed in a neat and effective manner. No caulking will be applied over surfaces which contain dirt, rust, oil, scale, deteriorating caulking or other foreign matter which would affect adhesion.

K. All flexible ducts disconnected for the purpose of cleaning will be reattached with 3 sheet metal screws and duct tape or nylon collar straps, so as to be air tight.

L. All access holes made for cleaning in fiberboard duct will be sealed using caulking so as to be air tight.

3.4. TESTING:

A. Following cleaning and sanitizing surface wipes will be taken from each air handler and a representative sampling of ducts and tested for the presence of mold and bacteria.

B. A report will be made to the Owner's representative giving the laboratory results of the testing.

C. If the laboratory report finds any abnormally high counts of mold or bacteria remaining the affected areas will be re-sanitized.

END OF SECTION

SECTION 26 05 00
COMMON WORK RESULTS FOR ELECTRICAL

1.GENERAL

1.1. SUMMARY

A. This section includes: Basic electrical materials and methods.

B. Furnish labor, materials, equipment, components, and necessary services to support the electrical work show on the drawings and specified herein in this specification.

1. Principal features of this installation include:
   a. Selective Demolition of existing electrical systems.
   b. Raceways, boxes, gutters, enclosures, power wire, cable, and conductors.
   c. Distribution equipment, including panelboards.
   d. Fused disconnect switches, safety switches, fuses, and circuit breakers.
   e. Grounding
   f. Interior lighting system and controls.
   g. Connection of equipment.
   h. Line voltage connection of mechanical and plumbing equipment.
   i. Owner training.
   j. Electrical Acceptance.
   k. Lighting Acceptance.

1.2. RELATED SECTIONS

A. Related Sections Under Other Divisions:

1. The drawings and general provisions, including supplementary conditions, of this contract apply to this section.

2. Grading, patching, and repairing of existing surfaces, including but not limited to: asphalt, concrete, and vegetation, as required by the Architect/Civil Engineer.

3. Painting of exposed electrical equipment/raceways as required by the Architect.

4. Concrete work including but not limited to: equipment pads, luminaire bases, as required by the Architect/Structural Engineer.

5. Low voltage mechanical controls including but limited to: control wiring and conduit system, as required by the Mechanical Engineer. Control wiring and conduit shall be the responsibility of DIVISION 25, Mechanical, however, shall be installed in accordance to this specification.

6. Fire smoke dampers and duct mounted smoke detectors shall be the responsibility of DIVISION 25, Mechanical, however, electrical and fire alarm system connection(s) shall be installed in accordance with this specification.

1.3. SYSTEM DESCRIPTION

A. Furnish, install, and test materials and equipment in accordance with the drawings and this specification in order to provide a complete, working installation.

1. Lighting acceptance testing, documentations, and completion of California State required acceptance forms.

2. Electrical system acceptance, testing, and documentation.

B. Notify the Architect/Engineer of discrepancies within the drawings, this specification, and/or

actual field conditions.

C. Install equipment at locations indicated on the drawings as closely as field conditions permit. Obtain acceptance of equipment dimensions prior to installation through submittal review. California Electrical Code (CEC) minimum working clearances shall be maintained.

D. Electrical drawings are diagrammatic in nature and do not reflect minor variations in equipment alignment/installation that may be necessary. Review existing field conditions and make proper adjustments as required to avoid conflict with other trades or portions of work, satisfy the design requirements, and meet code minimums. Obtain acceptance of adjustments from the Architect/Engineer.

E. Permits shall be obtained for electrical work. Arrange inspections with the authority having jurisdiction and obtain acceptance.

F. Two copies of an Operating and Installation Manual shall be provided to the owner prior to final acceptance. Manuals shall reflect the installed system and include the following:

1. Submittal documentation reflecting installed materials, equipment, and systems.

2. Device Settings

3. Testing Reports

4. Maintenance requirements and battery replacement recommendations per manufacturer requirements for exit signs, luminaire battery packs, emergency luminaires, UPS’s etc.

5. Maintenance requirements for emergency generators.

6. Certificate of product and installation warranties

7. Lighting Acceptance Documentation

8. Electrical Acceptance Documentation

G. Owner training shall be prearranged prior to final acceptance. Instruct owner on the operation of equipment and systems including, but not limited to the following: device settings, system programming, and equipment testing, maintenance, and equipment locations. Provide manufacturer support as indicated per this specification.

1.4. REQUIREMENTS

A. PERFORMANCE

1. Final equipment feeder or branch circuit connections shall be coordinated with manufacturer nameplate data and specifications.

B. SUBMITTALS AND SHOP DRAWINGS

1. Shop drawings and product data (including manufacturer specification sheets) shall be submitted demonstrating compliance with the construction documents. Obtain approval from the Engineer prior to procurement.

a. Electronic submittal packages will be accepted.

b. Submittals shall be complete. Partial submittals will not be accepted.

c. Identification shall be made on submittal documentation indicating compliance with contract documents and intended use. Highlighted text, notation, etc. are acceptable.

d. The Engineer will review two rounds of product submittals. Should subsequent review be required beyond this to obtain acceptance, the contractor shall be responsible to compensate the engineering for time spent a at the engineer's standard hourly billing rate.

e. Equipment, materials, and components identified in the construction documents with specific manufacturer product numbers limit their use only as to the design, workmanship, and quality, not manufacturer unless otherwise noted specifically. Alternate products will be reviewed and evaluated during the submittal review process, pursuant to conformance with the contract documents. The project team reserves the right to request product samples for evaluation at no cost. The final decision will be made by the Architect. In the event that an alternate product is accepted, the following will be required:

1. Coordination with other trades. Costs incurred as a result of the substitution will be the responsibility of the Contractor.

2. Dimensions shall be field verified to ensure product will fit and maintain code required working clearances.

3. Approval of a substituted product does not alleviate the contractor from providing a complete, working installation compliant with the contract documents, design intent, applicable codes, standards, and local ordinances.

2. Submittals shall include the following:

a. Manufacturer equipment specifications, including but not limited to the following: distribution panels, panel boards, load centers, circuit breakers, motor controls, disconnect switches, and fuses.

1. Grounding.

2. Conduit raceway, innerduct, fittings, and straps.

3. Ducts and trench racks.

4. Conductors and terminations.

5. Junction boxes, pull boxes, gutters, and vaults.

6. Electrical devices including, receptacles, switches and accessories.

7. Luminaires, ballasts, and lamps.

8. Low voltage lighting control system, including but not limited to: control panel(s), cabling, terminations, switch banks, dimmers, dimming modules, and relays.

9. Lighting control system, including but not limited to: time clock, contactors, relays, and bypass switches.

10. Lighting control devices, including but not limited to the following: occupancy sensors, power packs, photocells, lumen and sensors.

11. Fire Penetration materials and manufacturer installation details.

3. Coordination with other trades to the fullest of ability is required to result in a complete, functioning, and professional installation.

4. The construction documents are based on the most accurate information available

when prepared. Minor adjustments are frequently made due to changes with respect to architectural plans, construction, and equipment furnished by others. This shall be recognized when bidding and during construction. No change in contract price will be allowed for alternate work which requires approximately the same work to adjust/relocate as a result of construction coordination work. Adequate contingency in the bid price shall allow for such coordination and adjustments.

5. Record drawings shall be provided to the owner prior to final acceptance. Record drawings shall be maintained throughout construction and reflect and illustrate job changes as they occur. Record drawings shall:

    a. Be submitted to the owner as a set of reproducible drawings. Hand drafted notation is acceptable, provided it is legible and clear unless otherwise noted per Architectural specifications.

    b. Identify locations of concealed and underground conduit 1” size and larger scaled within 12” of actual field conditions.

    c. Identify type of luminaire product installed.

    d. Identify the location of vaults and boxes.

C. QUALITY ASSURANCE

1. Manufacturers shall be regularly engaged in the manufacture of electrical construction products of types required for this project, whose products have been of satisfactory use in similar service for not less than five years.

2. Installers shall have experience in the installation of products required for this project. Installers shall be experienced with proper installation techniques and manufacturer recommendations. In the acceptance or rejection of the finished installation, no allowance will be made for the lack of skill on behalf of the personnel.

3. Installers shall be qualified by the State of California and provide documentation to the owner of the following:

    a. Valid Contractors License.

    b. Valid Business License.

    c. Individuals employed as electricians on the project shall have a valid journeyman electrician pocket card or California State Division of Apprenticeship Standards General Journeyman Electrician Certificate.

4. Electrical work shall be performed in accordance of the latest published requirements of the following codes and standards:

    a. American National Standards Institute (ANSI)

    b. American Society for Testing Materials (ASTM)

    c. Institute of Electrical and Electronic Engineers (IEEE)

    d. National Electrical Contractors Association (NECA)

    e. National Electrical Safety Code (NESC)

    f. National Electrical Manufacturers Association (NEMA)

    g. California Building Code (CBC)

    h. National Electrical Code (NEC) with California State Adoptions and

Amendments.

i. National Fire Prevention Association (NFPA).

j. California Code of Regulations, Title 8, Section 290.1 (CAL OSHA).

5. Materials and equipment shall be listed by an independent testing laboratory for the class of service intended (Underwriters Laboratories or equivalent).

6. Prior to final acceptance, the electrical system shall be tested and determined to be free from grounds and short circuits.

D. DELIVERY, STORAGE AND HANDLING

1. Provide for delivery, uploading, transportation and storage of equipment until installation and final acceptance by the owner.

2. Equipment and materials shall be stored in an environment consistent with what the equipment is listed for. Pay special attention and mediate environmental conditions such as, but not limited to: temperature, moisture, water, dust, dirt, etc. Assume liability of storage facilities and equipment and materials stored therein.

3. Electrical equipment shall be free of damage upon installation. Equipment damaged in transport or while in storage on or off the job site will be rejected and shall be replaced free of charge to the owner.

a. The Architect, Engineer, and Owner retain the right of continuous access and inspection of stored materials and equipment.

b. Once installed, equipment (including luminaires) shall be protected from, but not limited to: construction activities, dirt, debris, temperature, moisture, etc. until project completion and final acceptance by the owner.

1.5. GUARANTEES

A. Damaged equipment shall be repaired or replaced as necessary at no cost to the owner prior to final acceptance.

B. Guarantees shall be submitted to the owner, in writing, prior to final acceptance.

C. The installation, including labor, shall be warranted free of defects for a minimum of one year from date of owner final acceptance. Any defect related to the contractor’s work, during the warrantee period, shall be corrected at the contractor’s expense.

D. Equipment shall be warranted free of defects for a minimum of one year or as stated in this specification, whichever is a longer duration.

2. PRODUCTS

2.1. MATERIALS

A. Materials, components, and accessories shall be new unless otherwise noted in this specification.

B. Manufacturer discontinued product shall not be acceptable. Materials, equipment, and parts comprising any unit or part thereof, shall be new and unused unless otherwise noted in this specification. Damaged materials, equipment, and parts are not considered to be new and will be rejected per this specification.

3.EXECUTION

3.1. INSTALLATION

A. Work shall be performed by a skilled worker in a manner reflecting best, modern, construction practices and shall be consistent with acceptable means and methods of the trade and code requirements.

B. Upon completion, work shall have a neat, orderly, and finished appearance. Evidence of debris associated with the work shall be removed from the premise and disposed of legally and appropriately.

C. Clean equipment, both inside and out, upon final installation. If required, retouch equipment finishes in accordance with manufacturer instructions.

D. Maintain a safe working environment, including but not limited to:

1. Conform to all OSHA workplace requirements.

2. Equipment dead front covers shall be in place while equipment is energized.

3. Barriers, trench plates, flags, tape, etc. shall be used to keep persons away from unsafe conditions.

4. Conform with owner imposed safety requirements and site standards.

E. Coordinate raceway systems, equipment, and materials with other trades and building construction, in order to:

1. Avoid unnecessary project delays and conflicts.

2. Ensure penetrations made to exterior walls, foundations, fire rated assemblies, ceilings, and floors are approved and made per structural requirements and details.

3. Ensure ceiling systems, i.e. luminaires and ceiling mounted devices, do not conflict with, or limit fire sprinkler coverage.

4. Schedule, sequence, move, and position large equipment into the building during construction.

5. Coordinate sequence of work installed with other trades. Every effort shall be made to avoid unnecessary modification to work that has already been performed by other trades. Arrange for chases, slots, and openings in building components where needed during the progress of construction to allow for electrical installations.

F. Install electrical equipment to facilitate future servicing, maintenance, repair, and replacement (either complete assembly or individual components). As much as practical, connect equipment for ease of disconnecting at a later date, with minimal interference with other installations.

G. Motors shall be checked for proper rotation once permanent power has been established. Should the motor rotate in the wrong direction, it shall be reconnected for proper orientation.

H. Equipment Support and Installation

1. Electrical equipment shall be anchored to building floors, foundations, concrete housekeeping pads, concrete bases where appropriate by bolts and anchor bolts with studs.

2. After installation and before energizing electrical equipment, torque each bolted bus and cable connection in accordance to manufacturer recommendations. Calibrated torque wrenches shall be used.

3. Screw type conductor fasteners and other permanent (i.e. epoxy conductor adhesive) shall be used in junction boxes, pull boxes, terminal cabinets, panels, switchboards,

switchgear, motor control centers, variable frequency dries, or other types of enclosures containing electrical devices and/or conductors. Glue-on type conductor fasteners shall not be allowed.

4. Support channels shall be installed as required for the support of raceways, cable trays, devices, enclosures, and other electrical equipment.

5. Iron and steel supports shall be separated from aluminum with a minimum ¼" neoprene or other non-metallic gasket.

6. When working with galvanized steel product (i.e. channel, conduit, equipment), paint any field cuts and or scratches with a cold galvanizing spray paint. Ensure manufacturer requirements are met.

7. Seismic bracing shall be provided as required per the Uniform Building Code.

8. Electrical equipment, materials, and/or luminaires shall be securely supported and mounted independently from building structure to ensure sagging or swaying. Other trade work (for example, mechanical ducting) shall not be used as a support means for electrical.

9. Support devices shall be sized appropriate to withstand four times the weight of equipment it supports. Bracing shall comply with structural engineering requirements and seismic design category "SDC" C, D, E.

END OF SECTION

SECTION 26 05 01
SELECTIVE ELECTRICAL DEMOLITION

1.GENERAL

1.1. SUMMARY

A. This section includes: Basic, selective, electrical demolition.

B. Electrical plans identifying the scope of demolition have been prepared pursuant to limited, visual, field observation and facility as-builts/record drawings.

C. Principal features of electrical demolition include, but are not limited to, the following:
   a. Demolition of select distribution equipment, including: panelboards, and disconnect switches.
   b. Demolition of select receptacles and equipment connections.
   c. Demolition of concealed conduit in floors and walls.
   d. Demolition of concealed conduit, abandoned in place, with conductors removed.
   e. Demolition of surface conduit.
   f. Demolition of select luminaires.
   g. Demolition of lighting control system and components.

1.2. RELATED SECTIONS

A. SECTION 26 05 00 COMMON WORK RESULTS FOR ELECTRICAL

B. Related Sections Under Other Divisions:

1. The General provisions, including supplementary conditions, of this contract apply to this section.

2. Grading, patching, and repairing of existing surfaces damaged pursuant to the scope of demolition, including but not limited to: walls, floors, ceilings, asphalt, concrete, and vegetation, as required by the Architect/Civil Engineer.

1.3. REQUIREMENTS

A. Electrical demolition work shall be performed in accordance of the latest published requirements of the following codes and standards:

1. National Fire Prevention Association Standard for Electrical Safety Requirements for Employee Workplaces (NFPA 70E).

2. California Code of Regulations, Title 8, Section 290.1 (CAL OSHA).

2. PRODUCTS

2.1. MATERIALS

A. Furnish labor, materials, equipment, components, and necessary services to support the electrical work show on the drawings and specified herein.

3. EXECUTION

3.1. CONDITIONS

A. Visit the site prior to bidding and observe the extent of demolition necessary pursuant to the contract documents. Should discrepancies be discovered between field conditions and the construction documents, notify the Architect/Engineer of record prior to bidding for instruction

and/or clarification. Allow for proper contingency when bidding in order to account for minor variances as stated in Section 26 05 00 COMMON WORK RESULTS FOR ELECTRICAL.

3.2. PREPARATION

A. De-energize electrical distribution equipment, appliances, conductors, and circuit components prior to removal. Ensure equipment is electrically safe prior to beginning work by disconnecting equipment from its energized source and testing for the absence of voltage and grounding as applicable. Ensure electrical conductors scheduled for removal serve only abandoned equipment and devices.

B. When work on energized equipment is required, perform work in accordance with applicable codes and standards. Proper personnel protective equipment (“PPE”) and Flame Resistant (“FR”) clothing shall be worn as required corresponding to the NFPA 70E Hazard Risk appropriate for working conditions. Use barricades and signage to prevent persons on the job site, not qualified or protected with proper PPE/FR clothing, from entering an area where work is being performed on energized equipment.

C. Provide temporary power, wiring, and connections as required to maintain power to existing loads scheduled to remain operable during construction. Temporary power to such loads shall be removed upon installation of permanent power. Coordinate power outages during cut over with owner 72 hours prior. Temporary power connection(s) may be subject to additional review and inspection by the authority having jurisdiction.

D. Flexible power cords may be used for temporary power provided they meet the following criteria:

1. Are rated not less than the capacity of the device(s) supplied by the cord.

2. Are free of insulation cracks, splices, damaged conductors, and damaged plug/receptacle.

3. Inspected by the user once every 90 days.

4. Protected from damage and do not pose a trip hazard while in use on the job site.

3.3. DEMOLITION

A. The removal of electrical infrastructure shall be done with care such to minimize damage of the existing structure or require excessive repair.

B. Field locate, disconnect, and remove existing electrical systems scheduled for removal. Equipment connections shall be removed to source of supply.

C. Field locate, disconnect, and remove existing luminaires scheduled for removal. Remove associated branch circuit conductors, conduit system, mounting accessories, etc.

D. Field locate, disconnect, and remove existing electrical distribution equipment, including feeder connections to source of supply, scheduled for removal.

E. Field locate, intercept, and relocate existing electrical systems to accommodate new construction. When electrical conduit and conductors are required to be intercepted and extended, do so with compatible materials and methods consistent with the existing installation, unless specified otherwise in the construction documents.

F. Abandoned wiring shall be removed and de-terminated from source of supply. Wiring that has been removed shall not be re-installed or re-used onsite.

G. Abandoned conduit shall be removed where exposed and in accessible locations (examples: surface mounted and or conduit mounted in accessible ceiling spaces). It shall be acceptable to abandon conduit in place provided conductors are removed, conduit ends are

cut flush and sealed in a manner that will prevent moisture penetration. Where conduit has been cut flush with adjacent surfaces, patch and repair surfaces in a manor acceptable to the Architect/Owner.

H. Devices, including but not limited to: receptacles, communication devices, and switches shall be removed. Remove associated cover plate(s), junction box(s), wiring, and conduit to source of supply. Where indicated on the construction documents, it shall be acceptable to maintain the existing junction box(s) and conduit system. Provide a blank cover plate at wall surface as appropriate.

I. The existing electrical installation not scheduled for demolition shall remain accessible.

3.4. COMPLETION

A. SYSTEM CUT OVER – The existing electrical, telephone, cable television, and fire alarm services shall remain installed and active until the new system is installed. The existing systems shall only be disabled and de-energized for the amount of time required to make the final cut over and obtain acceptance from the owner and authority having jurisdiction. System cut overs shall be prearranged with the owner a minimum of 72 hours in advance. A back-up power source or interim system shall be provided at the direction of the owner. The contractor is responsible for a complete, well planned, and scheduled system cut over..

B. Existing and new materials and equipment installed shall be clean and free of dirt and debris prior to final owner acceptance.

C. Existing materials and equipment scheduled to remain shall be free if damage. Make repair where necessary. Ensure electrical connections are tight, replace damaged or missing device cover plates, etc.

D. Where new branch circuits and feeders are extended from existing load- centers, panelboards, service, and/or distribution panels update the circuit breaker directory. The circuit breaker directory shall be typewritten, identify circuit number and load served, and be installed on the inner face of the panel cover door in a plastic sleeve.

E. Install existing materials and equipment in their new location as specified in the construction documents.

F. Allow the facility owner first right to salvaged equipment removed.

END OF SECTION 26 05 01

SECTION 26 05 19
LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES

1.GENERAL

1.1. SUMMARY

A. This section includes: Basic, selective, electrical demolition. This section includes: Basic wire and cable for feeder and branch circuit conductors.

B. Furnish labor, materials, equipment, components, and necessary services to support the electrical work show on the drawings and specified herein in this specification.

C. Principal features of this section include, but are not limited to the following:

1. Wire and cable
   a. Solid and stranded type
   b. NM-B (“Romex”) type
   c. SE (Service Entrance Cable) type
   d. MC and HCF type
   e. SO cord and SOW cable

2. Connectors, Lugs, and Pads

3. Splice Kits

4. Strain Relief Fittings

1.2. RELATED SECTIONS

1. SECTION 26 05 00 COMMON WORK RESULTS FOR ELECTRICAL

2. SECTION 26 05 33 RACEWAYS & BOXES FOR ELECTRICAL SYSTEMS

3. SECTION 26 05 53 IDENTIFICATION FOR ELECTRICAL SYSTEM

4. Related Sections Under Other Divisions:

   a. The General provisions, including supplementary conditions, of this contract apply to this section.

   b. Control, Signal, and Communications conductors shall be as required per the manufacturer of the equipment or as specified by others.

B. Related Sections Under Other Divisions:

1. The General provisions, including supplementary conditions, of this contract apply to this section.

2. Grading, patching, and repairing of existing surfaces damaged pursuant to the scope of demolition, including but not limited to: walls, floors, ceilings, and concrete, as required by the Architect/Civil Engineer.

1.3. REQUIREMENTS

A. Materials and installation shall be in accordance with the latest published requirements of the following codes and standards:

1. Materials and equipment shall be listed by an independent testing laboratory for the class of service intended (Underwriters Laboratories or equivalent).

2. IEEE Standard 510 – 1992, Recommended Practices for Safety in High Voltage and High Voltage Power Testing.

3. IEEE Standard 400 – 2001, Guide for Field Testing and Evaluation of the Insulation of Shielded Power Cable Systems.

4. National Electrical Code, NFPA 70.

5. National Fire Protection Code 70B, Recommended Practice for Electrical Equipment Maintenance.

6. Federal Specification A-A-59544.

7. UL 83 – Thermoplastic-Insulated Wires and Cables

8. ASTM B1 – Hard-Drawn Copper Wire

9. UL 486 A and UL 486 B – Wire Connections for Copper and Aluminum

10. NECA/AA-104-2012 – National Electrical Contractors Association Recommendation for Installing Aluminum Building Wire and Cable

2. PRODUCTS

2.1. MANUFACTURERS

1. Wire, cable, SE Cable: Southwire, Okonite, or engineer of record approved equal.

2. MC and HCF cable: Southwire, AFC, or engineer of record approved equal.

3. Connectors, Lugs, and Pads: Thomas & Betts or engineer of record approved equal.

4. Strain Relief Fittings: Hubbell, or equal.

B. MANUFACTURERS

C. Wire, cable, SE Cable: Southwire, Okonite, or engineer of record approved equal.

D. MI Cable: Thermon, Okonite or engineering approved equal.

E. MC and HCF cable: Southwire, AFC, or engineer of record approved equal.

F. SO cord and SOW cable: AWC or engineer of record approved equal.

G. Connectors, Lugs, and Pads: Thomas & Betts or engineer of record approved equal.

H. Splice Kits: 3M, Ideal.

I. Strain Relief Fittings: Hubbell, or equal.

J. Cable Racking & Insulators:

3. EXECUTION

3.1. CONDITIONS

A. Follow manufacturer instructions with respect to installation in low ambient temperatures. Cables installed in cold weather shall be handled with care and pulled slower.

B. Conductors shall have the proper listing for the environment installed (i.e. wet location, plenum ceiling, high/low ambient temperature). Conductors installed exterior, underground, or below floor slab shall require a wet location listing.

3.2. PREPARATION

A. Inspect cable and reels for damage prior to installation. Ensure cable ends are sealed to prevent entrance of moisture.

B. Consult cable manufacturer for approval of proper pulling equipment (i.e. wood reels, steel reels, etc.)

C. Ensure pulling lubricant is approved by the manufacturer and compatible with the cable. Lubricant that is made of flammable product, wax, and/or grease is not approved.

3.3. INSTALLATION

A. Conductors shall be installed in a permanent raceway or cable tray. Raceways shall be as sized to meet minimum code requirements or as noted on the drawings, whichever provides a larger cross-sectional area. Conduit raceway shall be installed prior to pulling conductors through.

B. Conductor bend radii shall not exceed manufacturer recommendations during installation.

C. Do not exceed manufacturer limitations for the amount of pulling tension applied to the conductors. Avoid pulling different conductor sizes, with different tension limitations, at the same time. Pull tension calculations shall be performed prior to pulling conductors to ensure maximum pulling stress allowed by the manufacturer.

D. Do not exceed manufacturer limitations with respect to maximum side wall pressure.

E. Direct burial cable (600V rated) shall be covered by a minimum of 24 inches of cover. Consult electrical drawings for additional trench specifications. Where there is a conflict between the drawings and specifications, the more restrictive requirement shall take prescience.

F. Strain relief fittings shall be used where the installation exceed manufacturer maximum stress allowanced for cables under vertical tension. Vertical raceways shall be supported at the top (or as close as practical), with interval supports per NEC Table 300.19 (A).

G. Dedicated neutral conductors shall be provided for each single phase circuit (i.e. one neutral conductor for each phase conductor) with the exception of multiwire branch circuits where either a common handle tie, two, or three pole circuit breaker is used in accordance with NEC 210.4 (B).

H. Conductors shall be as specified on the drawings. Conductors smaller than 12 AWG shall not be used for commercial projects.

I. Copper Wire and Cable, either solid, compact stranded, or stranded type shall be color coded pursuant to voltage and phase configuration. Phase A – Black (208V, 240V), Brown (480V). Phase B – Red (208V), Orange (240V, 480V). Phase C – Blue (208V, 240V), Yellow (480V). Neutral – White (208V, 240V), Gray (480V). Ground – Green (208V, 240V, 480V). Isolated Ground – Green w/ colored strip (208V, 240V, 480V).

J. MC and HCF type cable shall be allowed with the following restrictions and criteria:

1. For branch circuits in concealed, non-exposed, dry, areas where there are accessible ceiling spaces.

2. MC and HCF cable shall not be used for branch circuit homeruns. Homerun conductors shall be installed in conduit per 26 05 33 RACEWAYS & BOXES FOR ELECTRICAL SYSTEMS.

3. Cable runs shall be secured and supported at intervals not less than six feet unless otherwise permitted per code.

4. Cable runs shall be installed with the radius of the curve of the inner edge of any bend not less than seven times the cable diameter.

5. MC and HCF type cable shall be installed per the cable manufacturers through-penetration firestop system listed by Underwriters Laboratory, or equivalent listing agency.

6. MC and HCF cable shall not be used in exposed, underground, overhead, direct burial, or wet locations.

7. MC and HCF cable shall not be used for emergency or critical branch circuits in healthcare facilities except as permitted in NEC 517.30(C)(3)(3).

K. Nonmetallic-Sheathed Cable (Romex) shall be used in concealed, dry areas for residential wiring. Where nails and/or screws are likely to penetrate installed cable, a steel sleeve, plate or clip not less than 1.6mm in thickness shall be used to protect the cable or tubing.

L. Service Entrance Cable, Type SE, shall be used for residential service drops from the distribution or service panel to the load center. In addition, four wire residential equipment connections size 8 AWG and greater.

M. SPLICES

1. The contractor shall be responsible to assure that all splices are completed in a secure and permanent fashion, maintaining the integrity of the connection without faults or shorts. Where applicable, and required per installed conditions, the contractor shall take extra care to tape wrap spliced conductors.

2. Splices shall be minimized. Splices below grade shall be avoided, if required, the Engineer of Record will approve prior to installation. Feeder splices below grade shall be made be fully watertight and made with conductors encapsulated in epoxy.

N. CONNECTORS

1. Electrical connections shall be inspected periodically in accordance to NFPA 70B.

2. Where set screw connectors are used, ensure screws are tightened via a torque wrench or torque screw driver. Connectors shall be tightened to the value as required by the connector manufacturer.

3. Where set screw terminations are used with aluminum conductors, wire brush and apply an oxide inhibitor to bare aluminum conductors as recommended by the manufacturer. Oxide inhibitors must be compatible with the conductor type and listed for the application of use.

4. Where compression connectors are utilized, ensure the crimping tool utilizes is as per manufacturer recommendations. Where used with aluminum conductors, remove and excess oxide inhibitor from conductors after crimping is complete.

5. The use of pin connectors (adaptors) is acceptable for use if aluminum conductors are required to transition to an incompatible termination. However, the use of pin connectors shall be assembled to wire using special tooling as required by the manufacturer and UL. Pin connector installation shall be subject to the approval of the inspector of record.

6. In accordance to NECA / AA 104-2000 and NFPA 70B, Belleville spring washers shall be used when connecting aluminum conductors to existing copper bus bars.

O. The use of pulling compounds is allowed. Pulling compounds shall be applied before and/or during the pull.

P. Cable shall be installed in a neat and workmanlike manor. Cable shall be installed parallel or perpendicular to walls. Diagonal runs shall not be permitted. Cables routed in cable tray shall be organized and tie wrapped.

Q. Cables installed in cabinets and panelboards shall be bundled in a neat and orderly fashion in the wireway. Conductors shall be held clear of sharp edges.

R. Conductors in panels, cabinets, switchgear, motor control cabinets, pull boxes, etc. shall be labeled indicated branch circuit designation and source of supply.

S. Conductors shall be installed in an approved raceway. Each raceway shall also contain a grounding conductor size per NEC table 250.122.

3.4. TESTING

A. Insulation Resistance (IR) testing shall be conducted for branch circuit conductors rated 400 amps and higher in accordance with IEEE Standards. Testing shall be done with a dc potential of 500 to 1,000 volts dc. Avoid testing conditions such as humidity, moisture in conductors, and excess pulling lubricants.

B. The conductors shall be de-energized prior to resting. Remove grounds from the cable phase that will be tested only.

C. Test results shall be recorded and provided to the owner. Testing records shall include testing instrument used, feeder specifications, conductor insulation type, voltage applied, conduit specification, length of conductor, and megohm meter reading.

END OF SECTION 26 05 19

SECTION 26 05 26
GROUNDING AND BONDING OF ELECTRICAL SYSTEMS

1.GENERAL

1.1. SUMMARY

A. This section includes: Basic, selective, electrical demolition. This section includes: Basic wire and cable for feeder and branch circuit conductors. This section includes: Basic grounding and bonding of electrical systems.

B. Furnish labor, materials, equipment, components, and necessary services to support the electrical work show on the drawings and specified herein in this specification for a complete grounded and bonded system.

1.2. DEFINITIONS

A. Definitions shall be consistent with Article 100 of the National Electrical Code, with California State Amendments.

1. “Bonding Jumper” – A reliable conductor to ensure the required electrical conductivity between metal parts required to be electrically connected.

2. “Bonding Jumper, Equipment” – The connection between two or more portions of the equipment grounding conductor.

3. “Bonding Jumper, Main” – The connection between the grounded circuit conductor and the equipment grounding conductor at the service.

4. “Ground” – The earth.

5. “Grounded” (grounding) – Connected (connecting) to ground or to a conductive body that extends the grounded connection.

6. “Grounded, Solidly” – Connected to ground without inserting any resistive or impedance device.

7. “Grounded Conductor” – A system or circuit conductor that is intentionally grounded.

1.3. RELATED SECTIONS

1. SECTION 26 05 00 COMMON WORK RESULTS FOR ELECTRICAL

2. SECTION 26 05 19 LOW VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES

A. Related Sections Under Other Divisions:

1. The General provisions, including supplementary conditions, of this contract apply to this section.

1.4. REQUIREMENTS

A. Grounding and bonding of the electrical system shall be performed in accordance to the latest published requirements of the following codes and standards. Note, grounding and bonding of electrical systems shall be specific to electrical equipment and conductive material, establishing an effective ground-fault current path and personal safety.

1. National Electrical Code (NEC), with California State Amendments, Article 250 – Grounding

2. IEEE Standard 81 – Guide for Measuring Earth Resistivity, Ground Impedance, and Earth Surface Potentials for a Grounded System

3. IEEE Standard 142 – Recommended Practice for Grounding of Industrial and Commercial Power Systems

4. ASTM B1 – Hard-Drawn Copper Wire

5. ASTM B8 – Concentric-Lay-Stranded Copper Conductors, Hard, Medium-Hard, or Soft.

6. UL 83 – Thermoplastic-Insulated Wires and Cables

7. UL 467 – Grounding and Bonding Equipment

1.5. GUARANTEES

A. Materials and equipment shall be listed by an independent testing laboratory for the class of service intended (Underwriters Laboratories or equivalent).

2. MATERIALS

2.1. MATERIALS

A. Ground Rods – Copper-covered steel, minimum ¾" diameter x 10' long.

B. Grounding Conductor – Insulated green stranded (No. 8 AWG and larger) and solid (No. 10 AWG and smaller) copper. Insulated green with yellow stripe is acceptable pursuant to NEC.

C. Bonding Conductors – Shall be bare stranded copper, with the exception of solid bare copper for No. 10 AWG and smaller sizes as required per NEC.

D. Connectors, Clamps, Splices, Termination Components, & Mechanical Lugs - Industry standard type for connection grounds, bonding, splicing, tapping and similar. Shall be appropriate for the conductor size as permitted by the manufacturer.

E. Ground Bars – 10" L x ¼" thick copper ground bar with wall mounting kit. Ground bar shall include tapped holes for grounding conductor connections. Extend a #6 AWG copper ground wire from the main electrical service to the ground bar. Attach the ground wire to the ground bar via a cad weld connection.

3. EXECUTION

3.1. GENERAL CONDITIONS

A. Grounding shall be performed in accordance to the National Electric Code Article 250 requirements.

B. Drive ground rods and install grounding conductors prior to construction of concrete slabs, structural equipment pads, and general equipment housekeeping pads.

C. Grounding conductors shall be sized per the drawings. When a ground conductor size is not identified, the size shall be installed to meet minimum NEC requirements. Refer to NEC Table 250.66 for grounding electrode conductors and NEC Table 250.122 for equipment grounding conductors for grounding raceway and equipment.

D. Switches for controlling lighting loads shall be grounded in accordance to NEC Article 404. Switches shall not disconnect the grounding conductor unless otherwise indicated specifically on the drawings. The grounding circuit conductor for the lighting circuit shall be provided at the location where switches control lighting loads that are supplied by a grounded general-purpose branch circuit. Note exceptions as outlined specifically in NEC 404.4(C)1-7.

E. Snap switches, including dimmer and control switches, shall be connected to an equipment grounding conductor as outlined in NEC 404.9. Provide snap switches with an equipment bonding jumper connected to the equipment grounding termination of the snap switch.

F. Equipment grounding conductors, grounding electrode conductors, and bonding jumpers shall be connected by one or more of the following means as outlined in CEC 250.8: Listed pressure connectors, terminal bars, exothermic welding process, machine screw type fasteners, thread –forming machine screws, and connections part of a listed assembly. Connections made solely of solder shall not be permitted.

G. Where ground clamps and fittings are subject to physical damage, maintain protective covering by means of metal, wood, or equivalent. Coordinate in field.

H. Contact surfaces shall be thoroughly cleaned of nonconductive coatings (i.e. paint, lacquer, and enamel) before connections are made to insure good metal contact.

I. Grounding conductors shall be installed in every raceway, both metallic and non-metallic, unless specifically identified on the drawings or permitted per this specification.

J. Inaccessible Grounding Connections: Ground connections that are/will be inaccessible upon completion of construction shall be made via exothermic welds or clamp suitable for direct bury.

K. Ground Connections Requiring Periodic Testing, Not Subject to Physical Damage: Where periodic testing is required for ground connections, the grounding electrode, where the ground conductor connection is made, shall be exposed and stubbed up above grade (approx.. 3-4”), in an area not subject to physical damage.

L. Ground Connections Requiring Periodic Testing, Subject to Physical Damage: Where periodic testing is required for ground connections, the grounding electrode, where the ground conductor connection is made, shall be exposed (approx.. 3-4”), integral to a flush in grade pull box.

M. Obtain inspector of record acceptance as required and prior to below grade and/or inaccessible connections are completed and concealed.

3.2. INSTALLATION

A. Install bonding jumpers between sections of loosely jointed metallic raceways (i.e. expansion fittings and telescoping raceways) to ensure electrical continuity.

B. Where circuit conductors are spliced within a pull box, junction box, or terminated on equipment within or supported by a pull box, junction box, or like, the associated equipment grounding conductor shall be terminated at the box via listed grounding means in accordance to NEC Article 250.

C. Metal raceways, cable trays, enclosures, frames, fittings, and other metal non- current-carrying parts that are to serve as grounding conductors shall be bonded where necessary to ensure electrical continuity per NEC Article 250.96.

D. Ground non-current-carrying metallic parts of fixed, portable, and mobile equipment and associated fences, housings, enclosures, floors, and supporting structures.

E. Bond all conductive components of the conduit system, both interior and exterior, to the building grounding electrode system. Bonding connections shall be made as close as practical to the equipment ground bus.

F. Bond all conductive components of the communications raceways system, including but not limited to: conduit, cable trays, conduit sleeves anticipated for use with low voltage signaling or data cabling. Bonding connections shall be made via two (2) no. 10 AWG copper conductors. Maintain a minimum of 4” separation. Where exposed to physical damage,

install a no. 6 AWG copper conductor in lieu of the references no. 10 AWG copper conductor.

G. System Grounding:

1. The grounding electrode conductor shall be connected from the load side of the electrical service drop or lateral to the main electrical equipment ground terminal or bus at the service disconnecting means. The ground terminal or bus shall be secured via bolts to the equipment enclosure. A main bonding jumper shall be installed between the grounded conductor terminal bar, or bus, to the secondary service neutral bus at the main service equipment.

H. Grounding Electrodes: Grounding electrodes present at each building or structure shall be bonded together to the grounding electrode system, with exceptions as defined per the NEC. Grounding or bonding conductors shall be connected to the grounding electrode by exothermic welding, listed lugs, listed pressure connectors, listed clamps, or other listed means. Electrodes permitted per NEC Article 250, part III for grounding include:

1. Metal underground water pipe in direct contact with the earth for 10 feet and electrically continuous.

2. Metal building frame or structure.

3. Concrete-encased electrodes.

4. Ground Rings.

5. Rod and Pipe Electrodes.

6. Listed Electrodes.

7. Plate Electrodes.

8. Other Local Metal Underground Systems or Structures.

I. Secondary Equipment:

1. Panelboards, and Loadcenters – Ground conductors of feeders and branch circuits shall terminate at the equipment ground bar or bus. Provide ground bushings for metallic conduits connecting to the physical enclosure. Isolated ground conductors shall terminate at a dedicated/isolated ground bar or bus where indicated on the drawings.

2. Metallic structures, enclosures, piping, ductwork, raceways, pull boxes, junction boxes, outlet boxes, etc. associated with or in close proximity to shall be bonded and grounded as part of the electrical system.

3. Fixed Appliances fastened in place or connected by permanent, fixed, wiring methods shall be provided with a ground lug for connection of the branch circuit/feeder equipment grounding conductor.

4. Motors and Starters – Terminate grounding conductors at the ground lug integral to the enclosure, terminal box, etc.

5. Receptacles – Install an equipment bonding jumper connecting the grounding terminal of the receptacle to a grounded device box/junction box. The box shall be metallic. The equipment bonding conductor shall be terminated at the box by either a listed grounding clip or grounding screw. Size the equipment bonding conductor pursuant to the overcurrent device protecting the branch circuit conductors.

6. Floor Boxes – Shall be designed and listed to provide ground continuity between the

device and the box.

7. Luminaires – Shall be grounded through the associated conduit system. Where the luminaire manufacturer provides a green ground wire, connect it to the branch circuit grounding conductor

3.3. TESTING

A. Ground resistance testing shall be conducted per IEEE standards four-point fall –of-potential method to determine the resistance between the ground system and earth.

B. Ground resistance shall not exceed 25 ohms.

C. Ground resistance testing shall be performed in the presence of the authority having jurisdiction.

D. Ground resistance testing report shall be included in O&M documentation and provided to the owner prior to final acceptance.

E. GFI circuit breakers and GFI convenience receptacles shall be thoroughly tested during installation and at the completion of the project.

END OF SECTION 26 05 26

SECTION 26 05 33
RACEWAYS AND BOXES FOR ELECTRICAL SYSTEMS

1.GENERAL

1.1. SUMMARY

A. This section includes: Basic, selective, electrical demolition. This section includes: Basic wire and cable for feeder and branch circuit conductors. This section includes: Basic grounding and bonding of electrical systems. This section includes: Raceways and boxes for electrical systems.

B. Furnish labor, materials, equipment, components, and necessary services to support the electrical work show on the drawings and specified herein in this specification.

1. Principal features of this installation include:

a. Conduit and associated fittings

b. Innerduct

c. Wire Basket and Cable Tray

d. Cable sleeves

e. Outlet, device, pull, and junction boxes

f. Floor boxes

g. Conduit bodies

h. Wire Gutters

i. Handhole enclosures

j. Concrete pull boxes and vaults

k. Fiberglass/composite pull boxes and vaults

1.2. RELATED SECTIONS

1. SECTION 26 05 00 COMMON WORK RESULTS FOR ELECTRICAL

2. SECTION 26 05 53 IDENTIFICATION OF ELECTRICAL SYSTEMS

3. SECTION 26 05 19 LOW VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES

4. Related Sections Under Other Divisions:

a. The General provisions, including supplementary conditions, of this contract apply to this section.

b. Painting of exposed raceways and/or boxes as required by the architect.

c. Grading, patching, and repairing of existing surfaces, including but not limited to: asphalt, concrete, and vegetation, as required by the Architect/Civil Engineer.

1.3. REQUIREMENTS

A. Materials and installation shall be in accordance with the latest published requirements of the following codes and standards:

1. Materials and equipment shall be listed by an independent testing laboratory for the class of service intended (Underwriters Laboratories or equivalent).

2. National Electrical Code (NEC) with California State and local amendments.

3. UL 1 – Flexible Metal Conduit

4. UL 5A – Nonmetallic Surface Raceway and Fittings

5. UL 6 – Electrical Rigid Metal Conduit - Steel

6. UL 6A – Electrical Rigid Metal Conduit – Aluminum, Stainless Steel

7. UL 50 – Enclosures for Electrical Equipment, Non-Environmental Considerations.

8. UL 360 – Liquid Tight Flexible Steel Conduit

9. UL 514A – Metallic Outlet Boxes

10. UL 514B – Conduit, Tubing, and Cable Fittings

11. UL 514C – Nonmetallic Outlet Boxes, Flush-Device Boxes, and Covers

12. UL 651 – Schedule 40, 80, Type EB, and A Rigid PVC Conduit and Fittings

13. UL 651A – Schedule 40 and 80 High Density Polyethylene (HDPE) Conduit

14. UL 797 – Electrical Metallic Tubing – Steel

15. UL 797A – Electrical Metallic Tubing - Aluminum

16. UL 886 – Outlet Boxes and Fittings for Use in Hazardous (Classified) Locations

17. UL 1660 – Liquid-Tight Flexible Non-metallic Conduit

18. UL 1653 – Electrical Non-Metallic Tubing

19. UL 2225 – Standard for Cables and Cable-Fittings for Use in Hazardous (Classified) Locations

20. American National Standards Institute (ANSI) OS1 and OS2

21. National Electrical Manufacturers Association (NEMA) FB1 and 250

2. PRODUCTS

2.1. MATERIALS

A. Raceways

1. Raceway product shall be rated for use with 90 degree Celsius power wiring conductors.

2. Rigid Non-Metallic Conduit

a. Schedule 40, wall thickness of 0.113 inches, Polyvinyl Chloride (PVC) construction, Bell end feature, manufactured in accordance with NEMA standard TC-2 (conduit) and TC-3 (fittings).

b. Schedule 80, wall thickness of 0.154 inches, Polyvinyl Chloride (PVC)

construction, Bell end feature, manufactured in accordance with NEMA standard TC-2 (conduit) and TC-3 (fittings).

3. Galvanized Rigid Steel (GRS) Conduit – Hot-dip galvanized, zinc coated rigid steel conduit, manufactured in accordance with ANSI C80.1.

4. Aluminum Rigid Metal Conduit (RMC) – Conduit and fittings shall be manufactured of 6063 alloy in temper designation T-1 and in accordance with ANSI C80.5.

5. Aluminum Electrical Metallic Tubing (EMT) Conduit - Conduit and fittings shall be manufactured of 6005 aluminum alloy, 98.5% purity aluminum in accordance with ANSI C80.3.

6. Electrical Metallic Tubing (EMT) – Light gauge, steel raceway with zinc galvanized coating manufactured in compliance with ANSI C80.3.

7. Electrical Non-Metallic Tubing (ENT) – Pliable corrugated raceway of circular cross section made of Polyvinyl chloride (PVC) manufactured in compliance with NEMA Standard TC-13.

8. Flexible Metal Steel Conduit (FMC) – Galvanized, corrosion resistant, high strength steel alloy. Metal strip is helically formed into continuously interlocked flexible metal conduit. Manufactured in accordance with Federal Specification WW-C-566c.

9. Flexible Metal Aluminum Conduit (FMC) – Standard wall, high strength aluminum alloy. Metal strip is helically formed into continuously interlocked flexible metal conduit. Manufactured in accordance with Federal Specification WW-C-566c.

10. Liquid Tight Flexible Metallic Conduit (LFMC) – Manufactured with a spiral wound strip of heavy gauge, corrosion-resistant, hot-dipped galvanized steel. For 3/8" through 1-1/4" trade sizes, a square locked steel strip with an integral copper-bonding strip enclosed within the steel convolutions. For 1-1/2" through 4" trade sizes, the core is constructed with a fully interlocked steel strip. Flexible, rugged, flame retardant, PVC jacket extruded over the steel core. The jacket shall resist oils, mild acids and exposure to sunlight. Rated for temperature range of -30 to +80 degrees Celsius.

11. Liquid Tight Flexible Non Metallic Conduit - Manufactured with a spiral of rigid PVC reinforcement imbedded within a flexible PVC wall, resistant to oils, mild acids and exposure to sunlight. Rated for a temperature range of -30 to +80 degrees Celsius.

12. Conduit Supports – Unistrut, Caddy or engineer approved equal. Conduit supports shall consist of; clamps, straps, brackets, clips, j-hooks trapeze hangers, “C” channel strut etc.

13. Conduit Fittings – Thomas & Betts, O-Z Gedney, or engineer approved equal. Fittings shall be appropriate for use with the conduit system installed. Fittings shall consist of connectors, rigid and flexible, adaptors, bushings, liquid tight (as required), locknuts, etc.

B. Boxes

1. Manufacturers

a. Outlet Boxes – Bowers, Steel City, Raco, or engineer approved equal.

b. Weatherproof outlet boxes – Bell, Red Dot, or engineer approved equal.

c. Weatherproof outlet box “While-in-use” locking cover – Red Dot “CK” series or engineer approved equal.

d. Masonry Boxes - Bowers, Steel City, Raco, or engineer approved equal.

e. Pull boxes, Junction Boxes, and Gutters – Hoffman, Circle AW, or engineer approved equal.

f. Vaults (non-utility company use), Handhole enclosures – Christy, Oldcastle Enclosure Solutions, Brooks Products, or engineer approved equal.

g. Floor Boxes – Wiremold/Walker, Hubbell, or engineer approved equal.

C. Accessories

1. Manufacturers

a. Box Extension Adaptor – Bell, Red Dot, or engineer approved equal.

b. Putty Pads – 3M, Hilti, or engineer approved equal.

3.EXECUTION

3.1. GENERAL

A. Raceway systems shall be installed in accordance to uses permitted per code.

B. Raceways and boxes penetrating a listed fire rated assembles (i.e. walls, floors, and ceilings) shall be installed with use of an UL approved classified through-penetration fire stop systems. Fire Stop System installation must meet requirements of ASTM E 814, UL 1479 or UL 2079 tested assemblies that provide a fire rating equal to that of construction being penetrated.

C. Seismic Support shall consist of approved channel (either in combination or pierced), heavy/standard duty concrete inserts, hangers, nuts, hardware, general support fittings (i.e. Angle supports, beam clamps, pivot fittings, retrofit fittings, brace-anchor fittings, and hinge fittings). Electrical equipment shall be anchored and braced to meet the horizontal and vertical forces identified in the California Building Code.

3.2. CONDUIT SYSTEM

A. Minimum conduit size shall be ½", with the following exceptions:

1. When a larger size is required to meet Code.

2. Underground and/or under slab conduit shall be a minimum ¾".

B. Systems (i.e. power, control, communications, etc.) shall be installed in dedicated raceways. Systems shall not be combined within a raceway unless specifically identified in the construction documents.

C. Install conduit runs in accordance to the schematic representation as indicated on the drawings and as specified. Modify conduit runs to suite field conditions as accepted by the engineer of record.

D. Install conduit runs for branch circuits and or feeders where only circuit numbers are identified on the plans, without schematic conduit routing shown.

E. Install conduit runs in straight lines, parallel to planes of walls and/or ceilings, with uniform and symmetric elbows, offsets, and bends. Conduit shall not be run diagonally.

F. Be conscious of the elevation by which underground conduits are installed. The open conduit end at the building and/or where it transitions into distribution equipment shall be at a higher elevation such to prevent the infiltration of water through the conduit raceway.

G. Conduit shall be installed such that it does not interfere or block equipment, ingress/egress, or access hatches.

H. Conduit shall be securely fastened by means of clamps and/or straps as required per the NEC. Type 316 stainless steel straps and/or clamps shall be used with exposed PVC-coated rigid steel conduit. Provide appropriate conduit hangars, supports, fasteners, and seismic restraints.

I. Liquid-tight, flexible conduit shall be used in short lengths as required for final motor connections and/or vibrating equipment.

J. Conduit bends shall be made such that the conduit will not be damaged and the internal diameter of the conduit will not be effectively reduced. Form or field bend conduit with appropriate tools. Conduit shall be routed such that it does not exceed a cumulative angular sum of 360 degrees in bends between junction boxes, pull boxes, conduit bodies, handholes, and vaults

K. When re-using existing raceway(s) and/or installing new raceways, verify raceway(s) are free of internal debris and are not crushed or creased prior to installing conductors or cables. The use of a mandrel may be required. The contractor shall replace conduit sections that are determined to be damaged and/or obstructed.

L. Spare and empty conduits shall be properly plugged with the appropriate cap and/or insert. The use of tape, “duct” tape or like, will not be acceptable. Spare conduit identified on the drawings shall be retained as spare and shall not be used during construction unless prior authorization is given from the engineer of record.

M. Special attention shall be paid to atmospheric conditions (i.e. Corrosion, sunlight, chemicals, abrasion, moisture) and occupancies pursuant to the NEC. Raceway systems shall be suitable for the environment in which they are installed.

N. Use of dissimilar metals shall not be allowed. Boxes, fittings, enclosures, and conduit supports shall be of the same metal, with or without coatings, as the conduit type.

O. Galvanized Rigid Steel (GRS) risers shall be used where conduit runs are installed equal or in excess of 150 LF. GRS elbows shall be used where the top of the elbow is installed less than 18 in. below finished grade, with conduit rising up from below grade to terminate at an equipment enclosure, disconnect switch, device, machinery, etc. above grade. GRS risers and elbows shall either be PVC coated, as identified in this specification, or tape wrapped to a minimum of 3” above finished grade or the top of the equipment pad or slab, whichever is applicable to the installation condition.

3.3. RACEWAYS

A. Rigid Non-Metallic Conduit – Rigid Polyvinyl Chloride (PVC) schedule 40 and/or 80. Utilize below grade, in/under slab or foundation, not where subject to physical damage or at operating temperatures outside of product listing. Cut ends shall be trimmed inside and outside to remove rough edges.

B. Galvanized Rigid Steel (GRS) Conduit - Utilize where exposed between +18” below grade and +8’ above finished grade where exposed to physical damage. Cut ends shall be reamed or otherwise finished to remove rough edges. Tape wrap where located below grade.

C. Electrical Metallic Tubing (EMT) – Utilize exposed or concealed, where not subject to physical damage, underground, and in/under slab. Couplings and connectors used with shall be made up tight and of die cast, insulated/non-insulated, set screw type. Stainless steel fittings shall be used in high corrosive areas. Compression type, weatherproof fittings shall be used in damp and wet locations.

D. Electrical Non-Metallic Tubing (ENT) – Shall be used in concealed, dry locations within walls, floors, and ceilings. Special attention shall be paid to buildings exceeding three floors above grade. Do not use where subject to physical damage, in direct bury applications, in hazardous (classified) locations, in theaters, where exposed to direct sunlight, or at operating temperatures outside of product listing. Fittings, outlet boxes, and cement shall be

designed and listed for use with ENT. ENT shall be color coated as follows: BLUE for branch circuiting, YELLOW for communications, and RED for fire alarm and emergency systems. Where nails and/or screws are likely to penetrate installed ENT, a steel sleeve, plate or clip not less than 1.6mm in thickness shall be used to protect the tubing.

E. Flexible Metallic Tubing (FMT) - May be used in interior exposed/concealed locations. Do not use in wet locations, hoistways, hazardous (classified) locations, underground or embedded in concrete/aggregate, and where subject to physical damage. All cut ends shall be trimmed or otherwise finished to remove rough edges, except where fittings that thread into the convolutions are used. Flexible metal conduit shall not be used in cumulative lengths exceeding 30 linear feet. Liquid Tight Flexible Conduit shall be installed in damp and wet locations. Fittings shall be set screw, squeeze type, use for appropriate damp, wet, or dry location. Fittings shall be of grounding type.

3.4. Conduit Supports – Provide a conduit supports system consisting of; clamps, straps, brackets, clips, j-hooks trapeze hangers, “C” channel strut etc. The use of J-hook style supports shall be restricted to not exceeding 1” conduit and wood frame construction. Ensure support is provided with isolation material or cushion as required for shock absorption, sound and vibration isolation, protection from corrosion and abrasion, and allowance for expansion and contraction. Conduit supports shall be selected for use given the conduit size and weight. Follow manufacturer recommendations for pipe spacing when supported, bolt torque. Conduit supports are subject to the approval of the AHJ. Corrections required to obtain approval shall be the sole responsibility of the contractor.

3.5. Conduit Fittings – Fittings shall be appropriate for use with the conduit system installed. Fittings shall consist of connectors, rigid and flexible, adaptors, bushings, liquid tight (as required), locknuts, etc. Connection devices and or fittings that depend solely on solder shall not be used for grounding and bonding. Protect fittings from physical damage. Fittings shall be tight using suitable tools. Fittings shall be insulated when used with raceways that contain 4 AWG or larger conductors per NEC 300.4.

3.6. BOXES

A. Junction boxes, pull boxes, and conduit bodies shall be sized a minimum per NEC Article 314. Adhere to volume and fill calculations as identified in the code.

B. Metallic boxes shall be bonded and grounded in accordance to NEC Article 250.

C. Listed weatherproof boxes, conduit bodies, and fittings are required for use in damp and wet locations.

D. Terminal blocks shall be installed in junction/terminal boxes as required.

E. Pursuant to NEC Article 314, boxes installed in walls or ceilings with a surface of concrete, tile, gypsum, plaster, or other noncombustible material, using a flush-type cover or faceplate shall be installed so that the front edge of the box, plaster ring, extension ring, or listed extender will not be set back of the finished surface more than a ¼ in. In walls and ceilings constructed of wood or other combustible surface material, boxes, plaster rings, extension rings, or listed extenders shall be flush with the finished surface or project therefrom. In addition, there shall be no gaps around a flush-type cover or faceplate greater than 3/8 in. at the edge of the box.

F. Junction and pull boxes shall be installed such that access is not restricted by obstructions such as, but not limited to: piping, ladders, and equipment.

G. Outlet boxes and junction boxes installed in fire rated construction shall be installed Metallic and nonmetallic boxes that are classified for fire resistance by Underwriters Laboratories (UL) Inc. The spacing between boxes cannot be less than 24 inches, however closer spacing shall be permitted where wall opening protective materials are installed according to the requirements of their classification. These materials shall be found under CLIV in the Fire

Resistance Directory published by UL. Boxes shall be installed so that the surface area of individual boxes does not exceed 16 square inches, and the aggregate surface area of the boxes does not exceed 100 square inches per 100 square feet of surface area.

H. Outlet Boxes

1. Non-metallic outlet boxes are permitted for residential applications only where used with type NM-B “Romex” cable.

2. Galvanized Steel outlet boxes shall be used throughout unless otherwise noted in this specification. Metallic boxes shall be grounded and bonded in accordance to NEC requirements.

3. Luminaire boxes and lampholders shall be listed for such purpose and shall have threaded entries or hubs. Outlet boxes supporting luminaires shall be rated for 50 lbs. or less. Luminaires weighing over 50 lbs. shall not be supported from the outlet box and shall be supported independently from the building structure.

4. Paddle Fan outlet boxes shall be metallic and listed to support fans up to 70 lbs. Paddle fans weighing over 70lbs. shall be supported independently from the building structure. Utilize bracing/bar hangers between ceiling framing.

I. Weatherproof outlet boxes and covers shall be die-cast metal, powder-coated silver finish, corrosion resistant, provided with threaded conduit ends, and NEMA 3R rating.

J. Outlet boxes for receptacles installed outdoors in a damp and/or wet locations shall have an enclosure for the receptacle that is weatherproof when the receptacle is in use (i.e. “While-in-use” over). “While-in-use” covers shall be metallic and the appropriate gang construction (i.e. Single, double) as required for the device indicated on the drawings.

K. Masonry Boxes shall be suitable for use imbedded in concrete or masonry and shall be protected from corrosion.

L. Floor Boxes

1. Shall be cast iron when installed in floor slabs at grade level. Stamped steel construction is acceptable when installed in floors not at grade. Non-metallic floor boxes are not approved for installation on this project.

2. Floor boxes shall be fully adjustable before and after floor slab pour, accommodating a minimum floor slab pour depth of 3.75”. Provide floor boxes with quantity, configuration, and type of device(s) as indicated on the drawings. Floor box gang construction (ie. Single, double) as required per the quantity of devices noted on the drawings. Floor boxes shall be flush in the floor and provided with appropriate covers, plates, and flanges. Flanges shall be suitable for the type of flooring installed (ie. Carpet, wood, or tile). Floor boxes shall accommodate threaded hub sizes of ¾” and 1” conduits or as identified on the drawings.

3.7. ACCESSORIES

A. Box Extension Adaptors shall be provided with either die cast aluminum or cast iron, with gasket construction appropriate for use with the outlet box intended. Extensions and adaptors shall be of appropriate gang construction (i.e. Single, double) as required and shall be either round, square, or flanged as required.

B. Putty Pads shall be moldable and listed for the appropriate use (i.e. Fire stop or sound). Prior to application excess water, dirt, oil, or debris shall be removed. Ensure the pad size is selected appropriately to ensure the entire surface of the box is covered with a smooth and even thickness. Trim excess putty pad material to allow for the application of conduit fittings. Conduits shall be sealed as they enter/leave the box. Follow manufacturer application instructions.

C. Provide outlet box mounting brackets, hangars, extension, plaster rings, studs, clamps, and straps as required.

END OF SECTION 26 05 33

SECTION 26 05 53
IDENTIFICATION OF ELECTRICAL SYSTEMS GENERAL

1.1. SUMMARY

A. This section includes: Identification of electrical systems.

B. Furnish labor, materials, equipment, components, and necessary services to support the electrical work show on the drawings and specified herein in this specification.

1. Principal features of this installation include identification of electrical systems by means of:

a. Warning Signs

b. Warning ribbon

c. Arc Flash Signage

d. Name Plates

e. Device Labels and tags

1.2. RELATED SECTIONS

1. SECTION 26 05 00 COMMON WORK RESULTS FOR ELECTRICAL

2. SECTION 26 05 33 RACEWAYS AND BOXES FOR ELECTRICAL SYSTEMS

3. SECTION 26 24 16 PANELBOARDS AND LOAD CENTERS

4. SECTION 26 27 26 WIRING DEVICES

5. SECTION 26 28 16 ENCLOSED SWITCHES AND CIRCUIT BREAKERS

A. Related Sections Under Other Divisions:

1. The General provisions, including supplementary conditions, of this contract apply to this section.

1.3. REQUIREMENTS

A. Identification of electrical systems shall be performed and installed in accordance to the latest publication of the following codes and standards:

1. National Electrical Code (NEC) with California State Amendments.

2. ANSI Z535.4 Guidelines – Product Safety Signs and Labels

3. National Fire Prevention Association Standard for Electrical Safety Requirements for Employee Workplaces (NFPA 70E).

1.4. PERFORMANCE

A. Labels shall be suitable for the environment where they are installed with consideration given to exposure to chemicals, sunlight, and abrasion.

2. PRODUCTS

2.1. MATERIALS

A. Nameplates

1. Normal Power: Black lamicoid with white letters fastened with round head, stainless steel screws.

2. Emergency Power: Red lamicoid with white letters fastened with round head, stainless steel screws.

B. Warning Ribbon – Min. 6” wide made of polyethylene film or detectable laminated aluminum designed for direct burial. Warning ribbon shall not be made of materials that will biodegrade.

C. Warning Signs – Printed adhesive polyester protected by clear polyester laminate for general use. Provide rigid polyethylene signage where abrasion is of concern or where adhesive signage is not appropriate.

3. EXECUTION

3.1. INSTALLATION

A. Warning Signs

1. Rooms and other guarded locations that contain exposed, live parts shall have conspicuous warning signs posted at the entrance forbidding unqualified persons to enter.

2. Are required where electric energy is provided to equipment from more than one source.

3. Warning signs shall be provided on utilization equipment that has 120VAC control voltage source used for interlocking. The panel, circuit number, and conductor tag of the control voltage source disconnect shall be identified.

B. Warning Ribbon

1. Warning ribbon or tape shall be installed in conduit trenches as identified on the drawings. Pursuant to the NEC, warning tape shall be required for conductors that are not concrete encased and buried 18” below grade or more.

2. Warning ribbon or tape shall be installed in trenches at not more than 12” above the underground installation.

C. Arc Flash Signage

1. Electrical equipment, such as switchboards, panelboards, industrial control panels, meter socket enclosures, and motor control centers, that are in other than dwelling occupancies, and are likely to require examination, adjustment, servicing, or maintenance while energized shall be field marked to warn qualified persons of potential electric are flash hazards. The marking shall be located so as to be clearly visible to qualified persons before examination, adjustment, servicing, or maintenance of the equipment pursuant to NEC 110.16.

2. Arc Flash labels shall meet the requirements of NFPA 70E and contain the following information:

a. At least one of the following:

1. Calculated available incident energy and corresponding working distance

2. Minimum arc rating of clothing

3. Required PPE (Personal Protective Equipment)

4. Highest Risk Category (HRC) for the equipment

b. Nominal system voltage

c. Arc flash boundary

D. Name Plates

1. Nameplates shall be provided for electrical equipment enclosures such as, but not limited to: service and/or distribution switchgear, motor controls, transformers, panels, load centers, lighting control panels, fire alarm control panels, cabinets, motors, generators, inverters, uninterruptible power supplies (UPS), and transfer switches.

2. Nameplates shall be provided for separately enclosed devices such as, but not limited to: circuit breakers, disconnect switches, contactors, time clocks, and relays.

3. The following, minimum, information shall be included on equipment and enclosed device identification:

a. Voltage Rating

b. Source

c. Load Served

d. Circuit/Feeder designation

e. Primary and secondary voltages and load served (transformers only).

E. Available Fault Current

1. Service equipment, excluding dwelling units shall be marked with the available fault current and date of calculation / equipment installation in accordance to CEC 110.24(A).

F. Device Labels

1. Switches not within sight from the load controlled.

2. Junction boxes shall be labeled with the branch circuit and/or feeder conductors passing through the box. Hand-written labeling via permanent marker is acceptable provided it is in a visible location and is legible.

G. Raceway Identification (Tags)

1. Identify conductors at each termination. Tag conductors with sleeve type labels.

2. The following, minimum, information shall be included on wire and cable identification:

a. Circuit number or load identification tag number,

b. Origin from source.

c. Destination to load.

H. Grounding Conductors larger than 6 AWG

1. Grounding conductors larger than 6AWG shall have the insulation or covering marked with green tape or green adhesive labels at the termination pursuant to NEC 250.119.

END OF SECTION 26 05 53

SECTION 26 09 43
NETWORK LIGHTING CONTROLS

1.1. SUMMARY

A. This section includes specification, installation and commissioning activities for a network lighting control system, including furnishing of all labor, equipment, materials, and performing all operations in connection with the installation of the network lighting control system as identified on the contract documents and as directed by the Architect / Engineer of record.

B. Furnish labor, materials, equipment, components, and necessary services to support the lighting control system description and associated electrical work show on the drawings and specified herein.

1. Principal features of this installation include:

a. Control hardware, software, networking controls, and system monitoring.

b. Lighting control sensors shall be mounted, i.e. Wall mount, ceiling mount, corner mount, integral to luminaire, interior, exterior, etc. as indicated on the drawings or specified herein.

c. Lighting control sensors shall be provided either passive infrared (“PIR”), Passive Dual Technology (“PDT”), Line voltage, low voltage, standard coverage, extended coverage, as indicated on the drawings or specified herein.

d. Lighting control sensors shall provide control of receptacles and other equipment where required by the California Code of Regulations Title 24, AHJ, or ownership project criteria.

1.2. RELATED SECTIONS

1. SECTION 26 05 00 COMMON WORK RESULTS FOR ELECTRICAL

2. SECTION 26 05 33 RACEWAYS AND BOXES FOR ELECTRICAL SYSTEMS

3. SECTION 26 05 19 LOW VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES.

4. SECTION 26 27 26 WIRING DEVICES

5. ~~SECTION 26 56 70 LIGHTING ACCEPTANCE TESTING~~

1.3. RELATED SECTIONS UNDER OTHER DIVISIONS

1. The General provisions, including supplementary conditions, of this contract apply to this section.

1.4. SYSTEM DESCRIPTION

A. SUBMITTALS AND SHOP DRAWINGS

1. The following information shall be submitted to the Engineer for approval.

a. Provide manufacturer data sheets, settings, installation requirements, wiring diagrams, etc. for all product. Submittal documentation be reviewed for completeness, with inclusion of devices required for a fully functioning system as represented on the construction documents.

b. System bill of materials, including device quantity.

c. Vendor drawing identifying the following:

1. Project specific lighting control drawing package included sensor layout with coverage zones indicated. The drawing package shall be prepared on to-scale architectural building floor plans.

2. Sensor specification and quantity, corresponding to the project bill of materials.

3. Lighting control schedule(s)

4. Switch assignment schedule(s)

5. Sequence of operations matrix

6. Device wiring diagrams

7. System backbone schematic

8. Confirmation of lighting control compatibility with specified lighting type (i.e. lighting load type).

9. Manufacturer installation requirements

10. List of manufacturer assumptions

2. Upon receipt of approval by the Engineer of record, the following shall be submitted to the building Owner for approval:

a. Switch assignment schedule(s)

b. Switching engraving details

c. Sequence of operation matrix

d. Scheduling date proposed for onsite manufacturer technical representative commissioning activities.

3. It is understood that the vendor prepared control system submittal is for informational purposes only. However, sufficient information shall be provided in the vendor submittal to demonstrate that the control system can achieve the basis of design as represented on the contract documents for engineer of record evaluation for completeness and California Energy Code compliance.

4. Procurement of lighting control product shall not be pursued without approval from the Engineer of record and building owner.

1.5. DELIVERY, STORAGE AND HANDLING

1. Equipment shall be handled and stored in accordance with manufacturer’s instructions. One (1) copy of these instructions shall be included with the equipment at time of shipment.

2. Lighting control system panels and components shall be protected during construction, and before final acceptance from the owner, in a manor to prevent paint, dust, and construction debris from defacing the finish of the equipment. Prior to final acceptance the contractor shall clean lighting control components and remove construction debris and packaging material.

1.6. OPERATION AND MAINTENANCE MANUALS

1. Equipment operation and maintenance manuals shall be provided with each assembly

shipped and shall include instruction leaflets, instruction bulletins and renewal parts lists where applicable, for the complete assembly and each major component.

1.7. GUARANTEES

A. Materials and equipment shall be listed by an independent testing laboratory for the class of service intended (Underwriters Laboratories or equivalent).

B. The manufacturer of this equipment shall have produced similar electrical equipment for a minimum period of five (5) years. When requested by the Engineer, an acceptable list of installations with similar equipment shall be provided demonstrating compliance with this requirement.

2. PRODUCTS

2.1. MANUFACTURERS

A. The listing of specific manufacturers above does not imply acceptance of their products that do not meet the specified ratings, features and functions. Manufacturers listed above are not relieved from meeting these specifications in their entirety. Products in compliance with the specification and manufactured by others not named will be considered only if pre-approved by the Engineer ten (10) days prior to bid date.

1. Acuity Brands, i.e. Acuity Controls

2. Lutron Lighting Controls

3. Legrand Lighting Controls

2.2. MANUFACTURER SERVICES

A. Preparation of a lighting control system design.

B. Commissioning activities, including system programming and owner training shall be conducted by a trained service technician from the manufacturer of the lighting control equipment or manufacturer designated trained professional. The technician shall have a minimum of two (2) years’ service experience in the lighting control industry. The technician's name shall appear on the lighting control product submittals and a letter shall be sent to the project engineer.

2.3. WIRING CONFIGURATIONS

A. Lighting control sensors shall be installed per manufacturer wringing diagrams. Should wiring diagrams be included on the drawings, they are for reference only.

2.4. ACCESSORIES

A. User interfaces shall be provided with appropriate buttons, sliders, interface screens, etc. to allow complete control of lighting and devices in space as per owner requirements.

B. Provide engravable user interfaces with engraving identifying function of each button per owner input and designation.

2.5. FINISHES

A. Wall mounted sensors and associated cover plates shall match wiring device specifications.

B. Ceiling and corner mount sensors shall be white.

3. EXECUTION

3.1. INSTALLATION

A. The contractor shall be responsible for system installation, start-up activation, and field quality control. Services shall include, although not be limited to the following:

1. Pre-installation visit to the job site to review equipment submittals and verify method by which the system should be wired.

2. During job progress, make periodic job site visits to verify installation and wiring of system.

3. Upon completion of wiring, final connections shall be made under the supervision of this technician, and final checkout and certification of the system.

4. At the time of final checkout, technician shall give operational instructions to the owner and/or his representative on the system.

B. Sensors shall be installed and programmed as per manufacturer's instructions.

C. Sensors shall be installed with complete electrical connections.

D. Verify with manufacturer's representative that the sensors are laid out in compliance to manufacturer’s published sensing distribution. At no cost to the owner, provide additional sensors for complete coverage as may be required.

3.2. FIELD QUALITY AND CONTROL

A. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect components, assemblies, and equipment installations, including connections, and to assist in testing.

B. Tests and Inspections: Tests shall be witnessed by Owner's Representative.

C. Verify connection of power wiring and load circuits.

D. Verify connection and location of controls.

E. Verify lighting management hubs and system data program is installed.

F. Verify proper connection of panel links (low voltage/data).

G. Verify addresses have been assigned to exterior photo sensors and lighting control devices.

H. Verify system operation control by control.

I. Verify proper operation of manufacturer's interfacing equipment.

J. Verify proper operation of servers, client station PC, and installed programs.

K. Network lighting controls will be considered defective if it does not pass tests and inspections.

L. Correct wiring deficiencies and replace damaged or defective lighting control devices.

M. Retest and confirm proper operation.

N. Provide a report in table format including each room or space that has occupancy sensors and/or light level sensors installed. Indicate the following for each space:

1. Date of test or inspection.

2. Pole Number and Fixture Address.

3. Quantity and Type of each device installed

4. Sequence of Operation for the control each zone controlled.

5. Verification that the control of each space complies with the Sequence of Operation.

6. Test Reports for each device.

7. Photo control Sensors indicate the following:

   a. Ambient light level at which the lights turn on (low level).

   b. Ambient light level at which the lights turn off.

   c. Location of light level readings.

   d. Time delay settings.

8. Manual Controls indicate the following:

   a. Light fixture output steps up to 100 percent upon manual activation.

   b. Light fixture output steps down to low level upon manual activation.

9. Light fixture output resets to default low level photocontrol operation after lights are turned off (by methods, manual or automatic means).

10. Time delay settings

3.3. DEMONSTRATION AND TRAINING

A. Before Substantial Completion, arrange and provide a one-day Owner instruction period to designated Owner personnel. Set-up, starting of the lighting control system and Owner instruction includes:

1. Confirmation of entire system operation and communication to each device.

2. Confirmation of operation of individual relays, switches, and sensors.

3. Confirmation of system Programming, photocell settings, override settings, etc.

4. Provide training to cover installation, maintenance, troubleshooting, programming, and repair and operation of the lighting control system.

3.4. PRODUCT SUPPORT AND SERVICE

A. Factory telephone support shall be available at no cost to the owner. Factory assistance shall consist of assistance in solving application issues pertaining to the control equipment.

END OF SECTION 26 09 43

SECTION 26 24 16
PANELBOARDS AND LOADCENTERS

1.1. SUMMARY

A. This section includes: Panelboards and load centers.

B. Furnish labor, materials, equipment, components, and necessary services to support the electrical work show on the drawings and specified herein in this specification. Panelboards and load centers shall be furnished and installed with the quantity, rating, and type of circuit breakers as shown on the contract documents.

1.2. RELATED SECTIONS

1. SECTION 26 05 00 COMMON WORK RESULTS FOR ELECTRICAL
2. SECTION 26 05 53 IDENTIFICATION FOR ELECTRICAL SYSTEM
3. SECTION 26 05 33 RACEWAYS AND BOXES FOR ELECTRICAL SYSTEMS
4. SECTION 26 05 19 LOW VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES
5. SECTION 26 05 26 GROUNDING FOR ELECTRICAL SYSTEMS

A. Related Sections Under Other Divisions:

1. The General provisions, including supplementary conditions, of this contract apply to this section.
2. Painting of panelboards and load centers as required.

1.3. SYSTEM DESCRIPTION

A. SUBMITTALS AND SHOP DRAWINGS

1. In addition to Section 26 05 00 COMMON RESULTS FOR ELECTRICAL requirements, the following shall be submitted to the Engineer of Record prior to procurement:
    a. Dimensioned outline drawing.
    b. Component list.
    c. Knockout configurations.
    d. Cable terminal sizes, including maximum conductor rating that can be terminated.
    e. Enclosure and door assembly.
    f. Ratings including:
        1. Continuous Current (i.e. “Ampacity”)
        2. Voltage and phase
        3. Short Circuit Rating in “kAIC”.
    g. Circuit Breaker ratings, including:

1. Breaker type (i.e. plug-in, bolt on)
2. Continuous Current (i.e. “Ampacity”)
3. Voltage and phase
4. Interrupting Rating in “kAIC”.

2. The following shall be included in the O&M manual and provided to the facility owner prior to final acceptance:
   a. Final as-built conditions documenting changes made during construction.
   b. Wiring Diagrams
   c. Certified production test reports
   d. Installation information, including equipment anchorage provisions.

1.4. GUARANTEES

A. Independent testing laboratory listing is required. Note Underwriters Laboratories, “UL”, is referenced throughout this specification. However, equivalent listing agencies will be accepted.

B. Independent testing shall be conducted for all GFI circuit breakers installed in main panelboards. Results shall be included in O&M documentation and provided to the owner prior to final acceptance.

C. The manufacturer of the assembly shall be the manufacturer of the major components within the assembly.

D. For the equipment specified herein, the manufacturer shall be ISO 9001 or 9002 certified.

E. The manufacturer of this equipment shall have produced similar electrical equipment for a minimum period of five (5) years. When requested by the Engineer, an acceptable list of installations with similar equipment shall be provided demonstrating compliance with this requirement.

1.5. REQUIREMENTS

1. Panelboards, load centers, and associated components and circuit breakers shall be manufactured, tested, and installed in accordance to the latest published requirements of the following codes and standards:
2. National Electrical Code (NEC) with California State and local jurisdiction amendments.
3. UL 67 – Standards for Panelboards
4. UL 50 – Standards for Cabinets and Boxes
5. UL 489 – Standards for Molded Case Circuit Breakers
6. UL 1699 – Arc-Fault Circuit Interrupters
7. UL 869 – Standards for Service Equipment
8. UL 486B - Requirements for Wire Connectors and Soldering Lugs
9. Federal Specification W-C 375 A and B – Circuit Breakers

10. Federal Specification W-P-115c – Panel, Power Distribution

11. NEMA Standard PB1 – Panelboards

12. NEMA Standard AB3 – Molded Case Circuit Breakers

2. PRODUCTS

2.1. MATERIALS

A. The listing of specific manufacturers below does not imply acceptance of their products that do not meet the specified ratings, features and functions. Manufacturers listed above are not relieved from meeting these specifications in their entirety. Products in compliance with the specification and manufactured by others not named will be considered only if pre-approved by the Engineer of record ten (10) days prior to bid date.

1. Eaton Cutler Hammer / Eaton Corporation

2. Square-D

3. Siemens

B. RATINGS

1. Shall be rated for AC voltage and short-circuit as indicated on the drawings. The short-circuit rating shall not be less than 10,000 amperes rms symmetrical.

2. Shall be labeled with the UL short-circuit rating from the manufacturer.

C. CONSTRUCTION

1. Dead-front construction shall be utilized.

2. Interiors, with the exception of the branch circuit breakers, shall be completely factory assembled with a main breaker, main lugs only, or double lugs as specified on the drawings.

3. Where double lugs are not permitted by the authority having jurisdiction, provide a pull box or gutter, sized per NEC code as required for connections. The pull box or gutter shall be located adjacent to the panelboard/load center enclosure.

4. Interiors shall be designed so that circuit breakers can be replaced without disturbing adjacent units and without removing the main bus connectors. In addition, interiors shall be designed so that circuits may be changed without machining, drilling or tapping.

5. Physical means must be provided to prevent the installation of more over-current devices than that number for which the enclosure was designed. Full size breakers are required.

6. Dust filters shall be installed for vented openings.

D. BUS

1. Bus bars for the main and cross connectors shall be of copper construction in accordance with UL (or equivalent) standards. Busing shall be braced throughout to conform to industry standard practice governing short-circuit stresses in load centers. All connection points shall be tin-plated copper. Bus bars shall be mounted to a rigid metal backpan.

2. Neutral bus shall have a suitable lug for each outgoing feeder requiring a neutral connection that is the same of same ampacity as the branch circuit.

E. WIRING/TERMINATION

1. Wire, connectors, and terminals shall be of the anti-turn solderless type and suitable for copper or aluminum wire of the sizes indicated in the construction documents. Connectors shall meet UL 486B.

2. Load centers shall be suitable for use with 60/75 degrees Celsius rated wire.

F. CIRCUIT BREAKERS

1. Molded case type circuit breakers shall be 3/4-inch wide per pole. Multi-pole circuit breakers shall be of a stack pole design to provide electrical phase isolation and have an internal common trip.

2. Circuit breaker operating handles shall indicate “ON” and “OFF” breaker positions.

3. Breakers shall be a minimum of 125-ampere frame. Breakers 10- through 125-ampere trip size shall take up the same pole spacing.

4. Each pole of the circuit breaker will have inverse time delay overload and instantaneous short-circuit protection by means of both thermal and magnetic sensors.

5. The circuit breaker calibration shall not be affected by environmental changes in relative humidity. Breakers shall be calibrated after assembly.

6. Circuit breakers shall be operated by a toggle-type handle and multi-pole circuit breakers shall have an internal common trip mechanism. The circuit breakers shall incorporate trip mechanisms that are mechanically trip-free from the handle. The handle position shall provide good visual trip indication.

7. Contacts shall be of non-welding silver alloy.

8. Each pole shall contain phase barriers and arc quenching.

9. Circuit breakers shall be molded case thermal-magnetic quick-make/quick-break, over toggle type suitable for use in systems having a short-circuit capacity as indicated on the drawings.

10. Instantaneous, thermal magnetic, long-time delay trip elements shall be provided per each pole.

11. Branch circuit breakers shall be full-size and have a range of 15 amperes through 125 amperes. Plug-in surge arrestor shall be available for single-phase applications.

12. Branch circuit breakers shall be full-size, with a minimum rating of 20 amperes.

13. Ground fault breakers for personnel (5 ma) and equipment (30 ma) protection shall be available through 60 amperes.

14. All terminals shall be listed for use with copper or aluminum conductors. Terminals shall be of the box lug design. The terminals shall meet UL 486B requirements and shall be suitable for use with either 60 degree or 75 degree Celsius wire, unless otherwise specified.

15. Where indicated on drawings, supply arc fault circuit interrupters (AFCI) or arc fault circuit interrupters with ground fault circuit interruption (AFCI w/GFCI). The breaker shall provide parallel arc detection and protection in addition to overload and short-circuit protection.

16. Main Circuit Breakers greater than 125 amperes shall be a molded case design. Main

breakers utilizing 4-pole bundled mains are not permitted. Single-phase main breakers 200 amperes and less shall have a side-to-side toggle mechanism allowing for top or bottom mounting.

G. ENCLOSURES

1. Enclosures shall be mounted, either surface or flush, and have the appropriate NEMA listing (1, 3R, or 4X) as indicated on the drawings.

2. Boxes shall be made from cold rolled code gauge sheet steel having multiple knockouts, except where noted. Rain tight boxes shall use galvanized steel or an approved coating system which meets or exceeds NEMA standards for outdoor type 3R enclosures. Boxes shall be of sufficient size to provide at least a minimum code gutter space on all sides.

3. The cover shall have an easy adjustment feature for flush applications.

4. Covers shall be provided with a lock, and keyed to operate from one key.

5. Boxes shall be factory assembled into a single rigid structure.

H. FINISH

1. Boxes and trims shall be finished with a high scratch resistant aesthetically pleasing finish. The finish paint shall be of a type to which field applied paint will adhere.

3. EXECUTION

3.1. CONDITIONS

A. Panelboards/Load centers shall be installed in locations indicated on the drawings.

B. Provisions shall be made for future conduit/branch circuit installations. In flush mount panels, install one ¾" conduit from the enclosure to an accessible ceiling space location for every four spare circuit breakers or spaces.

C. Maximum circuit breaker height installation shall not exceed +6’7” above finished floor or platform pursuant to the requirements of NEC 404.8(A).

D. The depth of structure shall be adequate to accommodate flush mounted enclosures.

E. Protect panelboards/load centers pursuant to Section 26 05 00, COMMON WORK RESULTS FOR ELECTRICAL until final acceptance by owner.

F. Provide circuit breaker marking labels and directories. Directories shall be typewritten and included in a plastic sleeve. Mount directories on the interior face of the equipment cover. Marking labels and directories shall reflect as-built conditions and final room names.

G. The key to the panelboard/load center shall be left inside the plastic circuit breaker directory sleeve or provided to the owner upon final acceptance.

3.2. COMPLETION

A. Demonstrate operation of equipment to owner prior to acceptance.

END OF SECTION 26 24 16

SECTION 26 27 26
WIRING DEVICES

1.GENERAL

1.1. SUMMARY

A. This section includes: Basic wiring devices

B. Furnish labor, materials, equipment, components, and necessary services to support the electrical work show on the drawings and specified herein in this specification.

1. Principal features of this installation include:

a. Receptacles

b. Switches

c. Dimmers

1.2. RELATED SECTIONS

1. SECTION 26 05 00 COMMON WORK RESULTS FOR ELECTRICAL

2. SECTION 26 05 19 LOW VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES

3. SECTION 26 05 26 GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS

4. SECTION 26 05 33 RACEWAYS AND BOXES FOR ELECTRICAL SYSTEMS

5. SECTION 26 05 53 IDENTIFICATION OF ELECTRICAL SYSTEMS

6. SECTION 26 24 16 PANELBOARDS AND LOADCENTERS

A. Related Sections Under Other Divisions:

1. The General provisions, including supplementary conditions, of this contract apply to this section.

1.3. GUARANTEES

A. Materials and equipment shall be listed by an independent testing laboratory for the class of service intended (Underwriters Laboratories or equivalent).

1.4. REQUIREMENTS

A. Wiring devices and associated components shall be manufactured, tested, and installed in accordance to the latest published requirements of the following codes and standards:

1. National Electrical Code (NEC) with California State and local amendments.

2. Department of Justice ADA Standards for Accessible Design

3. UL 20 – General-Use Snap Switches

4. UL 231 – Power Outlets

5. UL 498 – Attachment Plug and Receptacles

6. UL 514D – Cover Plates for Flush-Mounted Wiring Devices

7. UL 943 – Ground Fault Circuit-Interrupters

8. UL V0 – Flame Rating for Flat Panel Connection Enclosure Trim Ring

9. National Electrical Contractors Association NECA 130 Standard for Installing and Maintaining Wiring Devices

10. NEMA WD1 – General Color Requirements for Wiring Devices

2. PRODUCTS

2.1. MATERIALS

A. Receptacles

1. General

a. 120V volts, 20 ampere minimum rating for commercial projects. Refer to plans for specific ratings of higher ampacity.

b. 240V receptacles, ampacity as indicated per plans, shall be provided with appropriate cord and plug.

2. Single, Duplex, and/or Double Duplex as indicated per the drawings.

3. Full or half switched as shown on the drawings. Half switched double duplex receptacles shall have the top receptacle switched and the bottom receptacle un-switched.

4. Ground Fault Circuit Interrupter (GFCI) – Shall be used for the protection of personnel, in accordance to UL 943 and located as defined in NEC Article 210.8.

5. Isolated Ground shall be provided per the drawings. Receptacles shall feature full size ground contacts with a minimum 3/16” thick minimum nylon isolation insulator.

6. Damp Locations – Receptacles shall have an enclosure for the receptacle that is weatherproof when the receptacle is covered (attachment plug cap not inserted and receptacle covers closed). Receptacles 20 ampere, 120 and 240V non-locking receptacles shall be listed weather-resistant type.

7. Wet locations - Receptacles 20 ampere, 120 and 240V, installed in a wet location shall have an enclosure that is weatherproof whether or not the attachment plug cap is inserted. Receptacles 20 ampere, 120 and 240V, non-locking, shall be listed weather-resistant type. All other receptacles installed in a wet location shall be in accordance to the NEC.

8. Flat Panel (television) Connection Enclosure – 2-gang in-wall enclosure, 18 ga. Cold rolled steel base, white powder coat finish, high impact ABS trim ring with power, surge protector, A/V, communication, HDMI devices as indicated per plans.

a. Manufacturer: Hubbell Wiring System “Net Select” or engineer approved equal.

B. Switches

1. 120V volts, 20 ampere minimum rating. Refer to plans for specific ratings of higher ampacity.

2. Shall be Decora Rocker/Toggle, Pilot, and/or key locking type.

3. Commercial specification grade, self-grounding, 30-degree max. temperature rise, 1HP max rating, steel strap, thermoplastic actuator and body, and side wired.

C. Dimmers

1. Commercial grade as specified on the drawings. Dimmers shall precisely adjust lighting levels, with a “one-touch” ON or OFF at a preset level, touch and hold for bright to dim lighting control.

2. Dimmers shall be compatible for the lamp source served.

3. Dimmers shall be provided with memory during temporary power failures to ensure lighting level retain the last setting prior to power outage.

4. Provide dimmers in the capacity (wattage) needed, corresponding to the luminaires served. Power extenders shall be provided as required to serve additional load.

5. Dimmer “switch” shall be compatible with the Decora aesthetic and standard wallplates.

6. Dimmers shall be Leviton “True Touch” or engineer approved equal.

D. Fan Speed Controllers

1. Commercial grade as specified on the drawings. 1.5-5 ampere, 120V AC, 60Hz, Single Pole rating. Fan speed controllers shall be provided with a load rating adequate to handle fan load(s).

2. Single-pole (control from one location) or three-way (control from two locations) as indicated on the drawings.

3. Fan speed controller shall be compatible with the fan light kit lamping.

4. Fan speed controllers shall be Leviton “Illuma Tech” series or engineer approved equal.

2.2. ACCESSORIES

A. Wall plates - Shall be approx. 1/8” larger than the rough-in box opening and have curved corners. Captive screws shall be utilized. Finish shall be smooth and easy to clean.

1. Standard or ganged together where appropriate or as shown per plans.

2. Material Type:

a. Non-conductive, high-impact nylon.

3. Waterproof faceplate assemblies shall provide a watertight connection between the plate and finished surface.

2.3. FINISHES

A. Devices

1. Emergency Branch Circuit

a. Receptacle bodies shall be red, with the branch circuit designation labeled on the device.

2. Other Receptacles

a. Device finishes shall be Almond, black, brown, gray, ivory, light almond, red, or white.

b. Device finish shall be as specified by the Architect. Verify with architect prior to

procurement.

B. Wall Plates

1. Wall plate finish shall match device color.

2. Nylon wall plates shall be almond/black/brown/gray/ivory/light almond/office white/white/blue/orange/red.

a. Device finish shall be as specified by the Architect. Verify with architect prior to procurement.

3. EXECUTION

3.1. PREPARATION

A. Prior to installation, outlet boxes shall be free of debris.

B. Extension rings shall be sued to bring outlet boxes flush with the finished surface as required.

3.2. INSTALLATION

A. Wiring devices shall be installed per the NECA “Standard for Installing and Maintaining Wiring Devices”.

B. Outlet boxes shall be installed flush in building construction unless specifically identified as surface mounted per the plans.

C. Switches shall be installed with the “OFF” position orientated down.

D. When ganging dimmers together, consult manufacturer requirements and allow for proper derating.

E. Junction boxes less a wiring device (i.e. provision made for future) shall have a blank wall plate installed. In finished areas, blank plates shall match material and finish type of adjacent receptacles and switches.

F. Install cast iron plates on surface mounted outlet boxes and junction boxes in unfinished areas.

G. Wiring devices shall be installed at as defined per the drawings and in compliance with ADA standards.

H. Coordinate device mounting heights prior to rough in. In no instance shall a device be roughed in mid-span between finish types. For example, if wainscot is installed along the walls, switches shall be installed completely in or completely above wainscot material.

I. Switches shall be installed on the “strike” side of door frames unless specifically noted otherwise on the drawing due to architectural conflicts (i.e. full height windows). Verify door swings with architectural plans prior to rough in.

J. A bonding jumper shall be installed between the receptacle ground terminal and outlet box, in addition connected to the equipment grounding conductor. The bonding jumper shall be sized per NEC requirements.

K. Feed-thru wiring is not acceptable.

L. Receptacles shall be tested to ensure proper polarity. If polarity is reversed, corrections shall be made at no cost to the building owner or appropriate party.

3.3. FINISHING

A. Adjust wall plates to be flush and level with surface. Devices and plates shall be installed square and plumb with building lines.

B. Clean exposed surfaces and remove construction debris.

END OF SECTION 26 27 26

SECTION 26 28 16
ENCLOSED SWITCHES AND CIRCUIT BREAKERS

1.GENERAL

1.1 SUMMARY

A. This section includes: Enclosed switches and circuit breakers

B. Furnish labor, materials, equipment, components, and necessary services to support the electrical work show on the drawings and specified herein in this specification.

1. Principal features of this installation include:

a. Molded case circuit breakers

b. General duty disconnect switches

c. Heavy duty disconnect switches

1.2 RELATED SECTIONS

1. SECTION 26 05 00 COMMON WORK RESULTS FOR ELECTRICAL

2. SECTION 26 05 53 IDENTIFICATION OF ELECTRICAL SYSTEMS

3. SECTION 26 24 16 PANELBOARDS AND LOAD CENTERS

A. Related Sections Under Other Divisions:

1. The General provisions, including supplementary conditions, of this contract apply to this section.

1.3 REQUIREMENTS

A. Materials and installation shall be in accordance with the latest published requirements of the following codes and standards:

1. Materials and equipment shall be listed by an independent testing laboratory for the class of service intended (Underwriters Laboratories or equivalent).

2. National Electrical Code (NEC) with California State and local amendments.

3. ASTM E 329 - Standard Specification for Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction.

4. Federal Specification FS W-C-375 - Circuit Breakers, Molded Case, Branch Circuit and Service.

5. NEMA KS 1 - Enclosed Switches

6. NEMA 250 - Enclosures for Electrical Equipment

7. UL 98 - Enclosed and Dead Front Switches

8. UL 489 - Standard for Molded-Case Circuit Breakers and Circuit-Breaker Enclosures.

9. UL 508 - Standard for Industrial Control Equipment.

10. UL 1053 - Standard for Ground Fault Sensing and Relaying Equipment.

2. PRODUCTS

2.1 MANUFACTURERS

A. Square D, Eaton-Cutler Hammer, Siemens or engineer approved equal.

2.2 DISCONNECT SWITCHES

A. GENERAL

1. Switches identified for use as service equipment shall be labeled for this application pursuant to NEC requirements.

2. Disconnect switches shall be fused or non-fused as indicated on the drawings.

3. NEMA type 1 enclosures shall be utilized indoors and NEMA Type 3R utilized outdoor unless otherwise noted on the drawings.

4. Lugs shall be listed for a minimum of 75 degrees Celsius.

5. Verify fuse sizes with the manufacturer of the equipment served.

B. ENCLOSURES

1. Enclosure shall be finished with gray baked enamel paint which is electrodeposited on cleaned, phosphate pre-treated steel for NEMA Type 1 and 3R. For NEMA Type 4 and 4X the enclosure shall have a brush finish on type 304 stainless steel finish.

2. Enclosures shall have ON and OFF markings stamped into the cover.

3. Operating handles shall be provided with a dual colored, red/black position indication.

4. Switches shall have provisions to accept up to three 3/8 in hasp padlocks to lock the operating handle in the OFF position.

5. Tangential knockouts shall be provided to facilitate ease of conduit entry (NEMA Types 1 and 3R) for switches rated 30-200A.

6. NEMA Type 4 and 4X shall have a stainless steel enclosure and shall contain no knockouts. Supply watertight hubs as required for conduit entry/exit.

7. NEMA Type 4X polyester enclosures shall be provided with polyester conduit hubs for field installation.

8. Enclosures for Type 3R switches through 200 ampere shall have provisions for interchangeable bolt-on hubs in the top endwall.

9. Type 4 and 4X stainless steel enclosures shall be dual rated as Type 3R to facilitate their use in outdoor applications.

10. Cover viewing window shall be incorporated on 30-200A NEMA 4 and 4X, stainless steel, two or three pole switches.

C. SWITCH RATINGS

1. Switches shall be horsepower rated for the AC voltage as indicated on the plans.

2. The UL Listed short circuit current rating of the switches shall be:

   a. 10,000 rms symmetrical amperes when used with or protected by Class H or K fuses (30-600 ampere).

   b. 200,000 rms symmetrical amperes when used with or protected by Class R or Class J fuses (30-600 ampere switches employing appropriate fuse rejection schemes).

   c. 200,000 rms symmetrical amperes when used with or protected by Class L fuses (800-1200 ampere).

D. GENERAL DUTY DISCONNECT SWITCHES

1. Applicable to disconnect switches 240 volt and below.

E. HEAVY DUTY DISCONNECT SWITCHES

1. Applicable to disconnect switches 277/480 volt.

F. DISCONNECT SWITCH INTERIOR

1. Switches shall have switch blades which are visible when the switch is OFF and the cover is open.

2. Lugs shall be front removable

3. Switches required for Type 4and 4X stainless steel applications shall have all copper current carrying parts.

4. All current carrying parts shall be plated to resist corrosion.

5. Switches shall have removable arc suppressors to facilitate easy access to line side lugs.

6. Switches shall have provisions for a field installable electrical interlock.

G. DISCONNECT SWITCH MECHANISM

1. Switch operating mechanism shall be quick-make, quick-break such that, during normal operation of the switch, the operation of the contacts shall not be capable of being restrained by the operating handle after the closing or opening action of the contacts has started.

2. The operating handle shall be an integral part of the box, not the cover.

3. Provisions for padlocking the switch in the OFF position with at least three padlocks shall be provided.

4. The handle position shall travel at least 90° between OFF and ON positions to clearly distinguish and indicate handle position.

5. Switches shall have a dual cover interlock mechanism to prevent unintentional opening of the switch cover when the switch is ON and prevent turning the switch ON when the cover is open. The cover interlock mechanism shall have an externally operated override

but the override shall not permanently disable the interlock mechanism. The tool used to override the cover interlock mechanism shall not be required to enter the enclosure in order to override the interlock.

3. EXECUTION

3.1 INSTALLATION

A. Preparation and installation shall be in accordance with reviewed product data, final shop drawings, manufacturer's written recommendations, and as indicated on the Drawings.

B. Disconnect switches shall be installed where identified on the drawings. Switches shall be secured to building structure or supported via "C" channel strut as required. Field coordinate and adhere to manufacturer requirements.

SECTION 28 13 53
INTRUSION DETECTION

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. Intrusion detection system including sensors, signal equipment, controls, and alarm displays NOT IN SCOPE, however, items below should be coordinated with the Owner's vendor - Deep Blue Integration.

1. Schedule disconnection of existing alarms with construction.
2. Schedule connection/ reconnection of new alarms prior to project completion.

2.PRODUCTS (Not Applicable)

3.EXECUTION

3.1. PROTECTION

A. Coordinate with work of other sections. Comply with applicable regulations and building code requirements.

B. Restore damaged finishes. Clean and protect work from damage.

END OF SECTION

SECTION 28 31 00
FIRE DETECTION AND ALARM

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. Fire detection and alarm systems per Fire Protection and Fire Alarm drawings.

B. Fire alarm monitoring to be performed by the Owner’s vendor - Deep Blue Integration.

1. Schedule disconnection of existing alarms with construction.
2. Schedule connection/ reconnection of new alarms prior to project completion.

1.3. SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

B. Operation and Maintenance Data: Submit manufacturer's operation and maintenance data, including operating instructions, list of spare parts and maintenance schedule.

1.4. QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

1.5. WARRANTY

A. Manufacturer's Warranty: Provide manufacturer's standard limited warranty against defects in materials and workmanship.

B. Installer’s Warranty: 5 year

2.PRODUCTS

2.1. MATERIALS (*provided for reference, please refer to Fire Protection plans*)

A. Intelligent Addressable FACP with Communicator:
1. Manufacturer: Notifier (No Substitutions)
2. Part #/ Model #: NFS-320
3. Mounting: See FA Drawings.

B. Universal Alarm Communicator:
1. Manufacturer: DMP
2. Part #/ Model #: CELLCOMF-LTE-V
3. Mounting: See FA Drawings.

C. Document Storage Box:
1. Manufacturer: Spaceage
2. Type: 12 in. x 13 in. x 2.25 in. w/ 4GB Flash Drive
3. Part #/ Model #: SSU00685/ FAD
4. Mounting: See FA Drawings.

D. Low Profile Intelligent Photo Sensor:
   1. Manufacturer: Notifier (No Substitutions)
   2. Type/ Color: White
   3. Part #/ Model #: FSP-951
   4. Mounting: See FA Drawings.

E. Tamper Switch:
   1. Manufacturer: Potter
   2. Part #/ Model #: OSYSU / PCVS
   3. Mounting: See FA Drawings.

F. Waterflow Switch:
   1. Manufacturer: Potter
   2. Part#/ Model #: VSR
   3. Mounting: See FA Drawings.

G. Monitor Module w/ Flashscan, Addressable:
   1. Manufacturer: Notifier
   2. Part#/ Model #: FMM-1
   3. Mounting: See FA Drawings.

H. L-Series Strobe:
   1. Manufacturer: System Sensor
   2. Type/ Color: White
   3. Part#/ Model #: SWL
   4. Mounting: Wall, see FA Drawings.

I. L-Series 2-Wire, Horn Strobe:
   1. Manufacturer: System Sensor
   2. Type/ Color: White
   3. Part#/ Model #: P2WL
   4. Mounting: Wall, see FA Drawings.

J. EOL 4.7K:
   1. Manufacturer: Notifier/ Color: White
   2. Part#/ Model #: EOL-4.7K
   3. Mounting: See FA Drawings.

K. Genesis Series Cable:
   1. Manufacturer: Honeywell
   2. Part#/ Model #: 4511 / 4513
   3. Mounting: See FA Drawings.

3.EXECUTION

3.1. INSTALLATION

A. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials in proper relation with adjacent construction and with uniform appearance for exposed work. Coordinate with work of other sections. Comply with applicable regulations and building code requirements.

B. Instruct Owner's personnel in proper operation of systems.

3.2. PROTECTION

A. Restore damaged finishes. Clean and protect work from damage.

END OF SECTION

SECTION 32 80 00
IRRIGATION

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. Protect existing irrigation systems in areas affected by work and re-use for after-condition landscaping. If necessary, replace damaged irrigation so that compatible with existing irrigation system.

1.3. SUBMITTALS - *if needed for replacement irrigation*

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

B. Shop Drawings: Submit shop drawings indicating material characteristics, details of construction, connections, and relationship with adjacent construction.

C. Operation and Maintenance Data: Submit manufacturers operation and maintenance data, including operating instructions, list of spare parts and maintenance schedule.

1.4. QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers and use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

B. Testing: Hydrostatic test at 100 psi.

1.5. WARRANTY

A. Manufacturer's Warranty: Provide manufacturer's standard limited warranty against defects in materials and workmanship.

B. Installer’s Warranty: 1 year

2.PRODUCTS

2.1. MATERIALS

A. Irrigation System:
1. Application: Irrigation for site plantings.
2. Piping: Lateral Lines Schedule 200 PVC
3. Drip Irrigation: Netafim, Hardie E02’s products
4. Sprinkler Heads: Toro or Hunter, suitable for service

3.EXECUTION

3.1. INSTALLATION

A. Protect existing landscaping from damage.

B. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials and systems in proper relation with adjacent construction. Coordinate with work of other sections.

C. Restore damaged components and test for proper operation. Clean out system and protect work from damage.

D. Instruct Owner's personnel in proper operation and maintenance procedures.

END OF SECTION

SECTION 32 90 00
PLANTING

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. Provide all labor, materials, equipment and services to complete the finish grading, planting, maintenance of planting and related items, as indicated on the drawings and specified herein, providing landscaping with plants in vigorous growth condition, ready for the Owner's use.

B. Protect existing plantings in areas affected by work. If necessary, replace damaged plantings so that compatible with existing plant materials.

1.3. SUBMITTALS

A. Furnish quantity and plant material selections for approval.

1.4. PROTECTION

A. Contractor shall call UTILITY ALERT, (1-800-642-2444 or 811), a minimum of 48 hours prior to any excavation.

1.5. WARRANTY/ GUARANTEE

A. All specimen trees in 24 inch box and larger shall be guaranteed for one (1) full year; all 15 gallon plants for one (1) year; all 1 gallon and 5 gallon plants for six (6) months; lawns for three (3) months; 4”/5½“ pots and flatted ground cover for 60 days, from date of final acceptance.

B. The Contractor shall replace all dead plants and all plants not in a vigorous, thriving condition as determined by the Architect during and at the end of the guarantee period. Replacement plants shall be of the same quality as the original specified plants.

2.PRODUCTS

2.1. MATERIALS

A. Planting:
1. Application: Protect in place as applicable, replace existing plant materials in kind as necessary if impacted by work.
2. Plant Materials: Ground cover and plants.
3. Topsoil: Site stockpile.
4. Soil Amendments: Based on soil testing.

3.EXECUTION

3.1. INSTALLATION

A. Install landscape work in proper relation with adjacent construction and with uniform appearance. Coordinate with work of other sections.

B. Provide maintenance and watering until turnover to Owners for maintenance and watering. Replace damaged materials and dead or unhealthy plants prior to turnover to Owner.

END OF SECTION

ALTERNATE 5 - CEILING SPECIFICATIONS

PAGE LEFT BLANK INTENTIONALLY

REISS DESIGN STUDIO, PC

Central California Office
3055 Duncan Lane, Suite A
San Luis Obispo, California 93401
(805) 706-0645
www.reissdesignstudio.com

Northern Idaho Office
414 Church Street, Suite 305
Sandpoint, Idaho 83864
(208) 826-0645
www.reissdesignstudio.com

ARROYO GRANDE LIBRARY REMODEL #320196

800 W Branch Street, Arroyo Grande, CA 93420

CONSTRUCTION SPECIFICATIONS - Date: April 04, 2024

Revised: July 25, 2025

B1

PROJECT OWNER:
The County of San Luis Obispo, Public Works Department
976 Osos Street, Room 207
San Luis Obispo, CA 93408

PROJECT NAME:
Arroyo Grande Library Remodel #320196

PROJECT ARCHITECT:

Reiss Design Studio, PC
Shana Reiss, President, Lic. C-32912
3055 Duncan Road, Suite A
San Luis Obispo, CA 93401
(805) 706-0645
shana@reissdesignstudio.com

CONTRIBUTORS:

Civil Engineer of Record
Walsh Engineering
Matt Walsh, PE QSD/P, Lic. C79026
1108 Garden Street, Suite 202-204
San Luis Obispo, CA 93401
Phone: (805) 319-4948
Email: matt@walshengineering.net

Fire Protection Engineer of Record
Ptrutner Fire Protection Engineering, Inc.
Paul Trutner, PE CA No. 1934
2470 Stearns Street Suite 280
Simi Valley, CA 93063
Phone: (805) 297-3100
Email: paul@ptrutnerfpe.com

B1 Bid Set Update 07/25/2025

Structural Engineer of Record
Ashley & Vance Engineering, Inc.
Charles Ashley, PE S5258
1229 Carmel Street
San Luis Obispo, CA 93401
Phone: (805) 545-0010
Email: charles@ashleyvance.com

Mechanical & Plumbing Engineer of Record
BMA Mechanical +
Brandon Rodgers, Lic. M33682
689 Tank Farm, Suite 240
San Luis Obispo, CA 93401
Phone: (805) 544-4269
Email: brandonr@bmaslo.com

Electrical Engineer of Record
Gray Electrical Consulting + Engineering, Corp.
Heather Gray, Lic. E18927
2529 Professional Parkway, Suite A - PO Box #368
Santa Maria, CA 93455
Phone: (805) 361-0525
Email: heather@gececorp.com

B1 Bid Set Update 07/25/2025

CONSTRUCTION SPECIFICATIONS
TABLE OF CONTENTS

USER DOCUMENTS
- 00 00 20 Project Information
- 00 03 00 Table of Contents

DIVISION 00 - PROCUREMENT & CONTRACTING REQUIREMENTS
Provided by Owner

DIVISION 01 - GENERAL REQUIREMENTS
Provided by Owner

DIVISION 02 - EXISTING CONDITIONS
- 02 41 19 Selective Demolition

DIVISION 03 - CONCRETE
- 03 30 00 Cast-In-Place Concrete

DIVISION 04 - MASONRY
- 04 20 00 Unit Masonry

DIVISION 05 - METALS
- 05 50 00 Metal Fabrications

DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES
- 06 10 00 Rough Carpentry
- 06 16 00 Sheathing
- 06 40 23 Interior Architectural Woodwork

DIVISION 07 - THERMAL AND MOISTURE PROTECTION
- 07 18 00 Traffic Bearing Waterproof Surfacing
- 07 21 00 Thermal Insulation
- 07 50 00 Membrane Roofing
- 07 62 00 Sheet Metal Flashing and Trim

DIVISION 08 - OPENINGS
- 08 11 13 Hollow Metal Doors and Frames
- 08 14 00 Flush Wood Doors
- 08 36 00 Sectional Overhead Doors
- 08 40 00 Entrances and Storefronts
- 08 51 13 Aluminum Windows
- 08 60 00 Skylights
- 08 71 00 Door Hardware
- 08 80 00 Glazing
- 08 92 00 Louvers and Vents

DIVISION 09 - FINISHES
- 09 21 13 Portland Cement Plastering
- 09 29 00 Gypsum Board Assemb
- 09 30 00 Tiling
- 09 51 00 Acoustical Ceilings
- 09 65 00 Resilient Flooring
- 09 65 13 Resilient Base and Accessories
- 09 68 13 Tile Carpeting
- 09 91 00 Painting
- 09 93 00 Staining and Transparent Finishing

B1

B1

DIVISION 10 - SPECIALTIES
10 14 00 Signage
10 21 13 Toilet Compartments
10 28 13 Toilet Accessories
10 44 00 Fire Protection Specialties

DIVISION 21 - FIRE SUPPRESSION
21 03 00 Fire Suppression

DIVISION 22 - PLUMBING
22 00 00 Plumbing

DIVISION 23 - HEATING, VENTILATING, AND AIR CONDITIONING (HVAC)
23 00 00 HVAC
23 00 13 General Mechanical Requirements
23 01 30 HVAC System Cleaning Specifications

DIVISION 26 - ELECTRICAL
26 05 00 Common Work Results for Electrical
26 05 01 Selective Electrical Demolition
26 05 19 Low-Voltage Electrical Power Conductors and Cables
26 05 26 Grounding and Bonding of Electrical Systems
26 05 33 Raceways and Boxes for Electrical Systems
26 05 53 Identification of Electrical Systems
26 09 43 Network Lighting Controls
26 24 16 Panelboards and Loadcenters
26 27 26 Wiring Devices
26 28 16 Enclosed Switches and Circuit Breakers

DIVISION 28 - ELECTRONIC SAFETY AND SECURITY
28 13 53 Intrusion Detection
28 31 00 Fire Detection & Alarm

DIVISION 32 - EXTERIOR IMPROVEMENTS
32 80 00 Irrigation
32 90 00 Planting

END OF TABLE OF CONTENTS

B1

~~SECTION 08 51 13~~
~~ALUMINUM WINDOWS~~

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. Provide aluminum storefront windows. **If possible to reuse existing windows, notify Architect.**

1.3. SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

B. Recycled Content: Provide documentation that aluminum has a minimum of 50% mixed pre- and post-consumer recycled content with a sample document illustrating project specific information that will be provided after product shipment.

C. Shop Drawings: Submit shop drawings indicating material characteristics, plans, elevations, sections, details of construction, connections, and relationship with adjacent construction. Verify openings by field measurements before fabrication and indicate measurements on Shop Drawings.

D. Standard color options for Architect selection.

OMIT

B1

1.4. QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

B. In-field testing and reports in accordance with manufacturer’s recommendations.

1.5. WARRANTY

A. Manufacturer's Warranty: Provide manufacturer's standard limited warranty against defects in materials and workmanship.

B. Installer’s Warranty: 5 year

2.PRODUCTS

2.1. MANUFACTURER

A. Product:

1. Manufacturer: Kawneer, or approved equal
2. Aluminum Storefront Window
3. Kawneer Series AA®6400/6500/6600 Windows, or approved equal
4. Match existing frame dimensions and function of windows. If not possible, please indicate.
5. Kawneer Permacoat™ AAMA 2604, Powder Coating (Color TBD - provide standard color options to Architect for selection), or approved equal
6. Provide interior locking capability on operable components

2.2. MATERIALS

A. Aluminum Extrusions: Alloy and temper recommended by aluminum window manufacturer for strength, corrosion resistance, and application of required finish and not less than 0.070" (1.8) wall thickness at any location for the main frame and sash members.

1. Recycled Content: Shall have a minimum of 50% mixed pre- and post-consumer recycled content.

B. Thermal Barrier: The thermal barrier shall be Kawneer, or approved equal consisting of two parallel glass fiber-reinforced nylon strips installed continuously and mechanically bonded to the aluminum.

C. Fasteners: Aluminum, nonmagnetic stainless steel or other materials to be non-corrosive and compatible with aluminum window members, trim, hardware, anchors, and other components.

D. Sealant: For sealants required within fabricated windows, provide window manufacturer's standard, permanently elastic, non-shrinking, and non-migrating type recommended by sealant manufacturer for joint size and movement.

2.3. WINDOW FRAMING SYSTEM

A. Series AA®6400/6500/6600 Windows, or approved equal - Fixed - unless possible to match function of existing window units, notify Architect.

2.4. GLAZING

A. Glass and Glazing Materials: Refer to Division 08 Section Glazing.

B. Glazing System: Glazing method shall be a dry type in accordance with manufacturer's standards. Exterior glazing shall be TPE gasket. Interior glazing shall be snap-in type glazing beads with an interior TPE gasket in accordance with AAMA 702 or ASTM C864.

OMIT

B1

2.5. HARDWARE

A. General: None required

2.6. ACCESSORIES

A. Spacers, Setting Blocks, Gaskets, and Bond Breakers: Manufacturer's standard permanent, non-migrating types in hardness recommended by manufacturer, compatible with sealants, and suitable for system performance requirements.

B. Framing system gaskets, sealants, and joint fillers as recommended by manufacturer for joint type.

C. Sealants and joint fillers for joints at perimeter of window system.

D. Perimeter Anchors: When steel anchors are used, provide insulation between steel material and aluminum material to prevent galvanic action.

2.7. FABRICATION

A. Framing Members, General: Fabricate components that, when assembled, have the following characteristics:

1. Profiles that are sharp, straight, and free of defects or deformations.
2. Accurately fit joints; make joints flush, hairline and weatherproof.
3. Means to drain water passing joints, condensation within framing members, and moisture migrating within the system to exterior.
4. Physical and thermal isolation of glazing from framing members.

5. Accommodations for thermal and mechanical movements of glazing and framing to maintain required glazing edge clearances.
6. Provisions for field replacement of glazing.
7. Fasteners, anchors, and connection devices that are concealed from view to greatest extent possible.

B. Window Framing: Fabricate components for assembly using manufacture's standard installation instructions.

C. After fabrication, clearly mark components to identify their locations in Project according to Shop Drawings.

D. Thermally Improved Construction: Fabricate aluminum window framing with an integral, concealed, low-conductance thermal barrier; located between exterior materials and window members exposed on interior side; in a manner that eliminates direct metal-to-metal contact. Thermal barriers shall be designed in accordance with AAMA TIR A8.

1. Thermal Barrier: The thermal barrier shall be Kawneer, or approved equal consisting of two parallel glass fiber-reinforced nylon strips installed continuously and mechanically bonded to the aluminum.

3.EXECUTION

3.1. EXAMINATION

A. Examine openings, substrates, structural support, anchorage, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of work. Verify rough opening dimensions, levelness of sill plate and operational clearances. Examine wall flashings, vapor retarders, water and weather barriers, and other built-in components to ensure a coordinated, weather tight window installation.

1. Wood Frame Walls: Dry, clean, sound, well nailed, free of voids, and without offsets at joints. Ensure that nail heads are driven flush with surfaces in opening and within 3 inches (76.2 mm) of opening.
2. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2. INSTALLATION

A. Comply with Drawings, Shop Drawings, and manufacturer's written instructions for installing windows, hardware, accessories, and other components.

B. Install aluminum framed window system level, plumb, square, true to line, without distortion or impeding thermal movement, anchored securely in place to structural support, and in proper relation to wall flashing and other adjacent construction.

C. Set sill members in bed of sealant or with gaskets, as indicated, for weather tight construction.

D. Install aluminum framed window system and components to drain condensation, water penetrating joints, and moisture migrating within system to the exterior.

E. Separate aluminum from dissimilar materials to prevent corrosion or electrolytic action at points of contact.

3.3. FIELD QUALITY CONTROL

A. Testing Agency: Engage a qualified testing agency to perform tests and inspections and prepare test reports.

1. Testing and inspecting agency will interpret tests and state in each report whether tested work complies with or deviates from requirements.

B. Testing Services: Testing and inspecting of installed windows shall take place as follows:

OWT B1

1. Testing Methodology: Testing Standard shall be per AAMA 502 including reference to ASTM E 783 for Air Infiltration Test and ASTM E 1105 for Water Penetration Test.
   a. Air Infiltration Test: Conduct test in accordance with ASTM E 783 at a minimum uniform static test pressure of 1.57 psf (75 Pa) for CW or 6.24 psf (300 Pa) for AW. The maximum allowable rates of air leakage for field testing shall not exceed 1.5 times the project specifications.
   b. Water Infiltration Test: Water penetration resistance tests shall be conducted in accordance with ASTM E 1105 at a static test pressure equal to 2/3 the specified water test pressure.
2. Testing Extent: Architect shall select window units to be tested as soon as a representative portion of the project has been installed, glazed, perimeter caulked and cured. Conduct tests for air infiltration and water penetration with manufacturer's representative present.
3. Test Reports: Shall be prepared according to AAMA 502.

3.4. CLEANING AND PROTECTION

A. Clean aluminum surfaces immediately after installing windows. Avoid damaging protective coatings and finishes. Remove excess sealants, glazing materials, dirt, and other substances.

B. Clean glass immediately after installing windows. Comply with manufacturer's written recommendations for final cleaning and maintenance. Remove nonpermanent labels, and clean surfaces.

C. Remove and replace glass that has been broken, chipped, cracked, abraded, or damaged during construction period.

D. Protect window surfaces from contact with contaminating substances resulting from construction operations. In addition, monitor window surfaces adjacent to and below exterior concrete and masonry surfaces during construction for presence of dirt, scum, alkaline deposits, stains, or other contaminants. If contaminating substances do contact window surfaces, remove contaminants immediately according to manufacturer's written recommendations.

END OF SECTION

OMIT

B1

SECTION 08 60 00
SKYLIGHTS

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.

B. Also refer to section 08 80 00 Glazing.

1.2. SUBMITTALS

A. Product Data: Include construction details, material descriptions, dimensions and profiles of components, and finishes for metal-framed skylights.

B. Shop Drawings: For metal-framed skylights. Include plans, elevations, sections, details, and attachments to other work as required.

C. Samples for Initial Selection: Manufacturer’s color charts consisting of sections of units showing the full range of colors available for factory-finished aluminum.

D. Samples for Verification: Provide color sample of selected finish on 2"x3" aluminum sheet.

E. Installer Certificates: If required, signed by manufacturer certifying that installers comply with requirements.

F. Product Test Reports: From a qualified testing agency indicating skylights comply with requirements, based on comprehensive testing of current products.

1.3. QUALITY ASSURANCE

A. Installer Qualifications: An experienced installer who has specialized in installing metal-framed skylights similar to those indicated for this Project and who is acceptable to manufacturer.

B. Professional Engineer Qualifications: A professional engineer who is experienced in providing engineering services of the kind indicated. Engineering services are defined as those performed for installations of skylights that are similar to those indicated for this Project in material, design, and extent.

C. Testing Agency Qualifications: An independent testing agency with the experience and capability to conduct the testing indicated, as documented according to ASTM E 548.

1.4. PROJECT CONDITIONS

A. Field Measurements: Where metal-framed skylights are 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. Established Dimensions: Where field measurements cannot be made without delaying the Work, establish dimensions and proceed with fabricating skylights without field measurements. Coordinate construction to ensure that actual dimensions correspond to established dimensions.

1.5. WARRANTY

A. Warranty: Written warranty, executed by manufacturer agreeing to repair or replace components of metal-framed skylights that fail in materials or workmanship within specified warranty period. Failures include, but are not limited to, the following:

1. Structural failures.
2. Failure of systems to meet performance requirements.
3. Deterioration of metals, metal finishes, and other materials beyond normal weathering.

4. Water leakage; defined as uncontrolled water appearing on normally exposed interior surfaces of skylights from sources other than condensation, resulting from defects in skylight materials or workmanship. (Water controlled by flashing and gutters and drained back to the exterior and that cannot damage adjacent materials or finishes is not water leakage). Water leakage resulting from improper installations not part of this warranty.

B. System Warranty Period: 5 years from date of shipment from the manufacturer.

C. Finish Warranty: Provide written warranty signed by manufacturer agreeing to repair or replace work with finish defects. “Defects” is defined as peeling, chipping, chalking, fading, abnormal aging or deterioration, and failure to perform as required.

D. Warranty Period for 2604 Powder Finish or approved equal: 10 years from date of shipment from the manufacturer.

B1

E. ~~Warranty Period for 2605 Powder Finish or approved equal: 20 years from the date of shipment from the manufacturer.~~

F. Installer’s Warranty: 5 years

2.PRODUCTS

2.1. MANUFACTURERS

A. Manufacturers: Subject to compliance with requirements, provide Pinnacle 350/600 system by Wasco Part of the VELUX Group, Wells, ME (800-388-0293), or approved equal

2.2 FRAMING MATERIALS

A. Framing Members: Extruded aluminum alloy 6063-T5 or T6, ASTM B 221 with minimum effective thickness of 0.109 inches.
B. Exterior Pressure Caps: Extruded aluminum alloy 6063-T5 or T6, ASTM B 221 with minimum effective thickness of 0.090 inches.
C. Concealed Flashing: Manufacturer’s standard corrosion-resistant, non-staining, non-bleeding flashing; compatible with adjacent materials.
D. Exposed Flashing and Closures: Aluminum sheet alloy and temper of 1100-H14, thickness as require for proper performance.
    1. Minimum Thickness: 0.032 inch Apron Flashing.
    2. Minimum Thickness: 0.062 inch Closures.
E. Fasteners and Accessories: Manufacturer’s standard corrosion-resistant, non-staining, non-bleeding fasteners and accessories; compatible with adjacent materials.
    1. Aluminum Retaining Cap Fasteners and Framing Members Fasteners: ASTM A 193/A 193M, Series 300 stainless-steel screws; type as recommended by manufacturer.
    2. Connections to Supporting Structure: Series 300 Stainless Steel or ASTM A 307, hot dipped galvanized steel fasteners by installer.
F. Framing-System Sealants: Single-component, non-sag, high performance, non-priming, gun-grade elastomeric polyurethane sealant furnished by skylight manufacturer.
    1. Sealant complies with ASTM C920, Type S, Grade NS, Class 25, Use T, NT, M, A, G, and O.
    2. Sealant conforms to USDA approval standards.
G. Bituminous Paint: Cold-applied asphalt mastic paint complying with SSPC-Paint 12, except containing no asbestos, and formulated for 30-mil thickness per coat.

2.3 GLAZING MATERIALS

A. Sloped Glass: Glass must meet the requirements of the AAMA Glass Design for Sloped Glazing for the project.
B. Glazing Gaskets: Manufacturer’s proprietary pressure-glazing gaskets of elastomer type and hardness selected by the skylight manufacturer to comply with requirements. Glazing gaskets to be extruded thermoplastic elastomer by the skylight manufacturer.

C. Spacers, Edge Blocks, and Setting Blocks: Manufacturer's standard permanent non-migrating type of elastomer type and hardness selected to comply with requirements. Spacers, Edge Blocks, and Setting Blocks to be extruded thermoplastic elastomer by the skylight manufacturer.
D. Glazing Weatherseal Sealant: Neutral-curing silicone sealant recommended by skylight and sealant manufacturers for this use and furnished by skylight manufacturer.
    1. Sealant is capable of withstanding 50 percent movement in both extension and compression (total of 100 percent movement) when tested for adhesion and cohesion under maximum cyclic movement according to ASTM C 719.
    2. Sealant complies with ASTM C 920 for Type S, Grade NS, Class 25, Uses NT, G, A, and, as applicable to substrates including other sealants with which it comes in contact, O.
    3. Color: Black.
E. Flashing Sealant: Single-component, non-sag, high performance, non-priming, gun-grade elastomeric polyurethane sealant furnished by skylight manufacturer.
    1. Sealant complies with ASTM C920, Type S, Grade NS, Class 25, Use T, NT, M, A, G, and O.
    2. Sealant conforms to USDA approval standards.

2.4 FABRICATION

A. Framing Components: As follows:
    1. Factory fit and assemble components, where practical.
    2. Fabricate components that, when assembled, will have accurately fitted joints with ends coped or mitered to produce hairline joints free of burrs and distortion.
    3. Fabricate components to drain water passing joints and to drain condensation and moisture occurring or migrating within skylight system to the exterior.
    4. Fabricate components to accommodate expansion, contraction, and field adjustment, and to provide for minimum clearance and shimming at skylight perimeter.
    5. Fabricate components to ensure that glazing is thermally and physically isolated from framing members.
    6. Form shapes with sharp profiles, straight and free of defects or deformations, before finishing.
    7. Fit and assemble components to greatest extent practicable before finishing.
    8. Reinforce members as required to retain fastener threads.
    9. Attach retainer bars with gasketed stainless steel fasteners spaced at a maximum of 12 inches on center.
    10. Weld components before finishing and in concealed locations to greatest extent practicable to minimize distortion.
    11. Before shipping, shop assemble, mark, and disassemble components that cannot be permanently shop assembled.
B. Provide continuous aluminum frame with weatherproof splice joints and locked and sealed or fully welded corners. Locate weep holes in the frame at each rafter connection to drain condensation.
C. Prepare framing to receive anchor and connection devices and fasteners.
D. Field Glazing: Locate and size extruded elastomeric setting blocks and spacers in accordance with the glazing manufacturer's recommendations. At no point shall the glazing come in contact with the skylight frame or fasteners.

2.5 ALUMINUM FINISHES

A. General: Comply with NAAMM "Metal Finishes Manual" recommendations for application and designations of finishes.

B. Finish designations prefixed by AA conform to the system for designations of aluminum finishes established by the Aluminum Association.

B1

1. ~~2605 Powder: Powder Coat High-Performance Architectural Coating complying with AAMA 2605. Color: TBD, Provide Standard Colors for Architect Review and Selection~~
2. 2604 Powder: Powder Coat High-Performance Architectural Coating: complying with AAMA 2604. Color: TBD, Provide Standard Colors for Architect Review and Selection

3.EXECUTION

3.1 EXAMINATION

A. Examine substrates and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting skylight performance.
    1. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Metal Protection: As follows:
    1. Where aluminum will contact dissimilar metals, protect against galvanic action by painting contact surfaces with primer or by applying sealant or tape recommended by manufacturer for this purpose.
    2. Where aluminum will contact concrete or masonry, protect against corrosion by painting contact surfaces with bituminous paint.
    3. Where aluminum will contact pressure-treated wood, separate dissimilar materials by methods recommended by manufacturer.

3.3 INSTALLATION

A. General: Comply with manufacturer's written instructions for protecting, handling, and installing skylight components.
    1. Fit frame joints to produce hairline joints free of burrs and distortion.
    2. Rigidly secure non-movement joints.
    3. Accommodate thermal and mechanical movements.
    4. Install framing components to drain water passing joints and to drain condensation and moisture occurring or migrating within skylight system to the exterior.
    5. Coordinate installation of flashings at skylight perimeters to maintain continuity of water barriers.
    6. Set continuous curbs and flashings in a full sealant bed, unless otherwise indicated.
B. Erection Tolerances: Install skylight components true in plane, accurately aligned, and without warp or rack. Adjust framing to comply with the following tolerances:
    1. Variation from Plane: Limit variation from plane or location shown to 1/8 inch in 10 feet; 1/4 inch over total length.
    2. Alignment: Where surfaces abut in line and at corners and where surfaces are separated by less than 3 inches, limit offset from true alignment to less than 1/32 inch; otherwise, limit offset from true alignment to 1/8 inch.
C. Field Glazing: Locate and size extruded elastomeric setting blocks and spacers in accordance with the glazing manufacturer's recommendations. At no point shall the glazing come in contact with the skylight frame or fasteners
D. Install secondary-sealant weatherseal according to sealant manufacturer's written instructions to provide weatherproof joints. Install joint fillers behind sealant as recommended by sealant manufacturer.

3.4 CLEANING

A. Clean skylights inside and outside, immediately after installation and after sealants have cured, according to manufacturer's written recommendations.
    1. Remove temporary protective coverings and strippable coatings from pre-finished metal surfaces. Remove labels and markings from all components.
B. Remove excess sealant according to sealant manufacturer's written recommendations.

END OF SECTION

SECTION 09 65 00
RESILIENT FLOORING

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. Provide resilient flooring and floor preparation. Refer to Finish Schedule.

1.3. SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

B. Samples: Submit two representative samples of each material specified indicating visual characteristics and finish. Include range samples if variation of finish is anticipated.

C. Extra Stock: Submit extra stock equal to 2% of total used.

1.4. QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

B. Performance: Fire performance meeting requirements of building code and local authorities.

1.5. WARRANTY

A. Manufacturer's Warranty: Provide manufacturer's standard limited warranty against defects in materials and workmanship.

B. Installer’s Warranty: 5 year

2.PRODUCTS

2.1. MATERIALS

A. Vinyl Tile Flooring:

B1

1. Manufacturers: Mannington Commercial or approved equal
2. Commercial grade, inlaid sheet vinyl, 5 year warranty. Prepare substrates according to manufacturer’s written instructions to ensure adhesion of resilient products.
3. Model: No Reservations Xpress
4. Color/ Style: Steadfast, NR108
5. Auxiliary Materials:
    a. Edge strips - See section 09 68 13 Tile Carpeting.
    b. Edge treatment - Micro-bevel, refer to manufacturer instructions
    c. Leveling compound.

3.EXECUTION

3.1. INSTALLATION

A. Comply with manufacturer's instructions and recommendations. Install in proper relation to adjacent work.

B. Prepare surfaces by cleaning, leveling and priming as required. Test adhesive for bond before general installation. Level to 1/8” in 10' tolerance.

C. Tile Flooring: Install tile with tight joints and with one-way pattern. Layout to prevent less than 1/2 tile units.

D. Sheet Flooring: Install sheets with tight joints and pattern in adjoining areas running in the same direction. Layout to minimize seams as approved.

E. Clean, polish, and protect.

END OF SECTION

SECTION 09 68 13
TILE CARPETING

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. Provide carpet tile and floor preparation.

1.3. SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

B. Samples: Submit two representative samples of each material specified indicating visual characteristics and finish. Include range samples if variation of finish is anticipated.

C. Extra Stock: Submit extra stock equal to 2% of total used.

1.4. QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

B. Performance: Fire performance meeting requirements of building code and local authorities.

1.5. WARRANTY

A. Manufacturer's Warranty: Provide manufacturer's standard limited warranty against defects in materials and workmanship.

B. Installer’s Warranty: 1 year

2.PRODUCTS

2.1. MATERIALS

A. Carpet Tile for Integral Entrance Mat:

B1

1. Manufacturers: Tandus Centiva/Tarkett
2. Style: Powerbond 24”x24” Tiles
3. Model: Grid Overlay II
4. Color: Hyland #44029
5. Installation Method: Glue-down.
6. Must meet ADA Requirements, coordinate floor transition
7. Auxiliary Materials:
    a. Edge guards - Schluter Reno-U at Perimeter of Integral Entrance Mat (Ramped Transition from carpet tile to LVT Resilient Flooring. See section 09 65 00 Resilient Flooring to material selection)
        i. Schulter Finish - Brushed Antique Bronze Anodized
    b. Adhesives, cements and fasteners.
    c. Leveling compound.

3.EXECUTION

3.1. INSTALLATION

A. Comply with recommendations of Carpet and Rug Institute "Specifier's Handbook".

B. Prepare surfaces and install materials in accordance with manufacturer's instructions and approved submittals. Clean, patch, and level substrate. Install materials in proper relation with adjacent construction and with uniform appearance. Coordinate with work of other sections.

C. Install edge guards and reducer strips as required; clean and protect.

END OF SECTION

APPENDIX A

CEQA NOTICE OF EXEMPTION, DATED AUGUST 17, 2022

PAGE LEFT BLANK INTENTIONALLY

COUNTY OF SAN LUIS OBISPO
Department of Public Works
John Diodati, *Director*

ENVIRONMENTAL PERMIT SUMMARY FORM

Date: August 17, 2022

To: Tim Padayachee, Project Manager

From: Blaize Uva, Environmental Specialist

Subject: **Environmental Review & Permit Status for the** 2022-2023 Countywide Facilities Maintenance Activities; 320154.03, ED22-125

The environmental review and regulatory permit processes for the above referenced project are complete. The following is a summary of the environmental requirements for the project:

Permit	Status	Attachments
CEQA Review	Notice of Exemption	**X**
NEPA Review	Not applicable; no federal nexus	
Coastal Permit	Not applicable, not in Coastal Zone	
CZMA	Not applicable; no Federal nexus,	
CDFW	Not applicable; no impacts to jurisdiction or trust resources	
USACOE 404	Not applicable; no impacts to jurisdiction	
NMFS ESA	Not applicable; no impacts to trust resources	
USFWS ESA	Not applicable; no impacts to trust resources	
RWQCB 401	Not applicable; no impacts to jurisdiction	

Project Description
The projects entail facility repairs, maintenance, and upgrades at existing County-owned and/or operated buildings throughout San Luis Obispo County. The proposed repair and upgrades will include but are not limited to HVAC maintenance; roof repairs; utility upgrades and installation; seismic upgrades; lighting improvements; interior remodeling; fence installation; and paving.

Measure #	**Special Environmental Conditions**	**Responsibility: Contractor, County or Both**	**Compliance (date, activity, N/A)**
Pre-Construction			
1	*Notification of Project Changes*: Please notify the Environmental Programs Division (EPD) if the project description changes.	Contractor	
2	*Nesting Bird Surveys:* Projects that include vegetation trimming or removal during the nesting bird season (February 1 - September 1), will require a pre-construction nesting bird survey. Contact EPD to schedule the survey(s).	County	
3	*Resource Avoidance:* Construction activities shall be planned to avoid native trees, shrubs, drainages and waterways. Consideration shall be given to pruning and trimming trees where possible, rather than complete removal. If removal is required, please contact the EPD. Operation and parking of vehicles and equipment shall not occur within the dripline of trees that will not otherwise be affected.	Contractor	
During Construction			
4	*Wildlife Encounters*: If wildlife is encountered during work, work in that area will be halted and the wildlife will be allowed to escape the work area. If wildlife is unable to leave the work area, contact the Environmental Programs Division immediately to determine next steps.	Contractor	
5	*Inadvertent Cultural Resource Discovery*: If cultural resources are encountered during work, work shall halt in that area and the Environmental Programs Division shall be contacted immediately to determine next steps.	Contractor	
6	*Onsite Best Management Practices*: Ensure there is no run-off or contamination of surrounding areas when working with paint, pavement, concrete, etc. Contaminated water shall be contained on-site and not allowed to enter freshwater sources.	Contractor	
Post-Construction			
7	*Post-Project Cleanup:* All trash, debris, and construction material shall be removed from the project area.	Contractor	

State of California - Department of Fish and Wildlife

2022 ENVIRONMENTAL DOCUMENT FILING FEE CASH RECEIPT

DFW 753.5a (REV. 01/01/22) Previously DFG 753.5a

RECEIPT NUMBER: 40-08172022-112

STATE CLEARINGHOUSE NUMBER *(If applicable)*

SEE INSTRUCTIONS ON REVERSE. TYPE OR PRINT CLEARLY.

LEAD AGENCY	LEAD AGENCY EMAIL	DATE
COUNTY OF SAN LUIS OBISPO	buva@co.slo.ca.us	08/17/2022

COUNTY/STATE AGENCY OF FILING	DOCUMENT NUMBER
COUNTY OF SAN LUIS OBISPO	

PROJECT TITLE

2022-2023 COUNTY FACILITIES MAINTENANCE ACTIVITIES; 350154.03/ED#22-125

PROJECT APPLICANT NAME	PROJECT APPLICANT EMAIL	PHONE NUMBER
COUNTY OF SAN LUIS OBISPO	pwd@co.slo.ca.us	(805) 781-5252

PROJECT APPLICANT ADDRESS	CITY	STATE	ZIP CODE
976 OSOS ST RM 207	SAN LUIS OBISPO	CA	93408

PROJECT APPLICANT *(Check appropriate box)*

☒ Local Public Agency ☐ School District ☐ Other Special District ☐ State Agency ☐ Private Entity

CHECK APPLICABLE FEES:

☐ Environmental Impact Report (EIR)	$3,539.25	$
☐ Mitigated/Negative Declaration (MND)(ND)	$2,548.00	$
☐ Certified Regulatory Program (CRP) document - payment due directly to CDFW	$1,203.25	$

☒ Exempt from fee

- ☒ Notice of Exemption (attach)
- ☐ CDFW No Effect Determination (attach)

☐ Fee previously paid (attach previously issued cash receipt copy)

☐ Water Right Application or Petition Fee (State Water Resources Control Board only)	$850.00	$
☐ County documentary handling fee		$
☐ Other		$

PAYMENT METHOD:

☐ Cash ☐ Credit ☐ Check ☒ Other **TOTAL RECEIVED** $ $0.00

SIGNATURE	AGENCY OF FILING PRINTED NAME AND TITLE
X A Bautista	Annie Bautista, Deputy County Clerk-Recorder

Filed in County Clerk's Office
Elaina Cano
San Luis Obispo - County Clerk-Recorder
40-08172022-112
08/17/2022
FISH
Pages: 2
Fee: $ 0.00

By abautista, Deputy

ORIGINAL - PROJECT APPLICANT COPY - CDFW/ASB COPY - LEAD AGEN (Rev. 01012022)

COUNTY OF SAN LUIS OBISPO
DEPARTMENT OF PUBLIC WORKS

Notice of Exemption

PLN-1123
06/06/2018

Project Title and No.: 2022-2023 County Facilities Maintenance Activities; 350154.03/ ED#22-125

Project Location (Specific address [use APN or description when no situs available]): County-Owned Facilities, Countywide, County of San Luis Obispo	**Project Applicant/Phone No./Email:** San Luis Obispo County Public Works (805) 781-5252 / pwd@co.slo.ca.us **Applicant Address (Street, City, State, Zip):** 976 Osos St., Room 207, San Luis Obispo, CA 93408

Description of Nature, Purpose and Beneficiaries of Project

The projects entail facility repairs, maintenance, and upgrades at existing County-owned and/or operated buildings throughout San Luis Obispo County. The proposed repair and upgrades will include but are not limited to HVAC maintenance; roof repairs; utility upgrades and installation; seismic upgrades; lighting improvements; interior remodeling; fence installation; and paving. The proposed repairs and upgrades will consist of in-kind repair and/or replacement. During review of the project, no exceptions as described in section 15300.2 of the CEQA Guidelines, were determined to be applicable to the project.

Name of Public Agency Approving Project: County of San Luis Obispo

Exempt Status: *(Check One)*

☐	Ministerial	{Sec. 21080(b)(1); 15268}
☐	Declared Emergency	{Sec. 21080(b)(3); 15269(a)}
☐	Emergency Project	{Sec. 21080(b)(4); 15269(b)(c)}
☒	Categorical Exemption.	{Sec.15301(c)}
☐	Statutory Exemption	{Sec.____}
☐	General Rule Exemption.	{Sec. 15061(b)(3)} (also complete GRE form PLN-1124)
☐	Not a Project _____	

Reasons why project is exempt: The projects consist of the repair, maintenance, or minor alteration of an existing public structure/facility involving negligible or no expansion of use including interior or exterior alterations and restoration or rehabilitation of deteriorated or damaged structures or facilities to meet current standards of public health and safety.

Blaize Uva, (805) 781-4263, buva@co.slo.ca.us

Lead Agency Contact Person (Name, Number, E-mail)

If filed by applicant:
1. Attach certified document of exemption finding
2. Has a notice of exemption been filed by the public agency approving the project? Yes ☐ No ☐

Signature: _____ **Date:** 8/10/2022

Name: **Keith Miller,** kmiller@co.slo.ca.us **Title:** Environmental Division Manager

On _____ the project was Approved by:

☐ Board of Supervisors ☐ Subdivision Review Board ☐ Other _____
☐ Planning Commission ☐ Planning Dept Hearing Officer

Elaina Cano
San Luis Obispo
County Clerk-Recorder
Main Office: (805) 781-5080
Atascadero: (805) 461-6041
www.slovote.com

Receipt: 22-29892

Product	Name	Extended
FISH	FISH AND WILDLIFE FILING	$0.00
	# Pages	2
	Document #	40-08172022-112
	Document Info:	COUNTY OF SAN LUIS OBISPO
	Filing Type	NOE
Total		$0.00
Change (Cash)		$0.00

PLEASE KEEP FOR REFERENCE

8/17/22 10:25 AM abautista
San Luis Obispo

Project No.	Department	Description	Fund Center	ENV Comments
320182	Sheriff	Sheriff-COC-Honor Farm Boiler, PIC31 • Remove and replace boiler	230	Exempt
320183	Fire	Fire-Paso Robles-Meridian Re-Roof, PRB01 • Re-roof	230	Exempt
320184	Gen Govt	Gen Govt-SLO-HVAC & Re-Roof, PTB02_03	230	Exempt
320186	Central Services	CS-San Miguel-Roof & Seismic, PU01 Library-Nipomo-Re-Roof, POB22	230	Exempt
320187	Library	• Re-roof	230	Exempt
320188	Public Works	Public Works-COC-Bldg 1200 Roof, PIC02 • Reroof, replace skylights and aluminum skylight windows	230	Exempt
320189	Public Works	PW-COC-Bldg 1202 RR Reno, PIC04 • Restroom renovation - warehouse and sign shop	230	Exempt
320191	Sheriff	Sheriff-COC-Electrical and HVAC, PIC07 • R/R single zone unit; install new panel in storage area	230	Exempt
320194	Central Services	CS-COC-Fleet Office Trailer Replacement • Replace (E) fleet trailer with (N) modular trailer	230	Exempt
320195	Probation	Probation-COC-JSC Laundry Facility • Add additional washer & dryer in old kitchen area	230	Exempt
320196	Library	Library-AG-Arroyo Grande Library Remodel • Library remodel - upfront work	230	Exempt
320198	Sheriff	Sheriff -COC-Main Jail West Housing Yard Division • Divide West housing yards into two separate areas	230	Exempt
350162	General Government	CS_PW-COC-Seal Coat Paving, PIC04_17_19 • Seal coat and asphalt paving	200	Exempt
350163	General Government	CS-AG-Vets Kitchen/Inter Upgrades, PAB01 • Kitchen interior upgrades	200	Exempt
350164	Public Safety	Probation-COC-Interior Upgrades, PIC35 • Upgrade flooring, paint/refinish interior doors	200	Exempt

APPENDIX B

PUBLIC CONTRACT CODE SECTIONS

PAGE LEFT BLANK INTENTIONALLY

PUBLIC CONTRACT CODE SECTION 9204

(a) The Legislature finds and declares that it is in the best interests of the state and its citizens to ensure that all construction business performed on a public works project in the state that is complete and not in dispute is paid in full and in a timely manner.

(b) Notwithstanding any other law, including, but not limited to, Article 7.1 (commencing with Section 10240) of Chapter 1 of Part 2, Chapter 10 (commencing with Section 19100) of Part 2, and Article 1.5 (commencing with Section 20104) of Chapter 1 of Part 3, this section shall apply to any claim by a contractor in connection with a public works project.

(c) For purposes of this section:

(1) "Claim" means a separate demand by a contractor sent by registered mail or certified mail with return receipt requested, for one or more of the following:

(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 by the public entity 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.

(C) Payment of an amount that is disputed by the public entity.

(2) "Contractor" means any type of contractor within the meaning of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code who has entered into a direct contract with a public entity for a public works project.

(3) (A) "Public entity" means, without limitation, except as provided in subparagraph (B), a state agency, department, office, division, bureau, board, or commission, the California State University, the University of California, a city, including a charter city, county, including a charter county, city and county, including a charter city and county, district, special district, public authority, political subdivision, public corporation, or nonprofit transit corporation wholly owned by a public agency and formed to carry out the purposes of the public agency.

(B) "Public entity" shall not include the following:

(i) The Department of Water Resources as to any project under the jurisdiction of that department.

(ii) The Department of Transportation as to any project under the jurisdiction of that department.

(iii) The Department of Parks and Recreation as to any project under the jurisdiction of that department.

(iv) The Department of Corrections and Rehabilitation with respect to any project under its jurisdiction pursuant to Chapter 11 (commencing with Section 7000) of Title 7 of Part 3 of the Penal Code.

(v) The Military Department as to any project under the jurisdiction of that department.

(vi) The Department of General Services as to all other projects.

(vii) The High-Speed Rail Authority.

(4) "Public works project" means the erection, construction, alteration, repair, or improvement of any public structure, building, road, or other public improvement of any kind.

(5) "Subcontractor" means any type of contractor within the meaning of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code who either is in direct contract with a contractor or is a lower tier subcontractor.

(d) (1) (A) Upon receipt of a claim pursuant to this section, the public entity to which the claim applies shall conduct a reasonable review of the claim and, within a period not to exceed 45 days, shall provide the claimant a written statement identifying what portion of the claim is disputed and what portion is undisputed. Upon receipt of a claim, a public entity and a contractor may, by mutual agreement, extend the time period provided in this subdivision.

(B) The claimant shall furnish reasonable documentation to support the claim.

(C) If the public entity needs approval from its governing body to provide the claimant a written statement identifying the disputed portion and the undisputed portion of the claim, and the governing body does not meet within the 45 days or within the mutually agreed to extension of time following receipt of a claim sent by registered mail or certified mail, return receipt requested, the public entity shall have up to three days following the next duly publicly noticed meeting of the governing body after the 45-day period, or extension, expires to provide the claimant a written statement identifying the disputed portion and the undisputed portion.

(D) Any payment due on an undisputed portion of the claim shall be processed and made within 60 days after the public entity issues its written statement. If the public entity fails to issue a written statement, paragraph (3) shall apply.

(2) (A) If the claimant disputes the public entity's written response, or if the public entity fails to respond to a claim issued pursuant to this section within the time prescribed, the claimant may demand in writing an informal conference to meet and confer for settlement of the issues in dispute. Upon receipt of a demand in writing sent by registered mail or certified mail, return receipt requested, the public entity shall schedule a meet and confer conference within 30 days for settlement of the dispute.

(B) Within 10 business days following the conclusion of the meet and confer conference, if the claim or any portion of the claim remains in dispute, the public entity shall provide the claimant a written statement identifying the portion of the claim that remains in dispute and the portion that is undisputed. Any payment due on an undisputed portion of the claim shall be processed and made within 60 days after the public entity issues its written statement. Any disputed portion of the claim, as identified by the contractor in writing, shall be submitted to nonbinding mediation, with the public entity and the claimant sharing the associated costs equally. The public entity and claimant shall mutually agree to a mediator within 10 business days after the disputed portion of the claim has been identified in writing. If the parties cannot agree upon a mediator, each party shall select a mediator and those mediators shall select a qualified neutral third party to mediate with regard to the disputed portion of the claim. Each party shall bear the fees and 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 this section.

(C) For purposes of this section, mediation includes any nonbinding process, including, but not limited to, neutral evaluation or a dispute review board, in which an independent third party or board assists the parties in dispute resolution through negotiation or by issuance of an evaluation. Any mediation utilized shall conform to the timeframes in this section.

(D) Unless otherwise agreed to by the public entity and the contractor in writing, the mediation conducted pursuant to this section shall excuse any further obligation under Section 20104.4 to mediate after litigation has been commenced.

(E) This section does not preclude a public entity 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.

(3) Failure by the public entity to respond to a claim from a contractor within the time periods described in this subdivision or to otherwise meet the time requirements of this section shall result in the claim being deemed rejected in its entirety. A claim that is denied by reason of the public entity's failure to have responded to a claim, or its failure to otherwise meet the time requirements of this section, shall not constitute an adverse finding with regard to the merits of the claim or the responsibility or qualifications of the claimant.

(4) Amounts not paid in a timely manner as required by this section shall bear interest at 7 percent per annum.

(5) If a subcontractor or a lower tier subcontractor lacks legal standing to assert a claim against a public entity because privity of contract does not exist, the contractor may present to the public entity a claim on behalf of a subcontractor or lower tier subcontractor. A subcontractor may request in writing, either on their own behalf or on behalf of a lower tier subcontractor, that the contractor present a claim for work which was performed by the subcontractor or by a lower tier subcontractor on behalf of the subcontractor. The subcontractor requesting that the claim be presented to the public entity shall furnish reasonable documentation to support the claim. Within 45 days of receipt of this written request, the contractor shall notify the subcontractor in writing as to whether the contractor presented the claim to the public entity and, if the original contractor did not present the claim, provide the subcontractor with a statement of the reasons for not having done so.

(e) The text of this section or a summary of it shall be set forth in the plans or specifications for any public works project that may give rise to a claim under this section.

(f) A waiver of the rights granted by this section is void and contrary to public policy, provided, however, that (1) upon receipt of a claim, the parties may mutually agree to waive, in writing, mediation and proceed directly to the commencement of a civil action or binding arbitration, as applicable; and (2) a public entity may prescribe reasonable change order, claim, and dispute resolution procedures and requirements in addition to the provisions of this section, so long as the contractual provisions do not conflict with or otherwise impair the timeframes and procedures set forth in this section.

(g) This section applies to contracts entered into on or after January 1, 2017.

(h) Nothing in this section shall impose liability upon a public entity that makes loans or grants available through a competitive application process, for the failure of an awardee to meet its contractual obligations.

(i) This section shall remain in effect only until January 1, 2027, and as of that date is repealed, unless a later enacted statute that is enacted before January 1, 2027, deletes or extends that date.

20104. (a) (1) This article applies to all public works claims of three hundred seventy-five thousand dollars ($375,000) or less which arise between a contractor and a local agency.

(2) This article shall not apply to any claims resulting from a contract between a contractor and a public agency when the public agency has elected to resolve any disputes pursuant to Article 7.1 (commencing with Section 10240) of Chapter 1 of Part 2.

(b) (1) "Public work" means "public works contract" as defined in Section 1101 but does not include any work or improvement contracted for by the state or the Regents of the University of California.

(2) "Claim" means a separate demand by the contractor for (A) a time extension, (B) payment of money or damages arising from work done by, or on behalf of, the contractor pursuant to the contract for a public work and payment of which is not otherwise expressly provided for or the claimant is not otherwise entitled to, or (C) an amount the payment of which is disputed by the local agency.

(c) The provisions of this article or a summary thereof shall be set forth in the plans or specifications for any work which may give rise to a claim under this article.

(d) This article applies only to contracts entered into on or after January 1, 1991.

20104.2. For any claim subject to this article, the following requirements apply:

(a) The claim shall be in writing and include the documents necessary to substantiate the claim. Claims must be filed on or before the date of final payment. Nothing in this subdivision is intended to extend the time limit or supersede notice requirements otherwise provided by contract for the filing of claims.

(b) (1) For claims of less than fifty thousand dollars ($50,000), the local agency shall respond in writing to any written claim within 45 days of receipt of the claim, or may request, in writing, within 30 days of receipt of the claim, any additional documentation supporting the claim or relating to defenses to the claim the local agency may have against the claimant.

(2) If additional information is thereafter required, it shall be requested and provided pursuant to this subdivision, upon mutual agreement of the local agency and the claimant.

(3) The local agency's written response to the claim, as further documented, shall be submitted to the claimant within 15 days after receipt of the further documentation or within a period of time no greater than that taken by the claimant in producing the additional information, whichever is greater.

(c) (1) For claims of over fifty thousand dollars ($50,000) and less than or equal to three hundred seventy-five thousand dollars ($375,000), the local agency shall respond in writing to all written claims within 60 days of receipt of the claim, or may request, in writing, within 30 days of receipt of the claim, any additional documentation supporting the claim or relating to defenses to the claim the local agency may have against the claimant.

(2) If additional information is thereafter required, it shall be requested and provided pursuant to this subdivision, upon mutual agreement of the local agency and the claimant.

(3) The local agency's written response to the claim, as further documented, shall be submitted to the claimant within 30 days after receipt of the further documentation, or within a period of time no greater than that taken by the claimant in producing the additional information or requested documentation, whichever is greater.

(d) If the claimant disputes the local agency's written response, or the local agency fails to respond within the time prescribed, the claimant may so notify the local agency, in writing, either within 15 days of receipt of the local agency's response or within 15 days of the local agency's failure to respond within the time prescribed, respectively, and demand an informal conference to meet and confer for

settlement of the issues in dispute. Upon a demand, the local agency shall schedule a meet and confer conference within 30 days for settlement of the dispute.

(e) Following the meet and confer conference, if the claim or any portion remains in dispute, the claimant may file a claim as provided in Chapter 1 (commencing with Section 900) and Chapter 2 (commencing with Section 910) of Part 3 of Division 3.6 of Title 1 of the Government Code. For purposes of those provisions, the running of the period of time within which a claim must be filed shall be tolled from the time the claimant submits his or her written claim pursuant to subdivision (a) until the time that claim is denied as a result of the meet and confer process, including any period of time utilized by the meet and confer process.

(f) This article does not apply to tort claims and nothing in this article is intended nor shall be construed to change the time periods for filing tort claims or actions specified by Chapter 1 (commencing with Section 900) and Chapter 2 (commencing with Section 910) of Part 3 of Division 3.6 of Title 1 of the Government Code.

20104.4. The following procedures are established for all civil actions filed to resolve claims subject to this article:

(a) Within 60 days, but no earlier than 30 days, following the filing or responsive pleadings, the court shall submit the matter to nonbinding mediation unless waived by mutual stipulation of both parties. The mediation process shall provide for the selection within 15 days by both parties of a disinterested third person as mediator, shall be commenced within 30 days of the submittal, and shall be concluded within 15 days from the commencement of the mediation unless a time requirement is extended upon a good cause showing to the court or by stipulation of both parties. If the parties fail to select a mediator within the 15-day period, any party may petition the court to appoint the mediator.

(b) (1) If the matter remains in dispute, the case shall be submitted to judicial arbitration pursuant to Chapter 2.5 (commencing with Section 1141.10) of Title 3 of Part 3 of the Code of Civil Procedure, notwithstanding Section 1141.11 of that code. The Civil Discovery Act (Title 4 (commencing with Section 2016.010) of Part 4 of the Code of Civil Procedure) shall apply to any proceeding brought under this subdivision consistent with the rules pertaining to judicial arbitration.

(2) Notwithstanding any other provision of law, upon stipulation of the parties, arbitrators appointed for purposes of this article shall be experienced in construction law, and, upon stipulation of the parties, mediators and arbitrators shall be paid necessary and reasonable hourly rates of pay not to exceed their customary rate, and such fees and expenses shall be paid equally by the parties, except in the case of arbitration where the arbitrator, for good cause, determines a different division. In no event shall these fees or expenses be paid by state or county funds.

(3) In addition to Chapter 2.5 (commencing with Section 1141.10) of Title 3 of Part 3 of the Code of Civil Procedure, any party who after receiving an arbitration award requests a trial de novo but does not obtain a more favorable judgment shall, in addition to payment of costs and fees under that chapter, pay the attorney's fees of the other party arising out of the trial de novo.

(c) The court may, upon request by any party, order any witnesses to participate in the mediation or arbitration process.

20104.6. (a) No local agency shall fail to pay money as to any portion of a claim which is undisputed except as otherwise provided in the contract.

(b) In any suit filed under Section 20104.4, the local agency shall pay interest at the legal rate on any arbitration award or judgment. The interest shall begin to accrue on the date the suit is filed in a court of law.

PAGE LEFT BLANK INTENTIONALLY

APPENDIX C

COUNTY OF SAN LUIS OBISPO BUILDING STANDARDS (2024 UPDATE)

PAGE LEFT BLANK INTENTIONALLY

COUNTY OF SAN LUIS OBISPO
BUILDING STANDARDS

(2024 Update)

DESIGN GUIDELINES FOR COUNTY FACILITIES

CSI MATERFORMAT 2016

Printed May 2024

DEPARTMENT OF PUBLIC WORKS

County of San Luis Obispo

Building Standards

(2024)

TABLE OF CONTENTS

DIVISION 00	PROCUREMENT & CONTRACTING REQUIREMENTS
DIVISION 01	GENERAL REQUIREMENTS
DIVISION 02	EXISTING CONDITIONS
DIVISION 03	CONCRETE
DIVISION 04	MASONRY
DIVISION 05	METALS
DIVISION 06	WOOD, PLASTICS & COMPOSITES
DIVISION 07	THERMAL & MOISTURE PROTECTION
DIVISION 08	OPENINGS
DIVISION 09	FINISHES
DIVISION 10	SPECIALTIES
DIVISION 11	EQUIPMENT
DIVISION 12	FURNISHINGS
DIVISION 14	CONVEYING EQUIPMENT

FACILITY SERVICES SUBGROUP

DIVISION 21 FIRE SUPPRESSION

DIVISION 22 PLUMBING

DIVISION 23 HVAC

DIVISION 25 INTEGRATED AUTOMATION

DIVISION 26 ELECTRICAL

DIVISION 27 COMMUNICATIONS

DIVISION 28 ELECTRONIC SAFETY & SECURITY

SITE & INFRASTRUCTURE SUBGROUP

DIVISION 31 EARTHWORK

DIVISION 32 EXTERIOR IMPROVEMENTS

DIVISION 33 UTILITIES

APPENDIX A NO SUBSTITUTIONS PRODUCTS REFERENCE

DIVISION 00	**PROCUREMENT & CONTRACTING REQUIREMENTS**				
DESCRIPTION	**SECTION**	**MANUFACTURER**	**PRODUCT / MODEL #**	**CalGreen / LEED Silver Standards**	**NOTES**
Hazardous Materials Information	00 31 26 – Existing Hazardous Material Information				Confirm Existing Hazardous Material Testing with Maintenance/Architectural Services
Survey Information/Soils Report	00 31 21 – Survey Information 00 31 32 – Geotechnical Data				County responsible for providing consultants with soils investigations and geotech reports
GENERAL NOTES:					

DIVISION 01	**GENERAL REQUIREMENTS**				
DESCRIPTION	**SECTION**	**MANUFACTURER**	**PRODUCT / MODEL #**	**CalGreen/LEED Silver Standards**	**NOTES**
Special Airport project Procedures	Special Airport project Procedures				FAA requirements for Airports, including but not limited to DBE, Davis Bacon, Access badges
Special Detention project Procedures	Special Detention project Procedures				BOC requirements for Jails, JSC
Tool Cleaning	Tool Cleaning				No cleaning of tools in sinks allowed
Recycling Requirements	Recycling Requirements			Meet or exceed current Cal Green minimum requirement for non-hazardous waste to be recycled or re-used	Per County/CalGreen standards
01 11 00	Summary of Work			Include LEED Silver Goal	Include goal of achieving LEED Silver goals for project (whether seeking certification or not) See also notes below.
01 30 00	Submittal Requirements			Include LEED Silver Requirements	Include Sustainable Design submittal requirements to reach LEED Silver standard (or certification) See also notes below.
01 74 19	Construction Waste Management & Disposal			Include LEED Silver Requirements	Note performance requirements to achieve LEED Silver level. See also notes below.
01 81 13	Sustainable Construction Requirements			Include LEED Silver/Cal Green Checklists	For new constrution/major additions: Include requirements in Div 01 for meeting LEED/Sustainable construction requirements, including LEED or CalGreen checklists and verification of credits achieved. See also notes below.

GENERAL NOTES:

Make Division 1 specs project specific in how it will meet the County standard of building to a LEED Silver rating level, whether seeking ceritification or not-**applicable only to new construction projects or major additions.**

`

DIVISION 02	**EXISTING CONDITIONS**				
DESCRIPTION	**SECTION**	**MANUFACTURER**	**PRODUCT / MODEL #**	**CalGreen/LEED Silver Standards**	**NOTES**
Haz Mat Assessment	02 26 00				
Selective Site Demolition	02 41 13				Comply with hauling and disposal regulations of authorities having jurisdiction.
Structure Demolition	02 41 16				Comply with governing EPA notification regulations before beginning demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.
Site Remediation	02 50 00				
Facility Remediation	02 80 00				Asbestos abatement, lead remediation plans

GENERAL NOTES:
Provide 02 sections as relevant to scope of project. Coordinate with APCD on requirements well in advance of construction activity

DIVISION 03	**CONCRETE**				
DESCRIPTION	**SECTION**	**MANUFACTURER**	**PRODUCT / MODEL #**	**CalGreen/LEED Silver Standards**	**NOTES**
Concrete Reinforcing	03 20 00 – Concrete Reinforcing				Per project drawings and specifications
Reinforcing steel	03 21 00 – Reinforcing Steel				Per project drawings and specifications
Dowels	03 21 00 – Reinforcing Steel				Per project drawings and specifications
Welded Steel Wire Fabric	03 22 00 – Welded Wire Fabric Reinforcing				Plain
Concrete Slabs	03 30 00 – Cast-In-Place Concrete			Refer to A5.405.5 in CalGreen for concrete/cement requirements	Per project drawings and specifications
Structural Concrete	03 31 00				Per project drawings and specifications
Concrete Paving sidewalks/Finishing	03 33 00 – Architectural Concrete				Per project drawings and specifications
Shotcrete	03 37 00 - Specialty Placed Concrete 13 37 13 - Shotcrete		Manufacturer of ready-mixed concrete products complying with ASTM C 94 requirements for production facilities and equipment		Per project drawings and specifications
Admixtures	03 39 00 – Concrete Curing				Per project drawings and specifications

GENERAL NOTES:
City of SLO standards within downtown area

DIVISION 04	**MASONRY**				
DESCRIPTION	**SECTION**	**MANUFACTURER**	**PRODUCT / MODEL #**	**CalGreen/LEED Silver Standards**	**NOTES**
Concrete Block	04 22 00 – Concrete Unit Masonry	Air Vol or approved equal			
Stone Assemblies	04 43 00 – Stone Masonry				
Stone/Brick Veneer	04 70 00 – Manufactured Masonry	Cultured Stone or equal			Refer to Masonry Veneer Manufacturer's Association 'Installation Guide and Detailing Options for Compliance with ASTM C1780' at https://ncma.org/manufactured-stone-veneer/

GENERAL NOTES:
Drawings and specs prepared by Project Architect and/or Structural Engineer should govern material selection and properties.

DIVISION 05	**METALS**				
DESCRIPTION	**SECTION**	**MANUFACTURER**	**PRODUCT / MODEL #**	**CalGreen/LEED Silver Standards**	**NOTES**
Metal Wall Studs/Channels	05 41 00 - Structural Metal Stud Framing				Per Architect/Engineer's specifications
Stair Treads & Nosings	05 55 00- Metal Fabrications	Wooster Products, Inc., Wooster OH or approved equal			Metal treads, ADA compliant, slip resistant; http://www.woosterproducts.com/
Shop Priming-Galvanized		Galv-Weld or equal			Galv-Weld is a proprietary lead-zinc-tin based re-galvanizing bar which restores the durable protection of the original hot dipped galvanized coating.
Shop Priming-other metals		one coat approved primer			Paint concealed areas before assembly. Remove rust, scale, grease & oil after fabrication & before shop priming.
Field Painting – Galvanized					See Division 09 91 13 for painting notes

GENERAL NOTES:
All metal exposed to view or moisture shall be non-ferrous or heavy hot-dipped galvanized conforming to ASTM A153-60. Dissimilar metals shall not touch.

DIVISION 06	**WOOD, PLASTICS & COMPOSITES**				
DESCRIPTION	**SECTION**	**MANUFACTURER**	**PRODUCT / MODEL #**	**CalGreen/LEED Silver Standards**	**NOTES**
Wood Preservatives	06 05 73.33 – Preservative Wood Treatment	Copper Naphthenate (green) or Zinc Naphthenate (clear)			Application rate of 0.25 pcf for above ground conditions. 0.4 pcf for ground contact for sills, sleepers, etc. in contact w/masonry or conc. and cants, nailers, curbs, equip. support bases, etc. in connection w/roofing, flashing & waterproofing.
Sheathing	06 16 00 - Sheathing	Plywood/OSB			Per Architect's/Engineers specifications. Must be APA rated.
Millwork	06 22 00 - Millwork	WI Custom Grade		For LEED Silver projects: Specify wood products manufactured within 500 miles of project site. Specify wood products produced from forests certified by an FSC-accredited certification body to comply with FSC STD-01-001	Architectural Woodwork shall be manuf. in accordance w/standards established in the Manual of Millwork of the Woodwork Institute of California, latest edition, for WIC “Custom” Grade.
Composite Decking	06 73 00	Trex, or equal			
Plastic Fabrications	06 61 16- Solid Surfacing Fabrications	Corian or equal			
FRP	06 82 00 – Glass-Fiber Reinforced Plastic	Marlite or equal			Required at Restrooms, Janitor Closets – 4ft. high & 4 ft. horizontally in front of or to the side of sanitary fixtures, minimum.

GENERAL NOTES:
See Division 12 for plastic laminate clad casework, countertops

DIVISION 07	**THERMAL & MOISTURE PROTECTION**				
DESCRIPTION	**SECTION**	**MANUFACTURER**	**PRODUCT / MODEL #**	**CalGreen/LEED Silver Standards**	**NOTES**
Insulation	07 21 00 – Thermal Insulation	Johns Manville or equal		Select insulation whose R-value exceeds code requirements for LEED points	Promote recycled content &specify formaldehyde-free products
Blanket Insulation	07 21 16 – Blanket Insulation	Johns Manville or equal			Faced or unfaced
Blown-In Insulation	07 21 26 – Blown Insulation	Johns Manville or equal			
Asphalt Shingles	07 31 13.13 – Fiberglass-Reinforced Asphalt Shingles	Fiberglass & asphalt comp. conforming to ASTM D3462 & ASTM D3018, Type 1. Class A Fire & Wind Resistand Labels, 240#/sq. min. wt.	CertainTeed, Landmark Pro, or equal	Recycle removed shingles.	Architectural grade Valleys shall be metal, not woven shingles. Install o/single ply of 15# underlayment o/solid sheathing.
Roofing Underlayment-synthetic		Owens Corning, CertainTeed, or equal, Class A Fire ASTM E108	Titanium UDL30, DiamondDeck, or eq.	Contributes to LEED points, 100% recyclable	For use under asphalt shingles, synthetic shingles, metal roofing, tiles, slate and cedar shakes
Membrane Roofing	07 50 00 – Membrane Roofing	Johns Manville, SIKA Sarnafil or equal	Ultraguard, SR-80 reinforced	Specify cool roof products	Single ply roofing
Fluid Applied Roofing	07 56 00 – Fluid Applied Roofing	Astec or equal	Astec #900		Fluid applied insulating coating, ceramic filled 100% acrylic elastomeric, for sloped roofing and other surfaces
Roof Hatches	07 72 33 – Roof Hatches	Dur-Red (www.dur-red.com), BILCO or equal	Ladder Hatch-Model LH with EZ-Up ladder		14 ga., Galvanized, fully welded, pre-assembled w/heavy duty 3/16” gav. pivot hinges, lid w/fiberglass insulation & inside/outside handles w/padlock, auto hold-open.

Building Felt		Asphalt saturated organic felt, ASTM D226, Type I (15#)			Fasteners: Standard staples, hot dipped zinc coated steel. Provide 2 horiz. plies in shingle fashion at siding, plaster, roofing, flashings & wall openings Fasteners: Standard staples, hot dipped zinc coated steel. Provide 2 horiz. plies in shingle fashion at siding, plaster, roofing, flashings & wall openings No tears or punctures
Flashing paper	07 65 00 – Flexible Flashing	Std. asphaltic coated, moisture-resistant			Install per SMACNA in coordination w/underlayment. Weatherlap joints 4” min. & seal w/plastic cement. Stagger joints between layers, lap ends 6” min, stagger end joints. Add extra layer 18” min. at int. & ext. blg. corners w/6” min weatherlap, staple in place. 9” wide strips, folded in 90 deg. angle at all windows & ext. doors.
Plastic cement					Free of toxic solvents FS SS-C-153.
Gutters & Downspouts	07 71 23 – Manufactured Gutters & Downspouts	22 ga. min., 3”x4” min			Provide cleanout at grade.
Reglets	07 71 26 - Reglets	Fry Reglet Corp./Springlok System, MM Systems Corp./Snap-Tite Sys or Equal			Pre-manufactured

GENERAL NOTES:

All roofing shall have a minimum 2-year contractor's warranty for labor and materials. Roofing shall be sloped. No flat roofs are permitted. Asphalt shingles shall have a 2ply underlayment. Tile roofing shall have a 2 ply hot mopped underlayment. Provide gutters and downspouts on the exterior of the building.
No touching of dissimilar metals allowed. Hem exposed edges on underside ½”. Backpaint flashings w/heavy-bodied bituminous paint where in contact w/cementitious or dissimilar materials.

DIVISION 08	**OPENINGS**				
DESCRIPTION	**SECTION**	**MANUFACTURER**	**PRODUCT / MODEL #**	**CalGreen/LEED Silver Standards**	**NOTES**
Hollow Metal Doors & Frames	08 11 00 – Metal Doors & Frames	Steelcraft or Approved Equal	Exterior: Steelcraft "L" Series 16 ga honeycomb core or "S" or "A" Series 16 ga. tubular for full glass, galvanized, w/galvanized 14 ga. frames. Interior: Steelcraft "L" Series honeycomb core, or "S" or "A" series for full glass 18 ga w/16 ga frames.	Refer to TABLE A.5.205.1-A and 1-B in 2016 CalGreen for window assembly required U-factor and Solar Heat Gain Coefficient (SHGC) values	If not Steelcraft, the "or equal" must match Steelcraft hinge and lock layout. Use 6" wide stile exterior doors
Interior Metal Frames	08 12 00 – Metal Frames	16 ga. Grade III extra heavy duty pre-finished steel.			
Exterior Metal Frames	08 12 00 – Metal Frames	Welded, pre-assembled, 14 ga. Grade III, extra heavy duty w/G90 Zinc coating complying w/ASTM A525.			If not Steelcraft, the "or equal" must match Steelcraft hinge and lock layout
Exterior Hollow Steel Doors	08 13 00 – Metal Doors	16 ga. Grade III extra heavy duty pre-finished steel w/G90 Zinc coating coating complying w/ASTM A525.			If not Steelcraft, the "or equal" must match Steelcraft hinge and lock layout
Wood Doors	08 14 00 – Wood Doors				
Exterior Doors	08 14 00 – Wood Doors	1 ¾" thick, solid staved wood core, flush type.			Provide door top weatherstripping cap or equiv. means of protecting top edge. Stiles & rails to be bonded to core.
Interior Doors	08 14 00 – Wood Doors	1 ¾" thick min., solid core.			Stiles & rails to be bonded to core.
Specialty Doors & Frames	08 30 00				
Overhead Coiling Door	08 33 23	Overhead Door Co., or equal	Light Duty: Model 600 Rolling Steel Door; Heavy Duty: Model 610; Insulated: Model 620 'Stormtite'; or eq.		Choose appropriate model for size of opening, intensity of use & if interior space is conditioned or unconditioned.
Storefronts	08 40 00- Entrances, Storefronts, Curtain Walls	Kawneer or equal			
Windows	08 50 00			Refer to TABLE A.5.205.1-A and 1-B in 2016 CalGreen for window assembly required U-factor and Solar Heat Gain Coefficient (SHGC) values	

Metal Windows	08 51 13- Aluminum Windows	Kawneer or equal	Trifab, or other as applicable		3 year min. warranty
Vinyl Windows	08 53 00 - Plastic Windows	Milgard or equal	Style Line Series		
Skylights	08 60 00				
Tubular Skylights	08 62 23 - Tubular Skylights	Solatube or equal	Brighten Up Series		
Hardware - General	08 71 00 – Door Hardware				ADA Compliant. **NO SUBSTITUTIONS**
Key System	08 71 00 – Door Hardware	SCHLAGE, Primus Level 3 Interchangeable Core (IC), Factory Registered, Patent Protected Key System.			Submit to County to stamp to County's identification system. **NO SUBSTITUTIONS**
Locksets	08 71 00 – Door Hardware	SCHLAGE, Series L or D, full-size, interchangable core	Primus 6 pin, keyway designated by County, Level 3 IC cylinders.		County to key and provide Primus cores. **NO SUBSTITUTIONS**
Deadbolts	08 71 00 – Door Hardware	SCHLAGE IC type body Large format	Primus core, B700R or B600R series		**NO SUBSTITUTIONS**
Combination Entry Control Locks	08 71 00 – Door Hardware	SCHLAGE AD Series NO SUBSTITUTIONS	Per requirements		**NO SUBSTITUTIONS**
Electronic Access Controls	08 71 00 – Door Hardware	SCHLAGE, AD Series, MTK with 8 AA batteries. NO SUBSTITUTIONS			**NO SUBSTITUTIONS**
Padlocks	08 71 00 – Door Hardware	SCHLAGE, Kryptonite Series NO SUBSTITUTIONS	Full IC adaptable		**NO SUBSTITUTIONS**
Cabinet Locks	08 71 00 – Door Hardware	**SCHLAGE,** CL 1000/2000 Series			**NO SUBSTITUTIONS**
Door Closers	08 71 00 – Door Hardware	LCN- No substitutions	Exterior: LCN 4040 Series, use EDA arms at out-swinging doors. Interior: LCN 4040. Automatic Operators: At retro-fit applications, use LCN 4600 Series. At new applications, use Dor-O-matic Senior Swing Series.		Mount on room side or pull side u.o.n. **NO SUBSTITUTIONS**
Panic Hardware	08 71 00 – Door Hardware	Von Duprin- No substitutions	Von Duprin CD98 or CD35 Series.		Use key-removable mullions plus rim devices at pairs when possible. Use LBR and 996L-F lever trim at rated openings less CD. Use 94 Series when advised. **NO SUBSTITUTIONS**
Mullions	08 71 00 – Door Hardware	Von Duprin- No substitutions	KR Series w/MT54 storage bracket kits.		**NO SUBSTITUTIONS**

Hinges & Butts	08 71 00 – Door Hardware	Conventional: Ives CB1 Serires, Stanley, Hager, McKinney. Continuous: Pemko, Hager, Zero 914-SC or 919STST	Ball Bearing, Heavy duty or extra heavy duty. 4 ½" size		Non-ferrous butts w/non-removable vandal-proof pins at exterior, outswinging doors, stainless steel butts at labeled doors.
Door Stops	08 71 00 – Door Hardware	Ives/Quality or approved equal			
Wall Stops	08 71 00 – Door Hardware	Ives/Hager/Rockwood/Quality or approved equal			
Overhead Stops	08 71 00 – Door Hardware	Glynn Johnson	90 Series & 100 Series		
Thresholds	08 71 00 – Door Hardware	Pemco or approved equal			
Door Plates	08 71 00 – Door Hardware	Kickplates: Ives 8400 Series, 12"H x 2" less than door width (1" LDW at non mullioned pairs), Hager. Push/Pull Plates: Ives, Hager, Rockwood. Latch Guards: Ives, Hager, Rockwood			
Door Seals	08 71 00 – Door Hardware	Pemko, Zero, Reese.			
Hardware - Detention					
Locks and Electric Locks		Note: Jail Locks are Southern Steel and Brinks	Primus 6 pin, keyway designated by County, IC cylinders.		County to key and provide Primus cores. **NO SUBSTITUTIONS**
High security hinges and butts	08 71 63 – Detention Door Hardware	Southern Steel or Folger Adams			Jails and prisoner holding areas
Solar Control Films	08 80 00 – Glazing / 08 87 13 – Solar Control Films	Sun-Gard / Glass-Gard			SHGC ≤ 0.39 or ≤ 0.47 with VT/SHGC ration > 1.3
Safety Films	08 80 00 – Glazing / 08 87 16 – Safety Films	3M or equal			
Glazing	08 80 00 – Glazing			Specify high thermal performance, low-e glazing	Meet or exceed T24, CalGreen standards
Ballistics-Resistant Glazing	08 80 00 – Glazing / 08 88 56 – Ballistics-Resistant Glazing				
Louvers and Vents					

GENERAL NOTES:

Windows shall be dual glazed and operable except for skylights and where security requirements must be met. Window frames shall be aluminum (UNO) and provided with a baked on powder coated finish. Windows shall be equipped with aluminum frame and mesh screens, and designed for coverings and solar control.

Exterior doors shall be galvanized steel doors and frames and be factory primed. Interior wood doors and frames shall be solid core. Door hardware shall be lever operated, aluminum, satin or brush finished. Contractor shall provide interior door cores, and hardware for interior and exterior doors. The County shall set keying for all doors and provide and install the primus cores (exterior doors).

DIVISION 09	**FINISHES**				
DESCRIPTION	**SECTION**	**MANUFACTURER**	**PRODUCT / MODEL #**	**CalGreen/LEED Silver Standards**	**NOTES**
General				Finish materials shall comply with CalGreen VOC limits. Look for products that are 'Greenguard Certified'.	Refer to CalGreen Section 5.504; Provide extra floor, wall and ceiling material equal to 2% minimum of quantity installed to Owner as extra stock for maintenance.
General				Comply with T24 Ch. 8 and VOC limits per Collaborative for High Performance Schools (CHPS) criteria & listed on its High Performance Products database	Building products must be tested and determined compliant in accordance with California Department of Public Health (CDPH) Standard Method v1.1–2010, using the applicable exposure scenario.
Interior wall assemblies	09 21 16 – Gypsum Board Assemblies	Standard Finish			ASTM C365/8" fire resistant Type 'X' gyp bd., min. Water resistant at all wet locations Attached w/appropriate screws @ 7" o.c. No Nails permitted
Portland Cement Stucco	09 24 00 – Portland Cement Plastering / 09 24 23 – Portland Cement Stucco	La Habra or Equal			Plaster application: Comply with ASTM C 926 Metal Lath & accessories: install per ASTM C 1063
Gypsum Board	09 29 00	USG Corporation, National Gypsum Company, Georgia Pacific, or Equal	5/8" thickness typical; 1/4" thickness for curved, flexible applications. Type 'X' at fire-rated assemblies		Impact Resistant gyp: ASTM C1629/1629/M **Gyp. Bd. Finish Levels**: **Level 1**- concealed areas; **Level 2**- substrate for tiles; **Level 3**- Where indicated on drawings; **Level 4**- at areas exposed to view with flat paint finish, **Level 5**: At panel surfaces that will be exposed to view with non-flat paint finish; unless indicated otherwise.
Mold and Moisture Resistant Gypsum Board	09 29 00	USG Corporation, National Gypsum Company, Georgia Pacific, or Equal	USG Mold Tough Firecode Core Gypsum Panels, or equal		ASTM C 630 or ASTM C 1396.
Backing Board	09 28 00 – Backing Boards & underlayment / cementitious Backing Boards	HardiBacker or equal			
Ceramic Tiling	09 30 00 - Tiling / 09 30 13 Ceramic Tiling	Daltile, Crossville, American Marazzi Tile			Provide tile that complies with ANSI A137.1. Follow TCNA installation methods. Obtain tile of each type and color from the same production run.

Acoustical Ceiling Tile	09 50 00 – Ceilings / 09 51 23 – Acoustical Tile Ceilings	Armstrong, CertainTeed or equal			
Acoustical Ceiling Suspension Assemblies	09 50 00 – Ceilings / 09 53 23 – Metal Acoustical Ceiling Suspension Systems				Install acoustical panel ceilings to comply with ASTM C 636/C 636M and seismic design requirements indicated, according to manufacturer's written instructions and CISCA's "Ceiling Systems Handbook."
Flooring	09 60 00- Flooring				
Resilient Base & Accessories – Thresholds, edging, transitions	09 60 00 – Resilient Flooring 09 65 13 – Resilient Base & Accessories	Burke, Mercer or approved equal			4” typ., 6” to match existing or as specified (prefer Brown or Black if not matching existing). With pre-molded internal & external corners. Use full lengths, no lengths less than 8”.
Resilient Sheet Flooring	09 65 16 – Resilient Sheet Flooring	Mannington Commercial, LG Chem., Armstrong, Forbo or approved equal	Fine or Random fields, Constellation Series, Marmoleum Fresco	Products compliant with 2012 CHPS criteria and listed on its High Performance Products Database	Commercial grade, inlaid sheet vinyl, 5 year warranty. Prepare substrates according to floor tile manufacturer's written instructions to ensure adhesion of resilient products.
Carpeting	09 68 00 – Carpeting 09 68 13 – Tile Carpeting 09 68 16 – Sheet Carpeting	Tandus Centiva; Powerbond, Modular Broadloom, Woven and LVT or equal	Min. 20 oz./SY	Carpet systems shall meet testing & product requirements per CalGreen 5.504.4.4	Meet Carpet and RI's Green Label Plus Program. Minimum 10 yr. warranty. Tile carpet preferred for waste reduction. NSF/ANSI-140 Sustainability Assessment for Carpet Standard
Entrance Mats	09 68 13 – Tile Carpeting	Tandus Centiva or equal			Integral entrance mat; ADA compliant
Painting & Coating	09 90 00 – Painting & Coating			Comply with CalGreen VOC limits per 5.504.4.3	Cal Green Table 5.504.4.4
Exterior Wall Paint	09 91 13 – Exterior Painting	Sherwin Williams, Promar 200, or equal	Low sheen: #B33W200 Semi-gloss: #B34W200 Hi-gloss: #B35W200		
Exterior Wall Paint	09 91 13 – Exterior Painting	Sherwin Williams, or Equal	1st Coat: Loxon Exterior Acrylic Masonry Primer A24W00300 2nd & 3rd Coats: SuperPaint Exterior Acrylic Latex Satin Finish A89W00507		For Stucco, Masonry, Concrete, Plaster, Hardi-Plank
	09 91 13 – Exterior Painting	Sherwin Williams, or Equal	1st Coat: Heavy Duty Acrylic Block Filler B42W00046 2nd & 3rd Coats: SuperPaint Exterior Acrylic Latex Satin Finish A89W00507		

	09 91 13 – Exterior Painting	Sherwin Williams, or Equal	1st Coat: A-100 Exterior Oil Wood Primer Y24W00020 2nd & 3rd Coats: SuperPaint Exterior Acrylic Latex Satin Finish A89W00507		Wood/Painted
	09 91 13 – Exterior Painting	Sherwin Williams, or Equal	1st & 2nd Coats: Woodscapes Exterior Polyurethane Semi-Transparent Stain A15T00005		Wood/Stained/Semi-transparent Finish
	09 91 13 – Exterior Painting	Sherwin Williams, or Equal	1st & 2nd Coats: Woodscapes Exterior Acrylic Solid Color Stain A15W00051		Wood/Stained/Opaque Finish
	09 91 13 – Exterior Painting	Sherwin Williams, or Equal	1st Coat: Kem Bond HS Universal Metal Primer Off White B50WZ0004 2nd & 3rd Coats: DTM Acrylic Coating Semi-Gloss B66W00211		Ferrous Metal
	09 91 13 – Exterior Painting	Sherwin Williams, or Equal	Pretreatment: Jasco Metal Etch 1st Coat: DTM Acrylic Primer Finish B66W00001 2nd & 3rd Coats: DTM Acrylic Coating Semi-Gloss B66W00211		Galvanized Metal
Interior Wall Paint - Offices	09 91 23 – Interior Painting	Sherwin Williams, or equal	Latex Enamel (Lo sheen) Latex Flat (Weathercoat) Latex Primer (PVA sealer - Acrylic primer)		
		Sherwin Williams, or equal	1st Coat: ProMar High Holdout Primer B28WY2000 2nd & 3rd Coats: ProMar 200 Interior Latex Low Sheen ES Enamel Extra White B20W01251	Zero VOC Interior Latex-Complies with LEED v4, GREENGUARD Environmental Institute (GEI) and other green guidelines and regulations	Drywall/Offices – (All areas except Public Areas, Restrooms, & Wet locations.
		Sherwin Williams, or equal	1st Coat: ProMar High Holdout Primer B28WY2000 2nd & 3rd Coats: ProMar 200 Interior Latex Semi-Gloss Extra White B31W02251		Drywall/Public Areas, Restrooms, & Wet locations.

		Sherwin Williams, or equal	1st Coat: PrepRite Classic Interior Latex Primer White B28W00101 2nd & 3rd Coats: ProMar 200 Interior Latex Semi-Gloss Extra White B31W02251		Plaster/Concrete
		Sherwin Williams, or equal	1st Coat: ProMar White Lacquer Undercoater White B44WT0001 2nd & 3rd Coats: ProMar 200 Interior Latex Semi-Gloss Extra White B31W02251		Wood Doors & Jambs, Trim/Painted
		Sherwin Williams, or equal	1st Coat: Kem Bond HS Universal Metal Primer Off White B50WZ0004 2nd & 3rd Coats: ProMar 200 Interior Latex Semi-Gloss Extra White B31W02251		Ferrous Metal
		Sherwin Williams, or equal	Pretreatment: Jasco Metal Etch 1st Coat: DTM Acrylic Primer Finish B66W00001 2nd & 3rd Coats: ProMar 200 Interior Latex Semi-Gloss Extra White B31W02251		Galvanized Metal
		Sherwin Williams, or equal	1st Coat: PrepRite Block Filler White B25W00025 2nd & 3rd Coats: ProMar 200 Interior Latex Semi-Gloss Extra White B31W02251		CMU Block
		Sherwin Williams, or equal	Salt Water Taffy #SLO 7744 Cashmere #SLO 7129 Brie #SLO 13447		Standard Interior Paint Colors for Offices, Parks has their own standards
Exterior elastomeric coat	09 96 53 – Elastomeric Coatings	VIP, Sherwin Williams	2 coats min. 2 mil. each		3 Year NDL

Epoxy Floor Coating	09 96 56 - Epoxy Coatings	Rustoleum, or equal	6000 System Water-based Epoxy		A two-component water-based epoxy coating for application to concrete floors. Parks Dept preferred product for pool houses, decks, and other wet areas.

GENERAL NOTES:

1. Use Standard Office colors per Project Manager/Maintenance or as otherwise directed in writing.
2. Use Standard Parks colors for Parks projects.
3. For all floor and wall finishes, the project Specifications should state the amount of extra stock to be delivered to the County at project completion for use for repairs/remodels.

DIVISION 10	SPECIALTIES				
DESCRIPTION	**SECTION**	**MANUFACTURER**	**PRODUCT / MODEL #**	**CalGreen/LEED Silver Standards**	**NOTES**
Signage	10 14 00			Manufactured within 500 miles of project site	Must meet ADA; Refer also to the County 'Room Numbering Standards' and "Installation of County Identity Mark' document for standards related to Signage.
Plaques	10 14 16				Cast Bronze; mechanically fastened with concealed fasteners
Panel/Room ID Signage	10 14 23	ASI Sign Systems Inc., APCO Graphics, Inc., Best Sign Systems or equal			Design per project drawings, ADA compliant, concelaed fasteners or adhesive mount as specified
Toilet Compartments	10 21 13 - Toilet Compartments	Santana:(www.santanaproducts.com) Scranton Products or Approved Equal			15 yr Warranty, Poly-Mar HD or Poly-Granite HD, High Density Polyethylene (HDPE) w/min. 10% recycled matl., waterproof, non-absorbent, self-lubricating surface that resists markings by writing utensils, 1" thick, ADA compliant where required
Offices, Public Facilities	10 21 13.19 –Plastic Toilet Compartments; 10 21 13.14- Stainless Steel Toilet Compartments	Santana ; Bradley Corp/Mills Partitions., ASI Accurate Partitions Corp. or equal		Look for recycled content	Stainless Steel- 15 year warranty; Solid Plastic-15 year warranty; Phenolic- 3 year warranty
Parks & Public Use buildings	10 21 13.19 – Plastic Toilet Compartments	Santana or Approved Equal	Poly-Mar HD		or approved equal
Corner Guards	10 26 00 – Wall & Door Protection	Acrovyn or equal			
Toilet, Bath & Laundry Accessories (10 28 00)					
Commercial (OFFICES/BUSINESS AREAS)	10 28 13.13 – Toilet Accessories				Provide ADA-compliant accessories as required, typ.
Toilet Paper Dispensers:					
Partition mounted for 2 stalls		Bobrick, Bradley, or approved equal	Std: B-386, key lock, double roll ADA:		stainless steel, satin finish
Recessed mounted		Bobrick, Bradley, or approved equal	B-4388		stainless steel, satin finish
Surface mounted		Bobrick, Bradley, or approved equal	Std: B-2888, key lock, double roll, surface mounted		stainless steel, satin finish
Combination Dispensers:					

Women (TP, seat covers, sanitary disposal)		Bobrick, Bradley, or approved equal	B-357, 2 stalls – (2 STD) B-3571, 2 stalls (1 ADA, 1 STD) B-3574, 1 stall recessed		stainless steel, satin finish
Men. (TP, seat covers)		Bobrick Koala Kare Products or equal	B-347 2 stalls B-3471 2 stalls (1 ADA) B-3474 1 stall recessed		stainless steel, satin finish
Soap Dispensers:					
Surface-mounted, plastic		Deb Group	Deb Manual Ultra Foam Soap Dispensing system		or equal; mounted per ADA requirements
Hands-free Soap Dispenser		Deb Group	Wall-mounted Touch Free Foam Soap Dispenser, battery-operated		or approved equal; mounted per ADA requirements
Hands-free Counter-mounted Soap Dispenser		Deb Group; SC Johnson	CTF16LC, Counter-mount CTF Ultra touch-free soap dispenser, battery-operated		or approved equal
Paper Towel Dispensers:					
Hands-Free Paper Towel dispenser- Surface-mounted		Georgia Pacific, or equal	EnMotion automated roll towel dispenser		
Hands-Free Paper Towel dispenser- Recessed (ADA)		Georgia Pacific, or equal	GP Pro EnMotion #59466-Recessed Automated Touchless Paper Towel Dispenser, battery-operated		or approved equal; Stainless Steel finish

Waste Receptacles:					
Recessed (ADA)		Bradley, or equal	Model 315-35, 9.2 Gallon Waste Receptacle – Framed, Recessed		Stainless steel, satin finish, push flap door, leakproof molded plastic insert
Recessed (ADA)		Bobrick, or equal	B-35643 TrimLineSeries™		Recessed satin-finish stainless steel with all-welded construction.Removable, leak-proof waste bin, 12-gal capacity
Semi-Recessed		Bobrick, or equal	B-3644, 12 gal., with LinerMate		or approved equal, stainless steel, satin finish

Wall-mounted		Bobrick, or equal	B-277, Type 304 stainless steel, w/LinerMate, 12.75 gal.		or approved equal, stainless steel, satin finish
Waste receptacle-free-standing		Bobrick, or equal	B-2300, floor-standing dome-top, w/6" dia. opening, 18 gal.		or approved equal, stainless steel, satin finish
Combination Paper Towel/Waste Receptacle Units:					
Paper Towel /Waste combo unit- recessed		Bobrick, or approved equal	ClassicSeries® B-39747; Convertible automatic universal, roll paper towel dispenser, 18-gallon waste receptacle. Satin-finish stainless steel. Seamless beveled flange.		Satin-finish stainless steel. Seamless beveled flange.
Baby Changing Stations:					
Recessed- Stainless Steel		Bobrick,or approved equal	Koala Kare Product, or equal, KB310-SSWM Horizontal Stainless Steel Surface-Mounted		ADA compliant , stainless steel, satin finish
Surface-mounted, Plastic		Bobrick,or approved equal	Koala Kare Product, or equal, KB300 Horizontal Surface-Mounted		ADA compliant; bacterial-resistant, high density plastic
Other Washroom Accesories:					
Seat Cover Dispenser		Bobrick, Bradley, or approved equal	B-221, surface-mounted		stainless steel, satin finish
Grab bars		Bobrick, Bradley, or approved equal	B-6806 x required length for ADA compliance		ADA 18 ga. 1.5" dia. Type 304 stainless steel, satin finish. 13 ga. concealed mounting flange. 1.5" clr. from wall. Can support 900lbs.
Folding utility shelf		Bobrick, Bradley, or approved equal	B-287		stainless steel, satin finish
Robe Hooks		Bobrick, Bradley, or approved equal	B-6717		stainless steel, satin finish
Mirrors		Bobrick, Bradley, or approved equal	B-290 Series, stainless steel welded frame		stainless steel, satin finish
Mop and broom holder		Bobrick, Bradley, or approved equal	B-223 x 24, 3 holders		stainless steel, satin finish
Shelf/mop holder combo		Bobrick, Bradley, or approved equal	B-239, shelf, 4 hooks, 3 mop holders		stainless steel, satin finish
Underlavatory Guard (ADA)		Plumberex Specialty Products, Truebro by IPS Corp.	Pro-Extreme by Plumberex or equal		Antimicrobial, molded plastic, white
Parks - Toilet Accessories					
Toilet paper dispensers		n/a			

Paper towel dispensers		n/a			
Electric hand dryers		World Dryer	VERDEdri		Hard wired; high-speed, surface-mounted ADA compliant handdryer
Waste receptacle-free-standing		Rubber Maid	32 Gallon		or approved equal, polyurathane
Fire Protection Specialties					
Fire Extinguisher Cabinets	10 44 13- Fire Extinguisher Cab	American Specialties, Inc., Guardian Fire Equipment, JL Industries, or equal			Listed and labeled to comply with ASTM E 814 for fire-resistance ratingof walls where they are installed. Mounted to meet ADA requirements. Surface, semi-recessed or recessed per drawings.
Fire Extinguishers	10 44 16 – Fire Extinguishers	Amerex, Ansul or Approved Equal	TCP-5LH, 2A-10B-C		www.Amerex-fire.com www.ansul.com
Other Specialties					
Bird Control Devices	10 81 13- Bird Control Devices	Nixalite or Approved Equal	Premium All Stainless SteelBird Barrier Spikes		Required for use on all communication buildings

GENERAL NOTES:

Restroom accessories that are keyed must be made by the same manufacturer and be keyed to one key. Specify accessories that are compatible to the County's paper and custodial products. Submit drawings to County maintenance staff for review and comment. If listed products have been discontinued, provide model with equivalent specs.

DIVISION 11	**EQUIPMENT**				
DESCRIPTION	**SECTION**	**MANUFACTURER**	**PRODUCT / MODEL #**	**CalGreen/LEED Silver Standards**	**NOTES**
Security Equipment	11 15 00 – Security, Detention and Banking Equipment				
Residential Equipment	11 30 00 – Residential Equipment	GE, LG, or equal			Energy Star, water efficient
Kitchen Equipment	11 40 00- Food Service Equipment				Demand Control Kitchen Ventilation if possible.
Vending Machine	Vending Machine				Vending machines to be ADA-compliant and must have controller that will turn off lights and compressor when surrounding area is unoccupied for a time period adjustable between 15 and 60 minutes.
GENERAL NOTES:					

DIVISION 12	**FURNISHINGS**				
DESCRIPTION	**SECTION**	**MANUFACTURER**	**PRODUCT / MODEL #**	**CalGreen/LEED Silver Standards**	**NOTES**
Blinds	12 21 00 – Window Blinds	Levelor, Hunter Douglas or equal	Levelor Riviera aluminum blinds		Metal blinds with recycled content preferred
Countertops	12 36 00 – Countertops 12 36 23.13 – Plastic Laminate Clad Countertops	Wilsonart, Nevamar, Formica or equal			**Exposed Edge Treatment:** Postformed laminate; At Kitchen and Restroom countertops front edge substrate built up to minimum 1-1/4 inch thick with raised radiused edge, integral coved backsplash with radiused top edge. At Worksurfaces: Molded PVC edge with T-spline, sized to completely cover edge of panel. ANSI A161.2.
Systems Furniture	12 59 00 – Systems Furniture	**Herman Miller - substitution is only with prior County approval**			Typically, owner supplied, to be verified per project.Remanufactured product may be used to match existing remanufactured items or for large orders with approval of Arch Services Project Manager

GENERAL NOTES:
County has standardized on Herman Miller modular furnishing systems. Verify whether furnishing to be owner provided & installed, or owner provided/contractor installed, or contractor provided/ contractor installed.
For other types of furnishings consult the Purchasing Division of the Department of Central Services and the Client Department.
There are specific requirements for library furnishings and for library shelving as well as the courts furnishings.

DIVISION 13	**SPECIAL CONSTRUCTION**				
DESCRIPTION	**SECTION**	**MANUFACTURER**	**PRODUCT / MODEL #**	**CalGreen/LEED Silver Standards**	**NOTES**
Metal Building Systems	13 34 19		`		Per project drawings/specifications
Portable/Mobile Buildings	13 34 23.13				Per project drawings/specifications
GENERAL NOTES:					

DIVISION 14	**CONVEYING EQUIPMENT**				
DESCRIPTION	**SECTION**	**MANUFACTURER**	**PRODUCT / MODEL #**	**CalGreen/LEED Silver Standards**	**NOTES**
Elevators	14 20 00 - Elevators	Otis, or approved equal	`		ADA compliant
Vertical Platform Lifts	14 42 16 Vertical Wheelchair Lifts	Ameriglide, McKinley or equal			ADA compliant
Cab Interior Finishes		Manufacturer specific			For exterior and possible high vandalized elevators, select cab interior finishes that have high vandal resistant - e.g.: 5WL, Starbright, etc.
GENERAL NOTES: ***Verify with current elevator maintenance provider to see if they can maintain elevator system for new buildings.***					

DIVISION 21	**FIRE SUPPRESSION**				
DESCRIPTION	**SECTION**	**MANUFACTURER**	**PRODUCT / MODEL #**	**CalGreen/LEED Silver Standards**	**NOTES**
Fire Suppression System	21 00 00- Water-Based Fire Suppression Systems		`		Per project drawings and specifications
Fire Pumps	21 30 00- Fire Pumps				Per project drawings and specifications
Water Storage Tanks	21 40 00- Fire Suppression Water Storage				Per project drawings and specifications
GENERAL NOTES:					

DIVISION 22	**PLUMBING**				
DESCRIPTION	**SECTION**	**MANUFACTURER**	**PRODUCT / MODEL #**	**CalGreen/LEED Silver Standards**	**NOTES**
Flash Water Heaters	22 33 13 - Instantaneous Electric Domestic Water Heaters	Noritz America Corp., Rinnai or equal			7.9 gal/min within a 35 degree temperature rise. 80-85% efficiency, able to connect to additional unit by cord & controlled by single digital remote thermostat to easily double the capacity.
Commercial Plumbing Fixtures	22 42 00	All products to be ADA compliant		http://www.epa.gov/WaterSense/product_search.html	**Use fixtures from the EPA Water Sense list of approved products if available.**
Water Closets					
Water Closet - floor mounted with flushometer- ADA compliant	22 42 13	American Standard, Kohler, Crane or approved equal	Am. Standard, Madera FloWise, 1.28 gpf		Solid plastic seat w/opening 1.28 GPF or less, elongated bowl, color: white, ADA compliant
Water Closet - tank type- ADA compliant	22 42 13	Kohler, American Standard or approved equal	American Standard- Champion Pro Right Height Elongated Toilet		1.28 GPF or less, Specify appropriate side for trip lever
Water Closet- Wall-mounted, sensor operated	22 42 13	Kohler, American Standard or approved equal	Kohler 'Kingston' #K-4325-BA-0		1.28 GPF; provide carrier with rear anchor support for single applications; battery operated with solar charging
Toilet seats		Olsonite or approved equal	solid white plastic, open front, w/o cover		
Flush valves for Toilets	22 42 43	Sloan www.sloanvalves.com (requires 1" minimum water line and pressure)	Royal 111 (exposed manual); Royal 910 (hydraulic bush button), for 1.28 gpf		or approved equal; Exposed valve Hydraulic push button (valve is hidden in chase)
	22 42 43	Sloan	'Ecos' sensor flushometer #8111-1.6/1.1		or approved equal
Carrier for wall toilets & wall hung sinks	22 42 13	Smith	#0720 (for sinks, need to modify to suit application)		Different carriers for Block walls verses stud walls, and different for sinks and wall hung toilets.
Urinals					

Urinals	22 42 13	Kohler, American Standard or equal	American Standard Decorum, 0.125 gpf, EverClean surface 6042001EC.020; Kohler 'Bardon' #K-4904-ETBA-0 WITH Sloan 'Solis' sensor 8186-0.125 flush valve	WaterSense compliant with WaterSense flushometer	Elongated, top spud, ADA compliant, white .125 GPF or less
Flush valve urinal	22 42 13	Sloan	#186-1, 1 GPF, exposed, diaphragm type w/ escutcheon, screwdriver stop		or approved equal; battery-operated sensor
Carrier for urinal	22 42 13	Smith			
Sinks / Lavatories					
Kitchen/Break Room Sinks	22 42 16	Elkay, Kohler, American Standard or equal	Elkay Lustertone Stainless steel, single bowl undermount ADA sink, ELUHAD191655PD		or approved equal; 18 ga, 304 Grade stainless steel with satin finish. **NOTE:** Garbage disposals are not to be installed at breakroom or kitchen sinks.
Lavatory sinks-undermount	22 42 16	Kohler, American Standard or equal	K-2210 'Caxton',vitreous china with overflow		ADA compliant
Restroom sinks integral w/countertops	22 42 16	Solid surface integral with counters			Provide drip edge and back splash. ADA compliant
Wall-mount bathroom sink	22 42 16	Kohler or equal	K-2007		Provide undercounter pipe protection per ADA requirements
Service/Mop Sink	22 42 16	Kohler or equal	K-6710 corner basin, floor mount, enameled cast iron, with wall mount faucet		
Faucets (Polished Chrome finish- typ.)					
Hands-free lavatory faucet	22 42 39	American Standard	6055204.002 Innsbrook Selectronic Proximity or equal	CA low flow compliant, typ.	ADA compliant; CSA Certified
		Delta	Electronic Faucet 590T Series or equal		
		Chicago Faucets	Touchless Faucets 116.211.AB.1 or equal		ADA compliant; CEC compliant; vandal-proof, Ecast cast brass construction
Manual Lavatory Faucet		Chicago Faucets	#2200-4E39VPABCP, w/4" deck plate or equal		4" centers, 0.35 gpm, lever handle, vandal-proof ADA compliant, Cal Green compliant
Kitchen / Break Room Faucet		Chicago Faucets	Manual Sink Faucets 786-L9E72ABCP or equal		ADA compliant, vandal-proof, cast brass, 0.5 GPM, Cal Green compliant
Utility /Mop Sink Faucet		Elkay	LKB940C Service/Utility Wall Mount Faucet or equal		ADA compliant, solid brass construction. Chrome finish
Floor Drains					
Floor Drain w/square strainer & trap primer		J.R. Smith	#2005. nickel bronze or equal		size & features to suit application/location

Drinking Fountains					
Hi-Lo Drinking fountain with bottle filling station	22 47 13	Elkay or Equal	Elkay Model EZSTL8WSLK Bottle Filling Station		or approved equal; ADA compliant hi-lo drinking fountain with bottle-filling station, wall-mount, anti-microbial, hands-free, Laminar flow
Park Facility Plumbing Fixtures					
Sink for Park restrooms, wall mount		American Standard Kohler - Chesapeake Acorn Engineering or Equal	#0321.075 #1729 Dura-ware 1953		or approved equal; ADA compliant
Stainless steel lavatory sink		Acorn	Dura-Ware 1953		or approved equal ; 16 guage, type 304 stainless steel, seamless welded construction
Faucets		Chicago, Delta	408A-665-cw, or equal		(cold water only for parks) 0.5 gpm at 60 psi for public lavatory faucets; single-hole, vandal-proof metering push-handle, ADA compliant
		Chicago	Metering faucet 333-665PSHABCP		or approved equal
Drinking fountains		Haws, Elkay	ADA compliant		or approved equal
Built in Shower Units		Acorn Engineering or equal	Shower-Ware Zenith 500ADA		ADA compliant, 2.5 gpm at 80 psi
Stainless steel Urinals		Acorn	Dura-Ware 2158TS/S		or approved equal ; high-efficiency 1/8 to 1/2 GPF flush valve; mount at ADA compliant height
Stainless steel Toilets		Acorn	Dura-Ware R2105 S/S; wall-mount		or approved equal, 16 guage, type 304 stainless steel, seamless welded construction, mount at ADA compliant height
Drinking Fountains		Elkay or Equal			ADA compliant,
Detention Facility Plumbing Fixtures					
Combination Units	22 46 00	Acorn Engineering or equal	Model 1418 Model 1449 (ADA)		
Toilet- Wall-mount		Acorn Engineering or equal Kohler or equal	Model 1679 (Stainless) Model K-4325		
Flushometer		Sloan or equal	Model 8111-1.28		
Dual Basin Sink		Acorn Engineering or equal	Model 3712		
Lavatory- Wall Hung		Sloan or equal	Model SS3003		
Lavatory		Just Manufacturing or equal	Model SL-2133, S-1917		

Undermount Sink		Just Manufacturing or equal	Model US-13518		
Electronic Hand Faucet		Sloan or equal	Model ETF-880		
Lavatory Faucet		Just Manufacturing or equal	Model JGN-4		
Mop Sink		Just Manufacturing or equal	Model B-33213		
Service Sink (Mop) Faucet		Just Manufacturing or equal	Model JVB-1200		
Shower- Wall Mount		Acorn Engineering or equal Acorn Engineering or equal	Model 1743 Model 1741 (ADA)		
Drinking Fountain		Acorn Engineering or equal Filtrine	Model 1672 Model 90MOD-HL (ADA)		

GENERAL NOTES:
Per maintenace staff, no garabge disposals are to be installed at breakroom or kitchen sinks.

DIVISION 23	Heating, Ventilation and Air Conditioning (HVAC)				
DESCRIPTION	**SECTION**	**MANUFACTURER**	**PRODUCT / MODEL #**	**CalGreen/LEED Silver Standards**	**NOTES**
HVAC Systems	**23 00 00 - HVAC**			https://www.energystar.gov/buildings/facility-owners-and-managers?s=mega	Minimum 14 SEER rating when possible. No new R-22 refrigerant, ban in 2020.
Valves, Actuators	23 09 00 – Instrumentation & Control for HVAC 23 09 13.13 – Actuators & Operators	Belimo or approved equal	`		
Thermostats simple setbacks	23 09 00 – Instrumentation & Control for HVAC 23 09 13.23 – Sensors & Transmitters	White Rogers or approved equal	#1F 90-71	Energy Star Compliant	
Thermostats programmable multi-stage	23 09 00 – Instrumentation & Control for HVAC 23 09 13.23 – Sensors & Transmitters	White Rogers or approved equal	#1F97-1277; 7-day programmable thermostat	Energy Star Compliant	
EMS/BAS Building Automation	23 09 23 – Direct Digital Control System for HVAC	**Delta** **NO SUBSTITUTIONS**			
Pumps	23 21 23 – Hydronic Pumps	Bell & Gossett or approved equal			
Ventilation equipment	23 34 16 – Centrifugal HVAC Fans	Greenheck, Carnes or approved equal			
Fan Coils	23 36 13 – Constant-Air-Volume Units	Greenheck			
Boilers	23 52 00 – Heating Boilers	Patterson Kelly			Patterson-Kelly – HIGHLY PREFERRED Thermal efficiency of at least 84
Heating	23 54 16.13 – Gas Fired Furnaces	Carrier, York, or approved equal			Generic construction for non-priority parts. Annual fuel utilization efficiency (AFUE) rating of 95%, if possible. The County has a strong preference not to utilize Train due to the propiertary nature of the parts.
Unit heaters, ceiling mounted	23 55 33.16 – Gas Fired Unit Heaters	Modine, Resner, or approved equal	gas unit		

Air conditioning	23 62 00 – Packaged Compressor & Condenser Units	Carrier, York, or approved equal			Carrier is preferred by County maintenance staff (non-priority parts) The County has a strong preference not to utilize Trane due to the propiertary nature of the parts.
Chillers, Electric	23 64 00 – Packaged Water Chillers	Daikin, York or equal			
Chillers, Absorption	23 64 13.13 – Direct Fired Absorption Water Chillers	Thermax			
Ductless Mini-Split System/VRF		Daikin, Mitsubishi, or equal			
Cooling Towers	23 65 00 – Cooling Towers	Evapco			
Air compressors		Emglo, Speedaire, or equal			

DIVISION 25	INTEGRATED AUTOMATION				
DESCRIPTION	**SECTION**	**MANUFACTURER**	**PRODUCT / MODEL #**	**CalGreen/LEED Silver Standards**	**NOTES**
			`		

GENERAL NOTES:
Per project drawings and specifications

DIVISION 26	ELECTRICAL				
DESCRIPTION	**SECTION**	**MANUFACTURER**	**PRODUCT / MODEL #**	**CalGreen/LEED Silver Standards**	**NOTES**
Motion sensors	26 09 23 Lighting Control Devices	Watt Stopper, Leviton or Acuity	`		Facilities should include occupancy sensors per room/space type.
Daylighting Controls	26 09 23 Lighting Control Devices	Watt Stopper, Leviton or Acuity			
Electric Vehicle Charging Stations	26 27 00 Low Voltage Distribution Equipment	Juicebox, or equal	Juicebox Pro Commercial Level 2 Charging Station		Tamper-resistant, 18-foot cable with cable management system; Bollard-mounted enclosure rated for environmental conditions at installed location New construction projects are encouraged to provide more than the code required minimum number of EV Ready spaces.
Emergency generators	26 32 13 – Engine Generators	Cummins, Onan or approved equal			Diesel preferred, Natural Gas allowed when approved by County
Variable Speed Drives	Elec	ABB			5hp and larger VFD is recommended to meet power quality requirements as specified by Institute of Electrical and Electronics Engineers (IEEE) Standard 519-2014, Recommended Practices and Requirements for Harmonic Control in Electric Power Systems
Motors	Elec	Baldor, Dayton or equal	NEMA Premium Efficient if 1hp or larger. EC if <1 hp		NEMA Premium Efficient
Interior Lighting	26 51 00 – Interior Lighting		`		1. Interior lighting should be LED technology. 2. Products must be at least Standard Classified by the DesignLights Consortium, which can be found on the California Investor Owned Utility Lighitng Qualified Products List: http://caioulightingqpl.com/?WT.mc_id=Vanity_ledqpl." 3. Lithonia products preferred
Interior fluorescent	26 51 00 – Interior Lighting	Lithonia fixture or equal	High Performance T8 lamps with extra efficient ballasts		CEE HP Lamps & Ballasts Any fluorescent bulb should be replaced with LED as they burnout/reach expected useful life.
Interior-LED	26 51 00 – Interior Lighting	Lithonia fixture or equal		Use link in Notes to access the 'Qualified Products List' for determining eleigibility for energy efficiency incentives offered by PG&E. http://caioulightingqpl.com	1. Products must be at least Standard Classified by the DesignLights Consortium, which can be found on the California Investor Owned Utility Lighitng Qualified Products List: http://caioulightingqpl.com/?WT.mc_id=Vanity_ledqpl." 2. Lithonia products preferred 2. HPS and MH should be replaced with LED as

Emergency Lighting	26 52 00 – Emergency Lighting				1. Energy Star Compliant 2. LED 3. Products must be at least Standard Classified by the DesignLights Consortium, which can be found on the California Investor Owned Utility Lighitng Qualified Products List: http://caioulightingqpl.com/?WT.mc_id=Vanity_ledqpl." 4. Lithonia products preferred
Exit Signs	26 53 00 – Exit Signs	LED – Standard, Photoluminescent on special needs, pre-approved basis only	120 Vt , Battery Backup	Energy Star Compliant	1. No Nuclear (Tritium/ISOLITE) 2. LED 3. Products must be certified by the DesignLights Consortium, which can be found on the California Investor Owned Utility Lighitng Qualified Products List: http://caioulightingqpl.com/?WT.mc_id=Vanity_ledqpl." 4. Lithonia products preferred
Exterior Lighting	26 56 00 – Exterior Lighting		`	Use link in Notes to access the 'Qualified Products List' for determining eleigibility for energy efficiency incentives offered by PG&E	1. LED 2. Products must be certified by the DesignLights Consortium, which can be found on the California Investor Owned Utility Lighitng Qualified Products List: http://caioulightingqpl.com/?WT.mc_id=Vanity_ledqpl." 4. Lithonia products preferred 1. HPS and MH should be replaced with LED as they burnout/reach expected useful life.
Exterior High Pressure Sodium or Metal Halide	26 56 23 – Area Lighting				2. Products must be at least Standard Classified by the DesignLights Consortium, which can be found on the California Investor Owned Utility Lighitng Qualified Products List: http://caioulightingqpl.com/?WT.mc_id=Vanity_ledqpl."
GENERAL NOTES: Provide LED lighting, UNO					

DIVISION 27	COMMUNICATIONS				
DESCRIPTION	**SECTION**	**MANUFACTURER**	**PRODUCT / MODEL #**	**CalGreen/LEED Silver Standards**	**NOTES**
Data & Cabling Standards					Follow standards/recommendations in the latest version of the 'County of San Luis Obispo Standard for Data and Voice Cabling' by the Information Technology Department

GENERAL NOTES:
County PM to provide design consultant with latest County IT Data and Cabling Standards dcoument

DIVISION 28	**ELECTRONIC SAFETY & SECURITY**				
DESCRIPTION	**SECTION**	**MANUFACTURER**	**PRODUCT / MODEL #**	**CalGreen/LEED Silver Standards**	**NOTES**
Access Control System	28 10 00	**Genetec**	Per project drawings and specifications		**NO SUBSTITUTIONS** **Note:** Provide at new construction and major renovations only.
Fire Alarm	28 31 00 Fire Detection & Alarm	**Notifier**	`		**NO SUBSTITUTIONS**
Emergency phone	28 31 00 Fire Detection & Alarm	Allentael or equal	#GB5955SND-02-H4-SP-EY		for fire stations
Video Surveillance Security Systems		**Bosch**			**NO SUBSTITUTIONS**
GENERAL NOTES: Genetec ACS to be provided at new construction and major renovation projects only.					

DIVISION 31	**EARTHWORK**				
DESCRIPTION	**SECTION**	**MANUFACTURER**	**PRODUCT / MODEL #**	**CalGreen/LEED Silver Standards**	**NOTES**
Soil Prep for future Turf			`		3 c.y. Nitrogen Fortified Redwood shavings, 110lbs. Agricultural gypsum, 15 lbs. Iron sulphate, 25 obs. 16-6-8 slow release fertilizer.
Excavation					
Fill					
Slope protection					

GENERAL NOTES:
Per project drawings and specifications

DIVISION 32	**EXTERIOR IMPROVEMENTS**				
DESCRIPTION	**SECTION**	**MANUFACTURER**	**PRODUCT / MODEL #**	**CalGreen/LEED Silver Standards**	**NOTES**
Landscaping	32 90 00 Planting 32 91 00 Planting Preparation 32 92 00 Turf & Grasses 32 93 00 Plants	See County Parks Plant Selection Policy Dated November 17, 1992	`		Natives first when possible, See Appendix A for Invasive Plant Species restricted for use on County projects, See Appendix B for Native Plants recommended for Erosion Control & Appendix C for suggested Drought tolerant Plants for Direct Seeding.
Natural Areas		Endemic Species only			
Regional Parks, Special Facilities		Endemic Species, SLO County Natives or CA Natives, AND Drought Tolerant, Low Maintenance			
Community Parks, High Use Areas, Landscaped Areas.		Endemic Species, SLO County Natives, California Natives, Mediterranean Climate Species or Sunset Zone Recommended Species AND Drought Tolerant, Low Maintenance			
Riparian Areas, Wetlands		Endemic Species, SLO County Natives			
Planting of Trees & Shrubs	32 90 00 – Planting 32 93 33 – Shrubs 32 93 43 - Trees		`		
Irrigation	32 80 00 - Irrigation				
Control panel		Irritrol	MC series, remote ready		size for future expansion
Control panel- Parks		RainMaster	MC series, remote ready		size for future expansion
Backflow		Wilkins, Watts	Reduced pressure		or approved equal
Heads		Toro/ Hunter			head to head coverage
Electric Valves		Toro plastic	254/264/252		
Drip irrigation		Netafim, Hardie E02's products			or approved equal
Lateral lines		Schedule 200 PVC			
Main/pressure lines to 2" diameter		Schedule 40 PVC			
Pressure lines over 2" diameter		Schedule 315			

Filter Fabric for French Drains or under sand & safety surface areas		Amoco	Propex 4551 or equal		Non-biodegradable, non-woven
Playgrounds					
Playground sand		Washed Plaster Sand			Pure & uniform with no rock, debris or organic materials
Playground surfacing	32 18 16.13	Engineered Wood Fiber	Engineered wood fiber 8" min. at all areas of fall zones per plans		10" min. under base mat. Base Mat = blend of polypropylene screen. Top Surface = Engineered wood fiber Gmax: <200, Head Injury Criteria: < 1,0000, Flammability: Pass, Tensile Strength: 60psi, Water Permeability: 0.4gal/yd2/second
Playground Equipment	11 65 00 – Athletic & recreational Equipment 11 68 13 – Playground Equipment 11 68 16 – Play Structures	Per Project Specifications			ADA Compliant
Playground Installer					Certified Playground Safety Inspector -International Play Equipment Manufacturers Association (IPEMA) certified.
Site Furnishings	12 93 00 – Site Furnishings				
Picnic tables	12 93 43 – Site Seating & Tables	Iron Mountain Forge or Pilot Rock XT Series or approved Equal			
Benches	12 93 43.13 – Site Seating	Landscape Structures Iron Mountain Forge	Model 281		6' Surface Mounted vinyl coated steel bench w/back. Color by Owner. 12 ga. Slats or HRS perforated steel w/Tender Tuff coating. Fasteners – socketed & pinned tamperproof, stainless steel 6' Double Pedestal Stationary w/back – construction heart redwood back & seat
Individual BBQs		Pilot Rock or approved equal	A20B2		
Group BBQs		Pilot Rock or approved equal	FA30/11/TB		
Drinking fountains		HAWS or Elkay or equal			

Surfacing and Finishes					
Asphalt Paving	32 12 00 Flexible Paving 32 12 16 – Asphalt Paving				Section design per Soils Report Min grade base matl = Class II as defined in CalTrans Standards ½" max., med. graded, hot mix, Type A asphalt conc. for parking lots & roads. 3/8" max., hot mix, Type A asphalt concrete for pathways.
Roads & Travelled ways in Parking Lots	32 12 16 – Asphalt Paving				3" Asphalt, 8" Base (min.), Max 2" lifts.
Parking Areas & Walks over 6' wide	32 12 16 – Asphalt Paving				2" Asphalt, 6" Base (min.) Max 2" lifts.
Walks < 6' wide, not adjacent to roadway or parking	32 12 16 – Asphalt Paving				2" Asphalt, 4" Base (min.) Max 2" lifts.
Permeable Pavers					Per project drawings and specifcations
Concrete Paving	32 13 13 Concrete Paving			Consider reduction of heat island effect by specifying white concrete (higher SRI)	
Fencing	32 30 00 – Site Improvements 32 31 00 Fences & Gates				
Chain Link (General)	32 31 13 – Chain Link Fences & Gates				
Chain Link (Airports)	32 12 16 – Asphalt Paving				
Slurry Seal					
Bollards	26 56 29 – Walkway Lighting	galvanized steel w/ sleeve in concrete foundation			protect equipment from vehicles
Mulch	32 91 13.16 - Mulching				Composted, shredded hardwood bark, dark brown color.
Sod	32 92 23 - Sodding				Nursery grown grade, cultivated w/strong fibrous root system free of stones, burned or bare spots, containing no more than 10 weeds per 1,000 s.f.

GENERAL NOTES:

Provide low maintenance, drought tolerant landscaping with automated irrigation systems per the County's irrigation specifications and the County Park's Division plant lists. Landscaping shall be used effectively to enhance the appearance of the facility without blocking views and visibility for safety and security.
Irrigation shall be designed for head to head coverage. Backflow devices are required on irrigation and hose bibs.
Maintenance period for irrigation and landscaping is 90 days minimum.

DIVISION 33	**UTILITIES**				
DESCRIPTION	**SECTION**	**MANUFACTURER**	**PRODUCT / MODEL #**	**CalGreen/LEED Silver Standards**	**NOTES**
Underground Service Alert (USA)	1-800-227-2600		`		Contractor responsibility to confirm/verify underground utilities & comply w/policies of USA
Sanitary Sewers	33 30 00 - Sanitary Sewerage Utilities				Pipe slope min. 2%, Manhole spacings @ 300 l.f. max., Pressure test to 5 P.S.I.G. w/air for 15 mins, ½ lb. max. pressure drop.
Sewer piping	33 30 00 – Sanitary Utility Sewerage Piping	Vitrified clay w/bell & spigot joints, Concrete lined C.I. or PVC: ASTM D3034, SDR 35 w/elastomeric gasketed joints conforming to ASTM D3212			
Storm Drains	33 40 00 Storm Drainage Utilities	8” min dia. pipes, Flow at 90% full, w/o surcharge			Flow velocity = 3.0 fps min. when flowing ½ full. Design piping systems to 10 yr. storm frequency. Design drainage for 25 yr. storm frequency.
Surface Drainage					Positive surface drainage away from blgs @ 2.5% min to a collector or paved surface. Do not drain across walks & paths (ADA) 1.5% min for paved gutters & small paved ditches, 2% for area drainage of paved surfaces, 2.5% for small unlined ditches & unpaved yard areas.
Cut & Fill slopes			`		< or equal to 2:1, unless it can be demonstrated that a steeper slope will not result n increased erosion.
Drain Inlets & Catch Basins	33 44 00 – Storm Utility Water Drains (Trences, Catchbasins)	24” min. side to allow cleanout. Provide ADA compliant grates in walking areas.			1’ deep sediment trap in bottom

Piping	33 46 16 – Subdrainage Piping	Corrugated metal pipe (CMP): acceptable but not desirable, review w/coord. Reinforced concrete pipe (RCP): >=12” dia. PVC drain pipe: Min grade=ASTM, SDR26 for <12” dia. incl. perf. piping behind ret. walls Gravity flow piping serving manholes: RCP, CI soil pipe or PVC min. grade=ASTM D3034, SDR26 Pressurized or pumped piping serving manholes: Schedule 40 min. PVC w/solvent weld joints			
GENERAL NOTES: Verify requirements with project drawings and specifcations					

APPENDIX A- No-Substitution Product List

1	Division 08	Door Hardware- **Schlage**
2	Division 23	Building Automation- HVAC Controls- **Delta**
3	Division 28	Fire Alarm- **Notifier**
4	Division 28	Video Surveillance Security System- **Bosch**
5	Division 28	Access Control System - **Genetec**

Refer to Division sections for additional information

APPENDIX D

COUNTY OF SAN LUIS OBISPO ITD WIRING STANDARDS

PAGE LEFT BLANK INTENTIONALLY



County of San Luis Obispo
Standard for Data and Voice Cabling

Version 4.0
September 2021

Information Technology Department
Network Team

Table of Contents

1. PURPOSE OF THE STANDARD 2
2. RESPONSIBILITIES 2
3. DETAILS OF CABLING STANDARD 2
3.1. General Standards 2
3.2. Horizontal Cabling 5
3.3. Telecommunication Closet (IDF/MDF) 6
3.4. Telecommunications Cabling Rack Layout Provided for reference **..... 9**
3.5. Cabling for IP-Based Video Cameras 12
3.6. Data & Voice Wall Outlets 12
3.7. SRST (Survivable Remote Site Telephony) 13
3.8. VoIP (Voice over Internet Protocol) 14
3.9. Fiber Optic Building Backbone Cable 16
3.10. Underground and Aerial Fiber Installation Not in scope of project **..... 16**
3.11. Fiber Optic Terminations Not in scope of project **..... 18**
3.12. Wireless Access Point Cabling Requirement 19
4. LABELING AND LOCATING 20
4.1. Data Cable Labeling and Identification 20
4.2. Optical Fiber Labeling and Locating Not in scope of project **..... 21**
5. TESTING OF CABLING 21
5.1. General Testing 21
5.2. Fiber Optic Cables Not in scope of project **..... 22**
5.3. Data Horizontal Cabling System (Category 6a) 23
6. GROUNDING 23
6.1. Master Ground Bar 23
6.2. Equipment Grounding 28

1. PURPOSE OF THE STANDARD

This document defines the structured communications cabling system standards that enable the transmission of voice and data at County of San Luis Obispo facilities. This cabling standard provides a document to be used with construction of all voice and data cabling; either new projects, upgrades, or maintenance undertaken by the County of San Luis Obispo. The goal is to ensure that the County is provided with a cabling solution that optimize value by minimizing down time and maintenance requirements, while providing a scalable solution for migration and expansion in the future.

2. RESPONSIBILITIES

The Information Technology Department (IT) is responsible for the maintenance and management of all data and voice communication cabling at each County owned and leased facility.

This responsibility includes:

- Management of the County's Network Infrastructure.
- Coordination of all cable installation, maintenance, and plant records.
- Ensure compliance for new cable installations at County owned and leased facilities.

IT will work with the project coordinator to ensure appropriate data and voice cabling for each new project, upgrade, or maintenance effort.

3. DETAILS OF CABLING STANDARD

3.1. General Standards

3.1.1. New Industry Standard Materials.

3.1.2. All parts will be those listed below or IT-approved equivalents.

3.1.3. Materials and equipment shall be installed and tested as specified in the applicable publications, standards, rulings, and determinations of the following:

3.1.3.1. The ANSI/TIA-568.2-D

This Standard specifies the mechanical and transmission requirements of category 3, 5e, 6, 6A, and 8 balanced twisted-pair copper cabling and components. 28 AWG patch cords, which have become popular at high-density patching areas due to their smaller diameter that helps reduce congestion, improves airflow, and enables a decreased bend radius, are also now recognized in a normative annex to TIA-568.2-D.

Also includes Guidelines for Supporting Power Delivery Over Balanced Twisted-Pair Cabling. This provides recommendations for cables that will support DC power, which is important in terms of supporting 4-pair PoE. DC resistance unbalance testing within and between pairs is also now specified in 568.2-D.

3.1.3.2. The ISO/IEC 11801

The ISO/EIC is the international standard for information technology systems. As the name suggests, it standardizes and regulates cabling systems within an IT network. The ISO standards are reviewed every five years, with the last major review and revision taking place in 2017.

Section 11801 deals with the general standards for cabling in a commercial building. The section covers data, voice, and video services for cabling, along with specifications for both copper cabling and fiber-optic cabling.

3.1.3.3. ANSI/TIA/EIA 569-A

Commercial building Standard for Telecommunication Pathways and Spaces / Cable Trays and Wireways.

3.1.3.4. ANSI-TIA-EIA-569-B

Commercial Building Standard for Telecommunications Pathways and Spaces standardizes specific pathway and space design and construction practices in support of telecommunications media and equipment within buildings.

3.1.3.5. ANSI/TIA/EIA 606-A

Standard specifies administration for a generic telecommunications cabling system that will support a multi-product, multi-vendor environment.

3.1.3.6. ANSI/EIA/TIA-607

Standard defines a telecommunications grounding and bonding system and the interconnections to the building electrical grounding system.

3.1.3.7. ANSI/TIA-526-7

Measurement of Optical Power Loss of Installed Single-mode Fiber Cable Plant.

3.1.3.8. FCC–Federal Communications Commission

3.1.3.9. IEEE–Institute of Electrical and Electronic Engineers

3.1.3.10. NEMA–National Electrical Manufacturers Association

3.1.3.11. UL–Underwriters Laboratories

3.1.3.12. ANSI T1.313-2003

Electrical Protection for Telecommunications Central Offices and Similar Type Facilities.

3.1.3.13. ANSI T1.333-2001

Grounding and Bonding of Telecommunications Equipment.

3.1.3.14. ANSI T1.334-2002

Electrical Protection of Communications Towers and Associated Structures.

3.1.3.15. IEEE Std 1100-2005

Recommended design, installation, and maintenance practices for electrical power and grounding (including both power-related and signal-related noise control) of sensitive

electronic processing equipment used in commercial and industrial applications are presented.

3.1.3.16. NFPA 70

National Electric Code.

3.1.4. All work shall be continuously coordinated with the County's Project Coordinator, Maintenance Staff, and/or Information Technology Staff.

3.2. Horizontal Cabling

3.2.1. The horizontal cable used for the distribution of data and voice shall be 4 pair, 24 AWG, Category 6A, plenum rated, LANmark-10G2 Category 6A UTP Plenum Rated Part Number 10130484 (Blue) or IT-approved equivalent.

3.2.2. Where horizontal pathways are not noted as plenum space, riser rated (CM) cable may be utilized. LANmark-10G2 Augmented Category 6a Riser Part Number 10137700 (Blue) or approved equivalent.

3.2.3. All cable runs must not exceed 90m/297ft.

3.2.4. Horizontal cabling will be run in ceiling space unless approved by the project coordinator.

3.2.5. Cabling must be appropriately supported along the entire path, using J-hooks, cable trays, or conduit and must not be attached to any other building wiring or conduit; and installed with sufficient bending radius so as not to kink, shear, or damage the cable.

3.2.6. Cable management straps shall be D-Ring style, hook & loop closure.

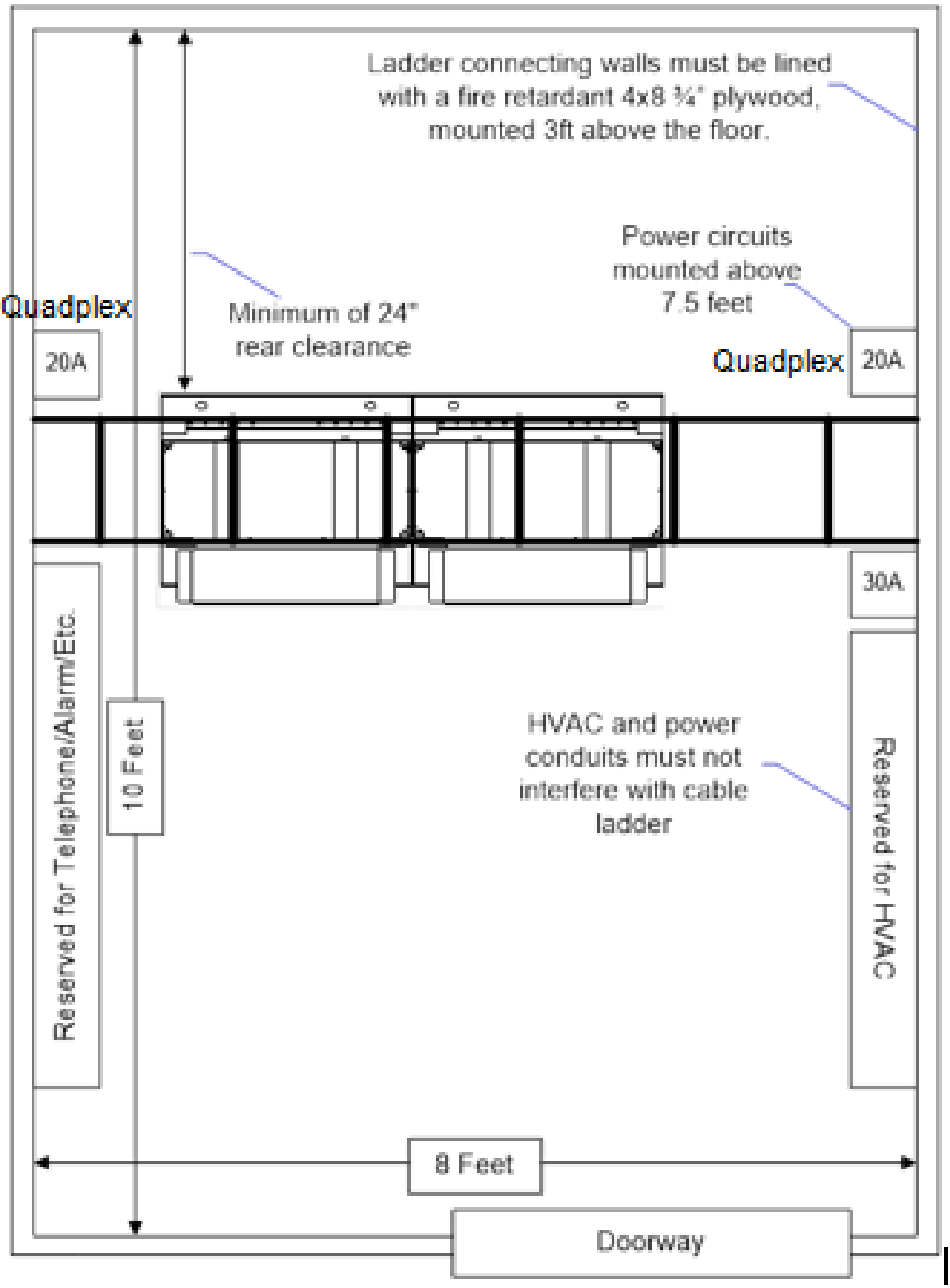
3.2.7. Horizontal Cabling Standard Hardware. Parts other than those listed in this section shall not be used without prior County approval.

- (OR-70700107) – Ortronics D-Ring Cable Management Straps.
- (10130484) – Berk-Tek LanMark 10-G2 plenum rated CAT 6A cable.
- (10137700) – Berk-Tek LanMark 10-G2 riser rated CAT 6A cable.
- (10032090) - Berk-Tek LANMark 6, CAT6 Cable, Plenum, Yellow (CCTV ONLY).

3.3. Telecommunication Closet (IDF/MDF)

The telecommunication closet, sometimes referred as the Intermediate Distribution Facility (IDF), aggregates date/voice cabling from wall outlets to a single location. In larger buildings, multiple IDFs are connected to a Main Distribution Facility (MDF) using fiber optic cabling. For smaller, single floor buildings there may be only one telecommunications closet making it the MDF. Telecommunication closets should not be used to house server/computer equipment. A standard IDF/MDF is shown in Figure 1.

Figure 1: Typical SLO County IDF Design



3.3.1. Each floor in building with multiple floors should have at least one IDF.

3.3.2. For new construction the IDF and/or MDF must be a minimum of 8’ X 10’ and 8’ in height. For a building being remodeled the IDF/MDF should be 8’ x 10’ but existing building constraints may not make that possible, so IT-Network will work with the appropriate staff to find an acceptable solution.

3.3.3. IDF walls must be covered with fire resistant ¾” plywood as appropriate to accommodate mounting of equipment, racks, ladders, power, etc. A minimum of two 4’ x 8’ backboards will be installed in each IDF.

3.3.4. Must have minimum two (2) Quadplex independent 20A 120V on separate circuit breakers, on opposite sides of the IDF, and one (1) 30A 120V electrical circuits.

3.3.5. Power circuits must be wall mounted 7.5 feet above the flooring.

3.3.6. Wall mounted power conduit and HVAC units must not interfere with cable ladder wall mounting.

3.3.7. Racks must be anchored to the overhead cable ladder and the floor.

3.3.8. The cable ladder will attach at a minimum of two points to the walls.

3.3.9. Wood or concrete flooring must be epoxy painted. Due to static electricity caused by carpeting carpeted flooring will not be used.

3.3.10. Ceilings shall be “hard” with appropriate access hatches.

3.3.11. All racks shall be installed side by side.

3.3.12. Maximum of 432 copper cable terminations (144 drops for three cables each) per rack, additional cabling will require a second rack. Figure 3 below shows the rack layout.

3.3.13. A suitable telecommunications ground for equipment as required per ANSI/TIA/EIA-607 (telecommunications grounding), IEEE Emerald Green book and NEC requirements will be provided in each IDF. All cable tray, ladders, equipment racks IDF/MDF shall be appropriately grounded/bonded to the telecommunications grounding.

3.3.14. IDF Standard Hardware. Parts other than those listed in this section shall not be used without prior County approval.

3.3.14.1. Telecommunications Rack

- (OR-MM6706) – Ortronics Mighty Mo cable management rack.
- (OR-MM107SVR)– Ortronics Mighty Mo server rack (four-post).
- (OR-MM6CRB06) – Ortronics cable runway mounting bracket.
- (DA-500)- Drop-In Anchor, Anchor Size 1/2-13, Drill Size 5/8 in, Length 2”- Concrete Floor.
- (40604-001) – Chatsworth concrete floor anchor kit.
- (40607-001) – Chatsworth wood floor anchor kit.

3.3.14.2. Cable Management

- (OR-60400129) – Ortronics feed-through management panels.
- (OR-60400017) – Ortronics cable management rings.

3.3.14.3. Patch Panel

- (OR-PHD610U24) – Ortronics clarity 24-port T568B.2-10. Depending on the nature of the cabling, higher density patch panels may be used with prior County approval.

3.3.14.4. Blanks

- (OR-401004788) – Ortronics 1RU blank filler panel.
- (OR-401004789) – Ortronics 2RU blank filler panel.
- (OR-401004791) – Ortronics 4RU blank filler panel.

3.3.14.5. Cable Runway

- (10250-712) – Chatsworth black universal 12”.
- (11308-001) – Chatsworth runway J-bolt kit.
- (11420-701) – Chatsworth runway wall mount.
- (11301-701) – Chatsworth runway splice kit.
- (10488-701) – Chatsworth runway junction kit.
-

3.4. Telecommunications Cabling Rack Layout

3.4.1. The typical data cabling rack layout is shown in Figure 2.

Figure 2: SLO County Cabling Rack Layout
A-B-C System Rack Standard

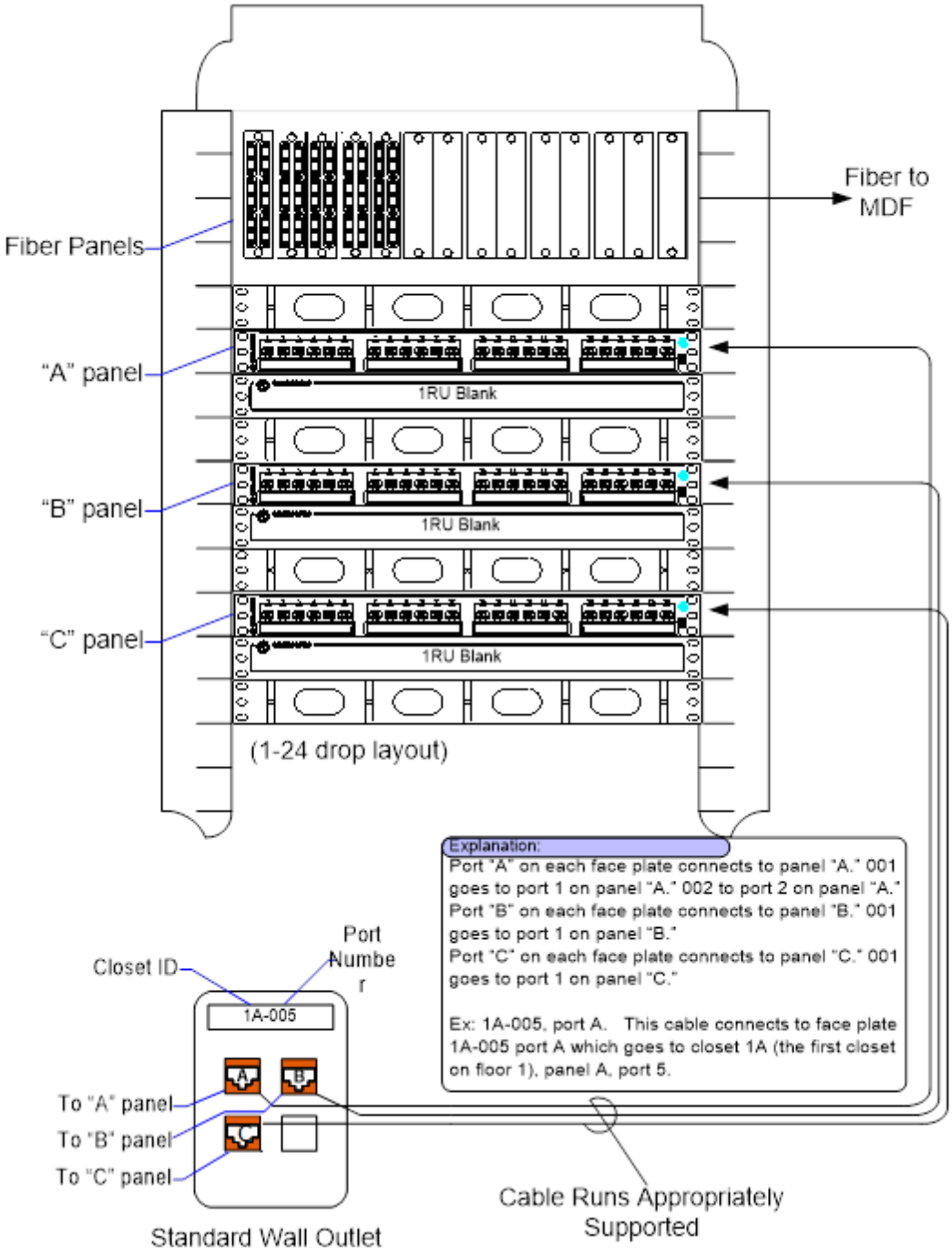
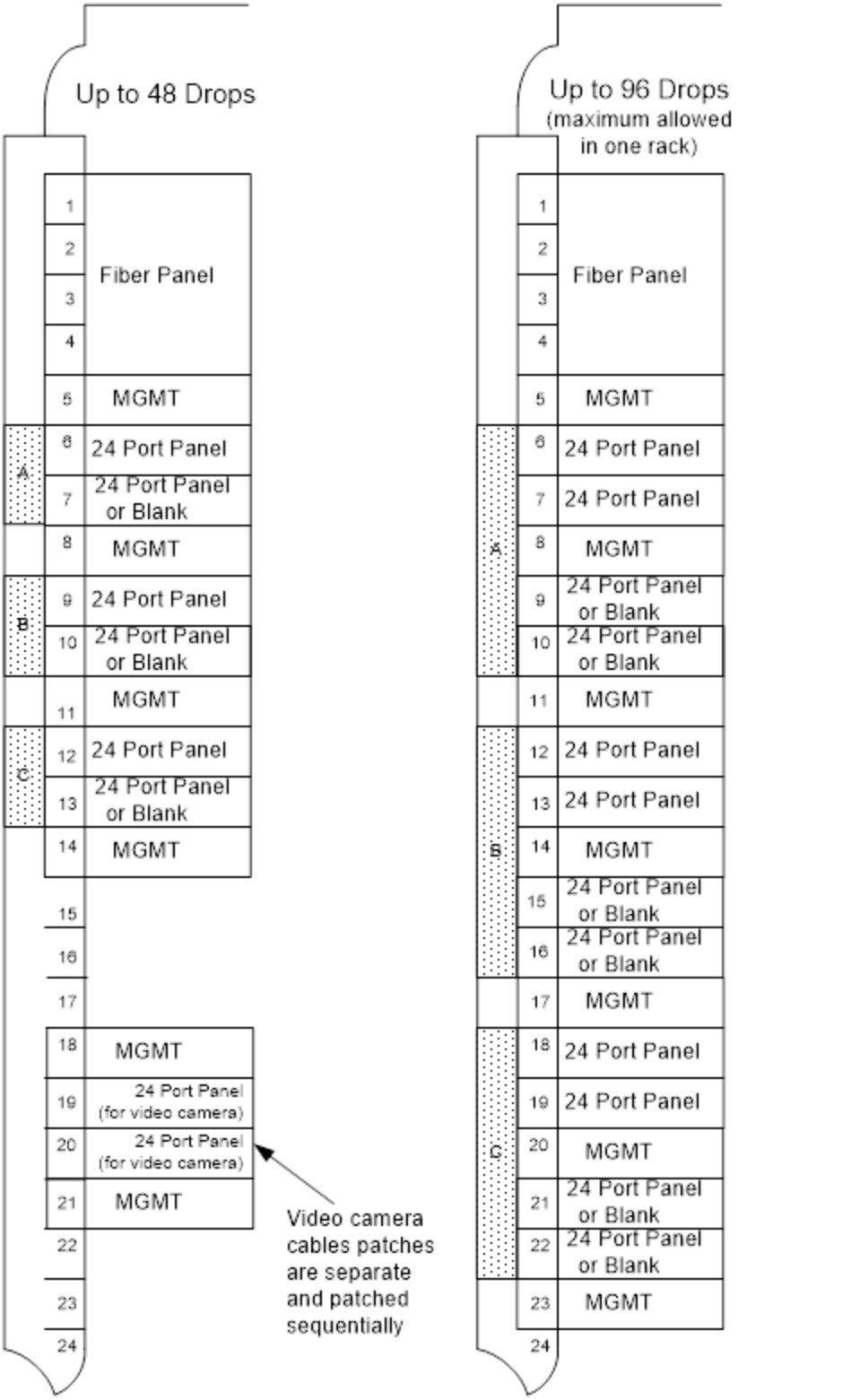


Figure 3: Typical SLO County Cabling Rack Layout
for Different Number of 3 Cable Drops using
Standard A-B-C Rack Layout and Sequential Video Cable Layout



3.5. Cabling for IP-Based Video Cameras

3.5.1. Only one CAT 6 cable will be run to each IP based camera.

3.5.2. Cables for each IP based camera will run to patch panels that are separate from the A, B, C system. They will be patched on separate 24-port patch panels sequentially located below the data cable patch panels (see Figure 3 above).

3.5.3. Standard Hardware. Parts other than those listed in this section shall not be used without prior County approval.

3.5.3.1. CCTV installations shall use a BERK-TEK UTP Cable, Plenum, 24 AWG, Cat 6, 4-Pair, 2-Conductor, 0.22" Cable Diameter, 1000’ Length, Bare Copper Conductor, FEP Insulation, Flame Retardant PVC Jacket, Yellow, Indoor (Part number 10136749) or its equivalent.

3.5.3.2. Indoor locations for IP Cameras shall use a BERK-TEK LANmark-6™ Plenum 4-Pair UTP Cable (Yellow) (Part Number 10032090) or its equivalent.

3.5.3.3. Outdoor locations for IP Cameras shall use a BERK-TEK UTP Cable, Non-Plenum, 23 AWG, Solid, CAT 6, 4-Pair, 2-Conductor, 0.25 in Cable Diameter, 1000’ Length, Bare Copper Conductor, UV Resistant Polyethylene Jacket, Black, Outdoor (Part number 10139885), or its equivalent.

3.5.4. All building penetrations must be sealed. All cables must be supported by a screw zip or J-hook.

3.6. Data & Voice Wall Outlets

3.6.1. Wall outlets shall have 4 ports. A layout is shown in Figure 2 and Figure 4. Data ports #1, #2 and #3 shall be orange. Port #4 shall be a blank.

3.6.2. Should the building require a voice wall outlet, the copper line coming from outside shall be terminated to a block on the backboard of the network room or Minimum Point of Entry (MPOE). Then from the block, a copper cable is used to terminate on Data Port #3 of the corresponding location. As shown in Figure #4 below.

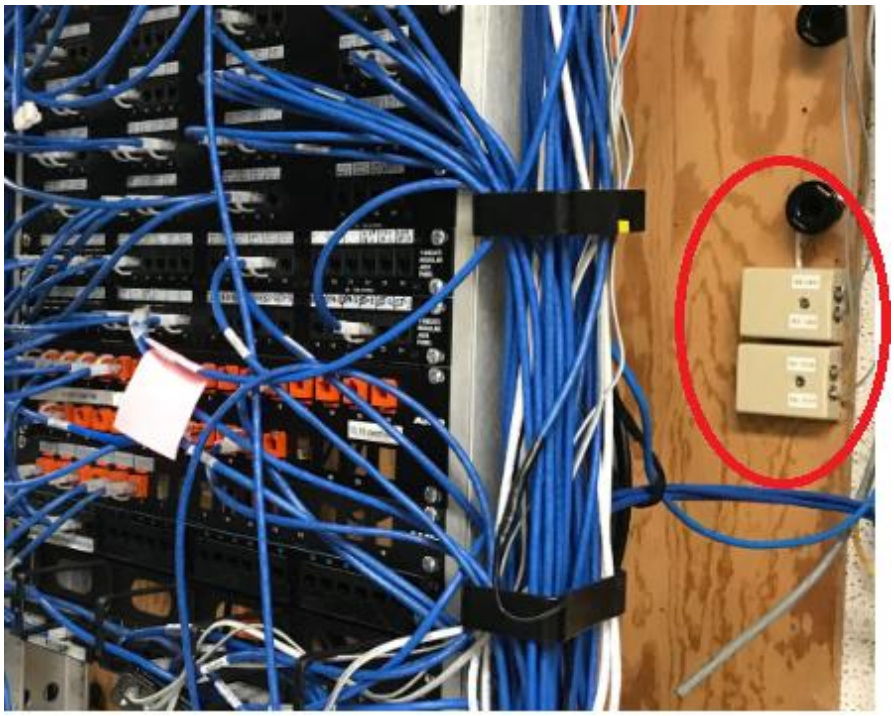


Figure #4

3.6.3. Wall Outlet Standard Hardware. Parts other than those listed in this section shall not be used without prior County approval.

- (OR-40300546) – Ortronics 4 port faceplate or (OR-40400055) Ortronics 4 port surface mount box.
- (OR-TJ610-43) – Ortronics Orange modular insert.
- (OR-42100002) – Ortronics modular blank (package of ten).
- (300-66FF-WH) - White Phone Surface Mount Jack, RJ11/RJ12, Data/Voice.

3.7. SRST (Survivable Remote Site Telephony)

A Modular Telephone Surface Mount Jack shall be terminated to a back board for every copper line as shown below. If back board is not available, the jack can be mounted to a rack closest to the SRST Router as shown in Figure #5.



Figure #5

3.8. VoIP (Voice over Internet Protocol)

Each location requiring the installation of a VoIP phone or computer requires a standard data and voice wall outlet. The Cisco VoIP Phone should use the black cable that came from the factory to connect to a computer. If the computer is too far from the phone, then a blue CAT6 ethernet cable can be used to connect from computer to the phone. See Figure #6 and Figure #7 below.

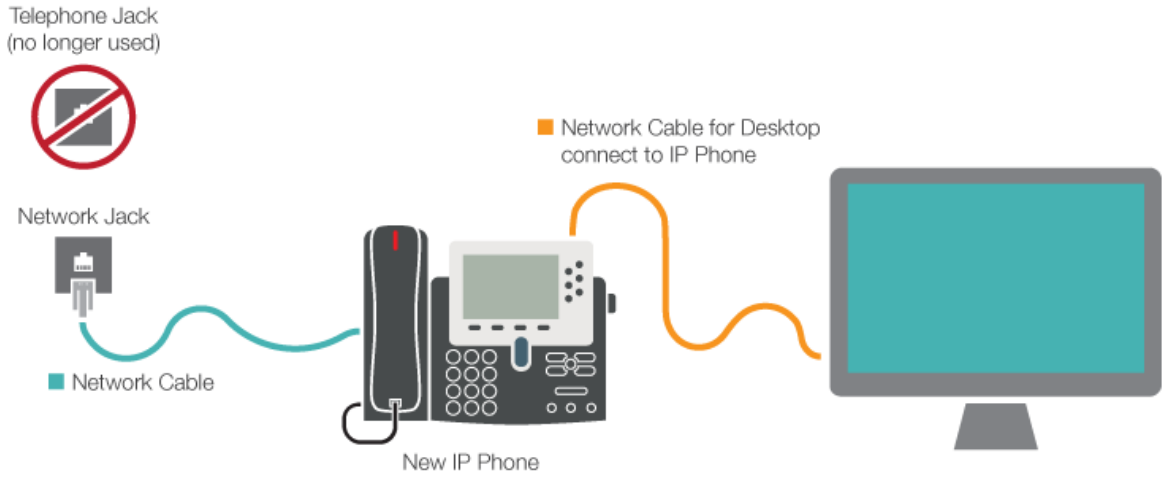


Figure # 6



1	DC adaptor port (DC48V).	5	Access port (10/100/1000 PC) connection.
2	AC-to-DC power supply (optional).	6	Auxiliary port.
3	AC power wall plug (optional).	7	Handset connection.
4	Network port (10/100/1000 SW) connection. IEEE 802.3at power enabled.	8	Analog headset connection (optional).

Figure #7

3.9. Fiber Optic Building Backbone Cable

3.9.1. Fiber optic cabling used to connect IDFs to the MDF, Building to Building will be 24 strands of single-mode fiber optic cable, black jacket, using Berk-Tek Adventum plenum rated cable or approved equivalent.

3.9.2. Where pathways are not noted as plenum space, riser rated cable may be used.

3.9.3. The single-mode fiber must be 9/125micron OFNR terminated with LC pigtails.

3.9.4. All fiber optic building backbone cabling will be run inside using plenum rated 1 ¼" orange inner duct with a 900 lb pull tape. Couplings shall not be used to join shorter sections of inner duct in the middle of a run.

3.9.5. Fiber termination shall be with pigtails that plug into adapter panels within the fiber patch cabinet. All pigtails will be fusion spliced. All splices shall utilize appropriate splice trays and shall use heat shrink sleeves or splice protection covers.

3.9.6. Fiber Optic Backbone Standard Hardware. Parts other than those listed in this section shall not be used without prior County approval.

- (OR-FC02U-C) – Ortronics rack mount (2U) fiber patch and splice cabinets for up to 36 fibers. For use in the IDF.
- (OR-FC04U-C) – Ortronics rack mount (4U) fiber patch and splice cabinets for up to 144 fibers. For use in the MDF.
- (OR-OFP-LCD12AC) – Ortronics LC duplex (12-fibers) single mode adapter panel (blue).
- (OR-P3TF4ZRGZZZ002M) – Ortronics LC connector pigtail, 12 fiber, 50micron MMF, 2 meters.
- (OR-P1TC4ZRSZZZ002M) – Ortronics LC connector pigtail, 12 fiber, OFNR SMF, 2 meters.
- (OR-FST2-F012) – Ortronics fusion splice tray for 12 fibers.
- (OR-20500043) – Ortronics heat shrink sleeves pkg 50.

3.10. Underground and Aerial Fiber Installation

This section address fiber optic cables that reside underground in conduit installed by trenching or directional bore, as well as aerial cabling installed on utility poles. Fiber counts to be determined in the project scope.

3.10.1. Single Mode Fiber Optic Cable Specifications

3.10.1.1. Cable must meet Corning SMF-28 performance specifications or better.

3.10.1.2. Cable jacket color shall be black with white print labeling.

3.10.1.3. Cable must be pulled by hand with no mechanical assistance. Alternative means of pulling fiber must be approved by the County prior to installation.

3.10.1.4. Underground and Aerial over-lashed cable shall be Corning Altos Loose Tube Gel-Free, p/n xxxEW4-T4100D20.

3.10.2. Conduit Specifications

3.10.2.1. Conduit minimum is 2” HDPE, color orange, SDR 11, 10 or less.

3.10.2.2. Conduit depth shall be a minimum 24”.

3.10.2.3. Conduit shall be joined in accordance with Manufacturer’s recommendations, and all joints shall be watertight.

3.10.2.4. All conduits shall be cleaned and tested prior to cable installation.

3.10.2.5. Conduits entering pull boxes shall be sealed appropriately after cable installation is complete.

3.10.2.6. The conduit shall gradually and smoothly slope up to the elevation of the pull box entrance. Bends, if required shall be no more than 25 degrees.

3.10.3. Pull Box Specifications

3.10.3.1. Pull boxes will be used to facilitate the pulling of underground cable in ducts, as well as splice enclosure and slack storage.

3.10.3.2. Boxes shall be installed following Manufacturer Recommendations.

3.10.3.3. Boxes shall be concrete Old Castle (Christy) P48, p/n N48PBOX with 2-piece concrete lid, p/n N48D2.

3.10.3.4. Lid shall be marked “CoSLO Fiber Optic”.

3.10.3.5. Boxes shall rest on 6” of compacted gravel as a base. An additional 3” of “Drain Rock” must added after the box is set.

3.10.3.6. Boxes shall be leveled and flush to grade.

3.10.3.7. Maximum distance between pull boxes is 1500’.

3.10.3.8. All cable slack within any pull box shall be a minimum of 60’ of coiled cable.

3.10.4. Splicing and Enclosures

3.10.4.1. All fibers shall be fusion spliced.

3.10.4.2. Splice enclosures shall be located within pull boxes, installed flush to grade.

3.10.4.3. Underground splice locations shall have a minimum of 60’ of coiled cable for slack.

3.10.4.4. Aerial splice enclosures must be attached appropriately to messenger with a minimum of 100’ aerially managed slack.

3.10.4.5. Splice enclosures shall be chosen from the following list, enclosure type and trays shall be sized appropriately to project scope.

- Preformed Coyote Runt.
- Preformed Coyote Pup.
- Preformed 6.5” Coyote.
- Preformed 8.5” Coyote.

3.11. Fiber Optic Terminations

3.11.1. All fiber optic strands shall be terminated with LC pigtails.

3.11.2. All fiber optic cables will be landed within a 19” rack mountable fiber splice cabinet. See section 3.9 for details on fiber optic cabling installed within buildings.

3.11.3. Fiber termination shall be with pigtails that plug into adapter panels within the fiber splice cabinet. All pigtails will be fusion spliced. All splices shall utilize appropriate splice trays and shall use heat shrink sleeves or splice protection covers.

3.11.4. Termination Standard Hardware. Parts other than those listed in this section shall not be used without prior County approval.

- (OR-FC04U-C) – Ortronics rack mount (4RU) fiber patch and splice cabinets for up to 144 fibers.
- (OR-OFP-LCD12AC) – Ortronics LC duplex (12-fibers) single mode adapters (blue).
- (OR-626TC4ZR-RZ002M) – Ortronics connector pigtail, 12 fiber, OFNR SMF, 2 meters.
- (OR-FST2-F012) – Ortronics fusion splice tray for 12 fibers.
- (OR-20500043) – Ortronics heat shrink sleeves pkg 50.

3.12. Wireless Access Point Cabling Requirement

3.12.1. Any new Wireless Access Point Cabling in new building construction will require two blue category 6a cables to be run from the mounting location point back to the MDF/IDF for the area. (Reference section 3.3)

3.12.1.1. Two cables will be required for each wireless access point in preparation for future Wi-Fi technologies such as Wi-Fi 7.

3.12.2. Termination Standard Hardware. Parts other than those listed in this section shall not be used without prior County approval.

3.12.2.1. (KSSMB2) – ORTRONICS Surface Mount Box, 2.59" W x 1.14" D x 2.27" H, 2-Port, High Impact Thermoplastic ABS 94V-0, Fog White, Plastic Keystone Jack Surface Box.

3.12.2.2. (KS6A-36) – ORTRONICS Category 6 Keystone Jack, Blue.

3.12.2.3. (10130484) – Berk-Tek LanMark 10-G2 plenum rated CAT 6A cable (Blue).

4. LABELING AND LOCATING

4.1. Data Cable Labeling and Identification

4.1.1. All patch panel and wall outlet (station) designators shall be laser-printed black print on white background, no hand printing. The font shall be approximately 1/8 inches in height, block characters and clearly legible.

4.1.2. All labels shall be securely attached to faceplates and patch panels.

4.1.3. All copper and fiber optic cables shall be clearly labeled at both ends.

4.1.4. All patch panel and wall outlets will be labeled in sequential order as follows:

All IDFs and MDFs within a building shall follow a format of fs, where:
f = numeric character(s) identifying the building floor occupied by the IDF or MDF and s = alpha character(s) uniquely identifying the IDF/MDF on floor f.
Example: 1A is the first IDF on the first floor.
Example: 3B is the second IDF on the third floor.

All wall outlets (stations) shall follow a format of fs-n, where:
fs = IDF/MDF designation described above; and n = three numeric characters designating the port on the patch panels on which each of the three cables are terminated in the IDF/MDF.
Example: 1A-011 is port 11 on patch panels A, B, C in the first (or A) IDF/MDF on the first floor.
Example: 2C-27 is port 27 on patch panels A, B, C in the third (or C) IDF/MDF on the second floor. See Example in Figure 8: Standard Wall Outlet below.

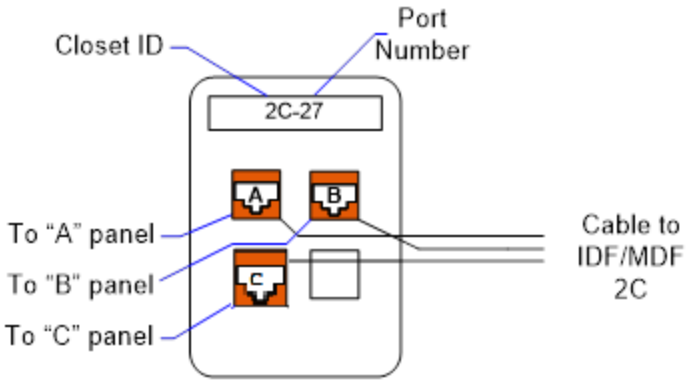


Figure #8

4.1.5. Labeling Standard Hardware. Parts other than those listed in this section shall not be used without prior County approval.

- (OR-70700408) – Ortronics patch panel designator, white.
- (OR-70700411) – Ortronics wall outlet designator, white.

4.2. Optical Fiber Labeling and Locating

4.2.1. Conduits shall have an appropriately sized pull rope installed with integrated locator wire, such as Neptco Detectable Muletape with foot indicator.

4.2.2. Where applicable, buried pull boxes shall have an electronic ball locator installed, such as 3M™ iD Ball Marker 1421-XR/iD for Telecommunications industry.

4.2.3. Coiled cable in pull boxes and buildings will be tagged “CoSLO Fiber Optic – 805-788-2800”.

4.2.4. Aerial cable will be tagged at each utility pole attachment “CoSLO Fiber Optic – 805-788-2800”.

4.2.5. Cable terminations will be labeled with cable number, location, and fiber number.

5. TESTING OF CABLING

5.1. General Testing

5.1.1. All testing shall be performed after all telecommunication outlets have been secured and all fibers have been terminated in their final

position and properly labeled. The building must be operational (i.e., building lighting and power must be energized during testing).

5.1.2. All original test results will be submitted in soft copy using the test equipment's native file format to the County's project coordinator – see 3.1.4.

5.1.3. Submit one or more binders containing the following documentation and test results for all cables to the County of San Luis Obispo, General Services Agency-Information Technology department. Binders shall be indexed with tabs denoting Main Distribution Facility (MDF) and Intermediate Distribution Facilities (IDF). All original test results shall have been uploaded directly from the cable test equipment and printed directly. Testing and documentation shall include, but not be limited to:

5.2. Fiber Optic Cables

5.2.1. Using an Optical Power Meter with memory and adapter measure and record end-to-end insertion loss for all installed cables, including: all connectors, cables, and patch cords. All fiber optic insertion loss (attenuation). The total loss shall be measured and reported for each cable at the appropriate operating wave lengths: 1310 nm and 1550 nm for single mode fiber. Optical attenuation tests shall be conducted in both directions, end-to-end. The length of each fiber shall also be documented.

5.2.2. Using an Optical Time Domain Reflectometer (OTDR), all single mode cables shall be tested and record all fiber optic insertion loss (attenuation) and attenuation coefficient at the appropriate operating wave lengths: 1310 nm and 1550 nm for single mode. The length of each fiber shall be documented as well as the distance to all splices and connections.

5.2.3. All cables additionally certified according to the (ANSI/TIA 568.3-D) standard

5.2.3.1. Single mode:

- 100GBASE-LR - links <=10KM (IEEE 802.3cu).
- 100GBASE-ER4 - links <=40KM (IEEE 802.3ba).
- 100GBASE-ZR - links >40KM (IEEE 802.3ct).

5.3. Data Horizontal Cabling System (Category 6a)

5.3.1. All horizontal data (Category 6A) permanent link testing shall be performed using a Level IV accuracy cable tester, updated with the most recent firmware, and using the correct link adapters. And record:

- Length.
- Line map continuity.
- Pass or Fail on a CAT 6A connectivity test.

5.3.2. Tests shall be performed on finished cables (patch cords, patch panel, horizontal cable, station connectors) end to end.

6. GROUNDING

6.1. Master Ground Bar

The purpose of the master ground bus bar (MGB) (see Figure # 9) is to provide a convenient internal grounding (earthing) termination point for the communication system and to serve as a dedicated extension of the site's common grounding electrode system. The MGB functions as the primary internal earth reference point for all equipment ground bus conductors, grounding conductors and communications equipment within the facility. Typically, there should only be a single MGB per building (ANSI-J-STD-607-A- 2002 and ANSI T1.334-2002).

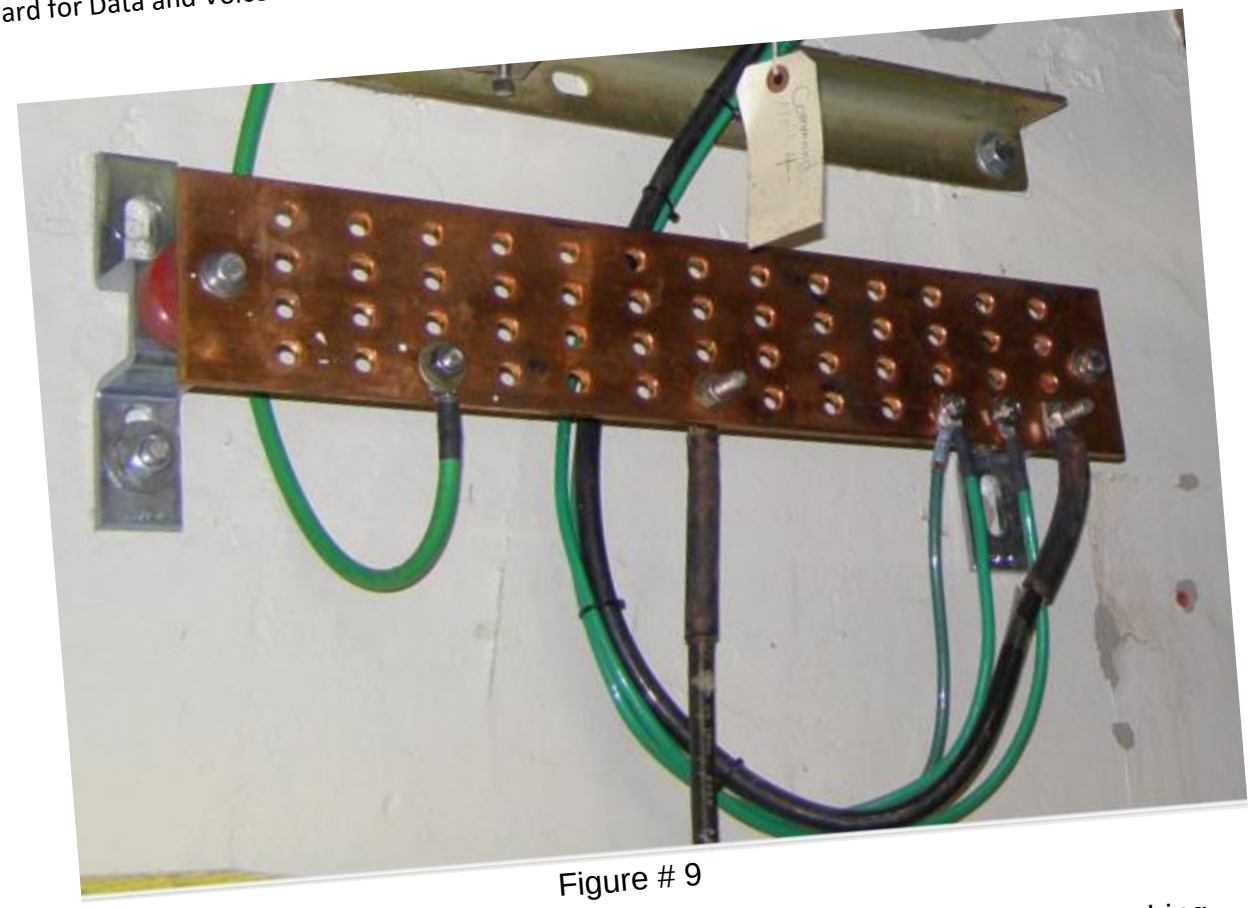


Figure # 9

All applicable general bonding requirements shall apply when attaching ground (earth) bus extension conductors and equipment grounding conductors to a ground bus conductor. The following requirements also apply:

6.1.1. All ground bus conductors should be installed without splices. Where splices are necessary, the number of splices should be kept to a minimum and they shall be accessible and only located in telecommunication spaces. The joined segments shall be connected using exothermic welding or listed irreversible compression-type connectors. All bonding joints shall be adequately supported and protected from damage (ANSI-J-STD-607-A-2002).

6.1.2. Ground bus extension conductors shall always be routed toward the MGB at the point of connection to the ground bus conductor. Ground bus extension conductors shall be connected to the ground bus conductor using exothermic welding or listed irreversible compression-type connectors. Connection points shall be taped with a suitable green tape or otherwise isolated from contact with the cable tray or other metallic surfaces.

6.1.3. Equipment grounding conductors shall always be routed toward the MGB at the point of connection to the ground bus conductor. Equipment grounding conductors shall be connected to the ground bus conductor using exothermic welding, listed compression-type connections, or listed split bolt connections. Connection points shall be taped with a suitable green tape or otherwise isolated from contact with the cable tray or other metallic surfaces. See Figure #10 and Figure #11.

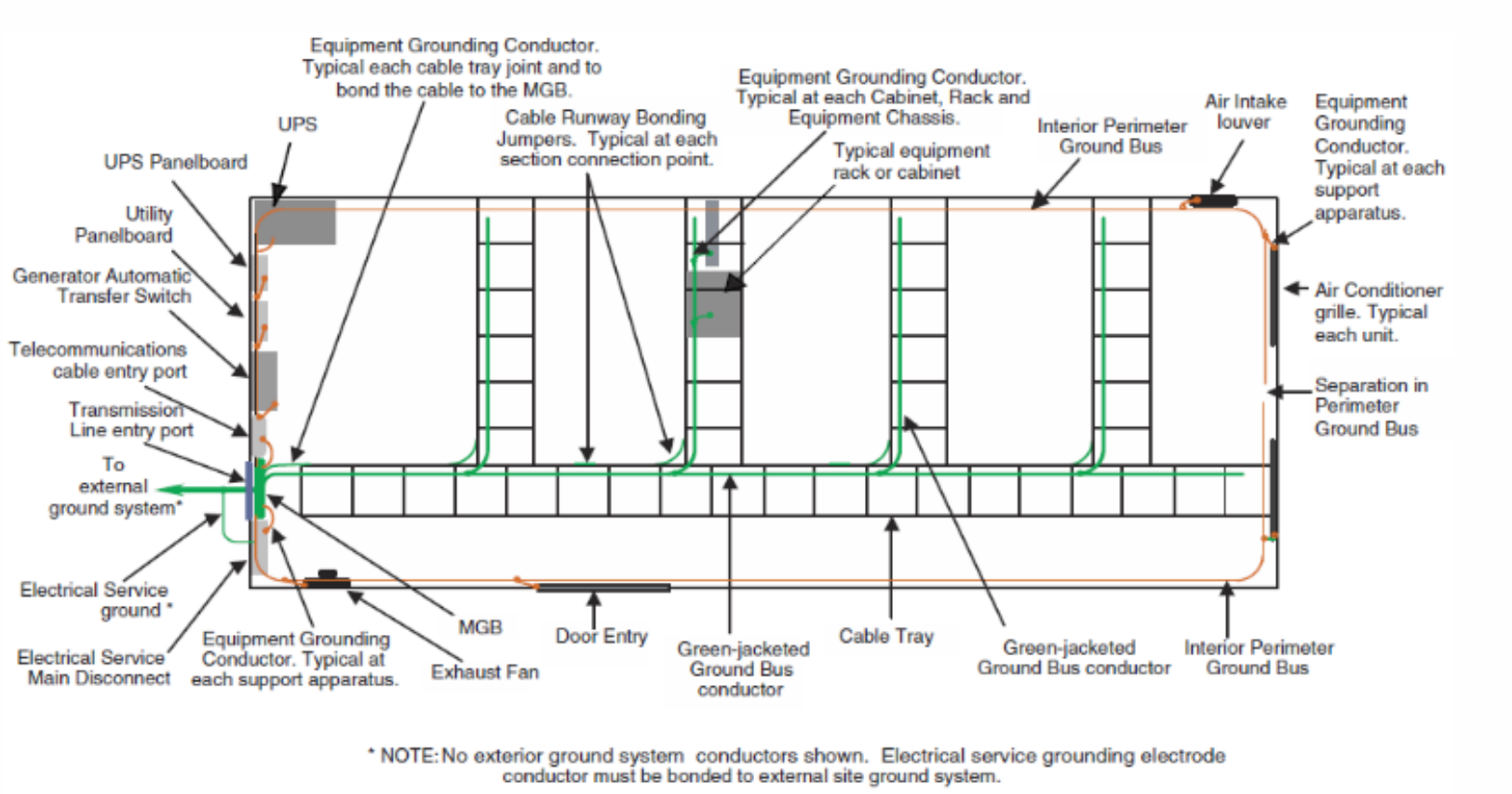

Equipment Grounding Conductor. Typical each cable tray joint and to bond the cable to the MGB.
UPS
Cable Runway Bonding Jumpers. Typical at each section connection point.
Equipment Grounding Conductor. Typical at each Cabinet, Rack and Equipment Chassis.
Typical equipment rack or cabinet
Interior Perimeter Ground Bus
Air Intake louver
Equipment Grounding Conductor. Typical at each support apparatus.
UPS Panelboard
Utility Panelboard
Generator Automatic Transfer Switch
Telecommunications cable entry port
Transmission Line entry port
To external ground system*
Air Conditioner grille. Typical each unit.
Separation in Perimeter Ground Bus
Electrical Service ground *
Electrical Service Main Disconnect
Equipment Grounding Conductor. Typical at each support apparatus.
MGB
Exhaust Fan
Door Entry
Green-jacketed Ground Bus conductor
Cable Tray
Green-jacketed Ground Bus conductor
Interior Perimeter Ground Bus
* NOTE: No exterior ground system conductors shown. Electrical service grounding electrode conductor must be bonded to external site ground system.

Figure #10

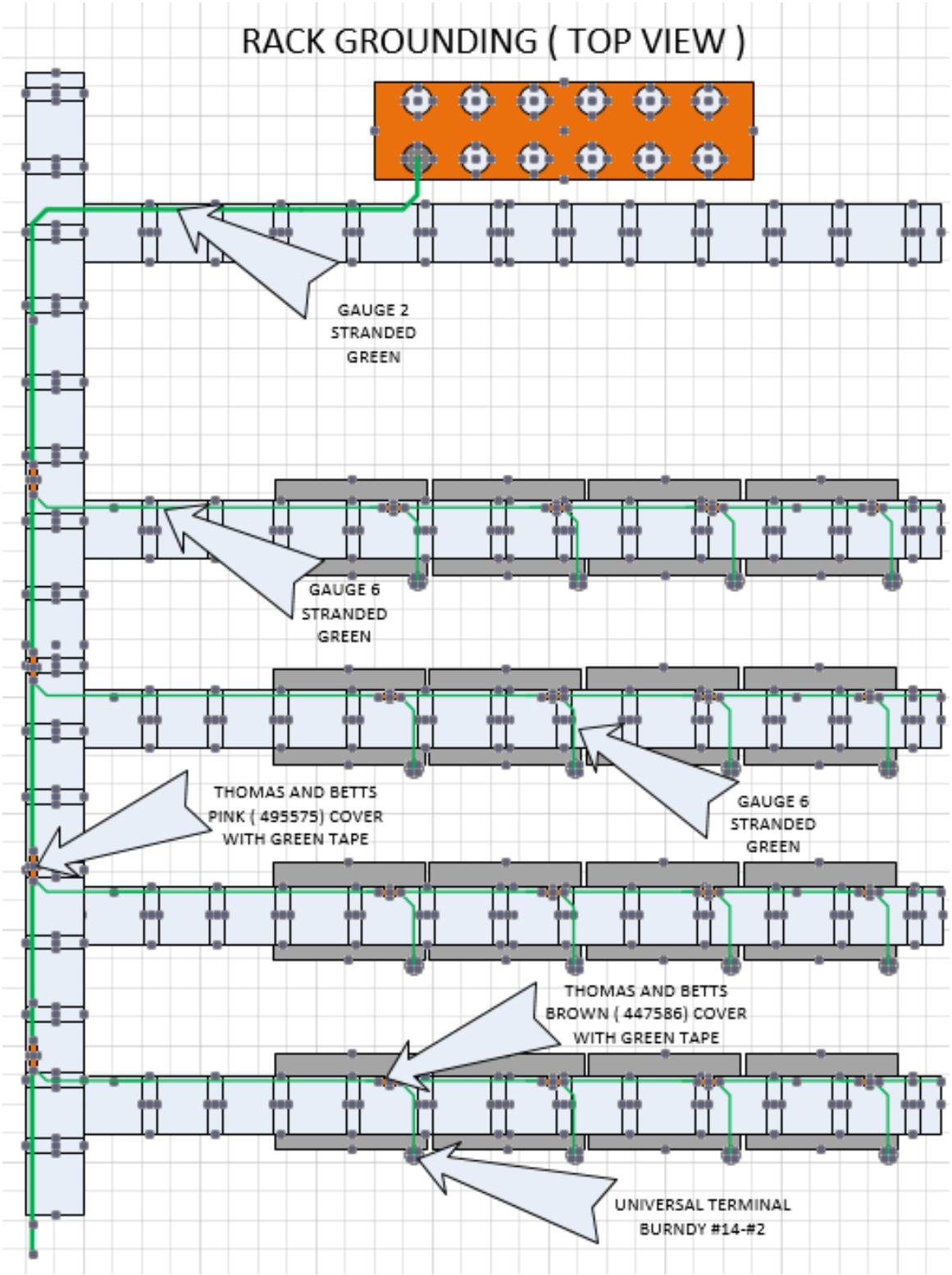

RACK GROUNDING (TOP VIEW)
GAUGE 2
STRANDED
GREEN
GAUGE 6
STRANDED
GREEN
THOMAS AND BETTS
PINK (495575) COVER
WITH GREEN TAPE
GAUGE 6
STRANDED
GREEN
THOMAS AND BETTS
BROWN (447586) COVER
WITH GREEN TAPE
UNIVERSAL TERMINAL
BURNDY #14-#2

Figure # 11

6.1.4. Equipment grounding conductors shall be connected so that the removal of a connection will not break the ground path to any other piece of equipment or ancillary support device that may have electrical power applied.

6.1.5. Multiple connections shall not be made to one attachment point on the ground bus conductor unless this connection is made using exothermic welding, irreversible compression-type connector.

6.2. Equipment Grounding

An equipment grounding (earthing) conductor bonds equipment chassis or frames, and metallic ancillary support apparatus to the internal grounding system. An equipment grounding conductor from each piece of electronic equipment shall be bonded to the MGB, SSGB, RGB, ground bus conductor or ground bus extension using suitable methods. In this case, chassis are connected to the Rack. See Figure #12.

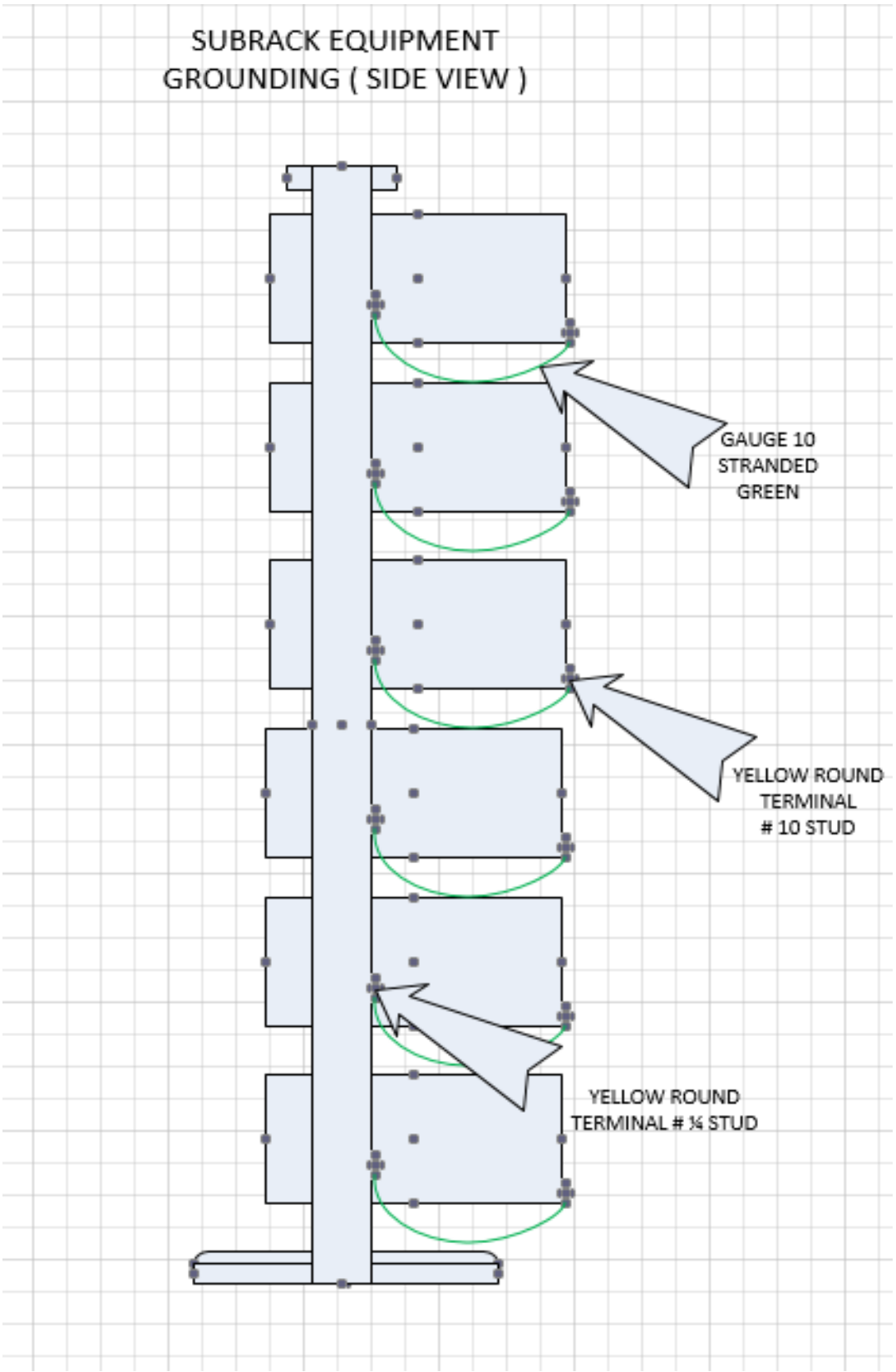

SUBRACK EQUIPMENT
GROUNDING (SIDE VIEW)
GAUGE 10
STRANDED
GREEN
YELLOW ROUND
TERMINAL
10 STUD
YELLOW ROUND
TERMINAL # ¼ STUD

Figure #12

Contact Details:

County-IT Network
Address:
976 Osos St Rm 400, San Luis Obispo, CA 93401
Phone # 805-781-4399

APPENDIX E

LEAD PAINT SURVEY, BY ASBESTOS INSPECTIONS OF SLO, DATED NOVEMBER 14, 2024

PAGE LEFT BLANK INTENTIONALLY

LEAD PAINT SURVEY



Arroyo Grande Library

800 W. Branch Street

Arroyo Grande, CA 93420

November 14, 2024

Prepared by:

Mike Bruffey
Asbestos Inspections SLO
9517 Carmel Road
Atascadero, CA 93422
Phone: (805) 235-0582

Prepared for:

County of San Luis Obispo
Public Works Department
976 Osos Street
San Luis Obispo, CA 93401
(805) 781-1523

Asbestos Inspections of SLO
www.sloasbestos.com

9517 Carmel Road, Atascadero, CA 93422 Phone: (805) 235-0582 Email: bruffey@att.net

November 14, 2024

County of San Luis Obispo – Public Works Department
C/O: Margaret Mayfield
Project Manager III
976 Osos Street
San Luis Obispo, CA 93401
(805) 781-1523 | mmayfield@co.slo.ca.us

Re: Summary: Lead Paint Survey Report – Arroyo Grande Library
800 W. Branch Street, Arroyo Grande, CA 93420

The findings contained in this report are based on my inspection of suspect lead-based paint at the Arroyo Grande Library. The date of construction was in 1979, just after lead-based paint was banned and lower levels of lead were added to paint. The inspection was conducted on November 8, 2024, for the purpose of determining if lead based paint was present on the interior and exterior walls and in what condition prior to a renovation project. The structure has a stucco exterior, drywall/joint compound/texture interior, and plaster in the woman's restrooms. The inspection was conducted by using a Sciaps X-550 XRF calibrated for 1.0 mg/cm^2. Lead based paint is anything at or above 5,000 ppm (parts per million) or 1.0 mg/cm^2. A total of twenty-three (23) results were obtained from the interior and exterior that indicate the is no lead present in the materials painted coatings. See the Lead Testing Data Sheet for each component tested and the calibration of the equipment before and after the sampling was performed. **No lead-based paint was detected in this survey and no lead hazards are present in or on this structure.** Two samples of restroom ceramic wall tile glaze were analyzed by LA Testing utilizing Flame AAS and indicate there is <80 ppm present in both samples.

AISLO appreciates the opportunity to provide these services, and I look forward to working with you on future projects. If you have any questions or comments regarding the information contained in this report or if I can be of further assistance, please contact me by phone or email.

Sincerely,

Mike Bruffey
Asbestos Inspections SLO - AISLO
CA Certified Asbestos Consultant #19-6499 | CDPH Lead Inspector Assessor LRC-00003723

SAMPLING AND ANALYSIS

This inspection involved sampling the various painted components on the interior and exterior of the Arroyo Grande Library utilizing an XRF. An XRF gives instant readings of the lead content of paint if present. Two samples of ceramic wall tile glaze located in the restrooms were sent to LA Testing Laboratory for analysis using Flame AAS as the XRF cannot accurately quantify the amount of lead nor is it calibrated to do so. The following is a detailed description of the work performed at this location:

1. Produce a comprehensive written report that includes:
    - Summary
    - Applicable Definitions
    - Lead Testing Data Sheet
    - Conclusions and Recommendations
    - Disclaimers
    - Credentials – Inspector

APPLICABLE DEFINITIONS

Abatement – any set of measures designed to reduce or eliminate lead hazards or lead-based paint for public and residential buildings but does not include containment or cleaning.

Component – a structural element or fixture, such as a wall, floor, ceiling, door, window, molding, trim, railing, cabinet, gutter, or downspout.

Deteriorated Lead-Based Paint – lead-based paint or presumed LBP that is cracking, chalking, flaking, chipping, peeling, non-intact, failed or otherwise separating from a component.

Lead-Based Paint – paint or other surface coatings that contain an amount of lead equal to or in excess of:

(a) one milligram per square centimeter (1.0 mg/cm^2)
(b) half of one percent (.05%) by weight (5000 parts per million (ppm)

Lead Hazard – deteriorated lead-based paint, lead contaminated dust, lead contaminated soil, disturbing lead-based paint or presumed lead-based paint without containment, or any other nuisance which may result in persistent and quantifiable lead exposure.

Lead-Related Construction Work – any construction, alteration, painting, demolition, salvage, renovation, repair, or maintenance of any residential or public building, including preparation, and cleanup, that, by using or disturbing lead-containing material or soil, may result in significant exposure of adults or children to lead.

Presumed Lead-Based Paint – paint or surface coating affixed to a component in or on a structure constructed prior to January 1, 1978.

Renovation, Repair and Painting Rule (RRP) – requires that firms performing renovation, repair, and painting projects that disturb lead-based paint in homes, childcare facilities and pre-schools built before 1978 have their firm certified by EPA, use certified renovators who are trained by EPA-approved training providers and follow lead-safe work practices.

XRF - X-ray fluorescence (XRF) spectrometers are a non-destructive analyzer

9517 Carmel Road, Atascadero, CA 93422 – Phone: (805) 235-0582 – Email: bruffey@att.net

CONCLUSIONS and RECOMMENDATIONS

All the paint sampled in this survey was below the level for lead-based paint. While there does not appear to be any lead present in the paint that was tested, there may still be some very low levels of lead in the painted surfaces. Currently, residential paint can contain up to 90 ppm of lead, and the allowable level in paint has dropped since lead-based paint was banned in residential paint in 1978. All the paint was intact and in good condition in and on this structure.

Ceramic wall tile glaze found in the men's and women's restrooms may contain very low levels of lead (<80 ppm). The removal of the ceramic tile in the restrooms should be done with wet methods or dust free methods and minimal breakage of the material to minimize dust that could contain lead and silica. The paragraphs below provide additional information for the proper handling and disposal of this material.

The State of California, Title 17, Division 1, and Chapter 8 pertains to all public and residential buildings in California and is enforced by the CDPH. Pursuant to Title 17 and EPA regulations, lead-based paint is defined as paint or other surface coatings containing an amount of lead equal to or greater than one milligram per square centimeter (1.0 mg/cm^2) or more than half of one percent >0.5% or 5,000 parts per million (ppm) by weight. Title 17 also defines a lead hazard as deteriorated lead-based paint, disturbing lead-based paint or presumed lead-based paint without containment, or any other nuisances which may result in persistent or quantifiable lead exposure. Additionally, worker exposure to materials containing lead during construction work is regulated by the Federal OSHA 29 CFR 1926.62(a) and CAL OSHA 8 CCR §1532.1(a). These regulations require worker protection during construction "…where lead or materials containing lead are present."

Any contractor conducting work which will disturb the painted surfaces (or ceramic tile glaze if present) in this location should receive proper notification of the lead content and the condition of the lead containing surfaces or materials prior to demolition, renovation, or any activity which may disturb the material. All work should be conducted in compliance with the CAL OSHA Title 8, Section 1532.1 - Lead, and all applicable EPA regulations.

These conclusions and recommendations are based on the requirements set forth by the Department of Housing and Urban Development *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing,* 40 CFR Part 61 and CAL OSHA Construction Safety Orders, Title 8, Chapter 4, Section 1532.1.

Note: Work which disturbs lead based paint in quantities of more than 6 square feet inside or 20 square feet outside <u>in a single-family residence or child occupied facility built prior to 1978</u>, requires a certified renovator to conduct the work in accordance with EPA's 2008 Lead-Based Paint Renovation, Repair and Painting (RRP) Rule.

Any additional suspect paint or surface coating materials that are revealed by repair, renovation, remodel, or demolition activities should be assumed to be lead containing paint and managed as such, until properly sampled and analyzed.

DISCLAIMERS

The findings and conclusions rendered in this report are opinions based on the scope of work authorized by the client during this inspection. This report does not reflect variations which may exist between sampling points. These variations cannot be anticipated, nor could they be entirely accounted for, despite exhaustive additional testing. My work has been performed in accordance with generally accepted practices in the field of lead consultation.

9517 Carmel Road, Atascadero, CA 93422 – Phone: (805) 235-0582 – Email: bruffey@att.net

LEAD TESTING DATA SHEET

Client: County of San Luis Obispo **Date: November 8, 2024**

Location : Arroyo Grande Library

XRF: SciAps X-550 SN: 02332 **Inspector:** Mike Bruffey – CDPH Lead Inspector Assessor LRC-0003723

Sample #	Component Location	Component*	Substrate**	Color	Condition (if not intact)	Result (+/-)	Concentration (mg/cm2)		Notes
1	**Calibration**					Negative	0.946		
2	**Calibration**					Positive	0.962		
3	**Calibration**					Positive	1.015		
4	**Calibration**					Positive	0.975		
5	W Interior RR	Wall	Plaster	Yellow		Negative	0		
6	W Interior RR	Wall	Plaster	Yellow		Negative	0		
7	RR Hallway	Wall	Drywall	Tan		Negative	0.001		
8	RR Hallway	Wall	Drywall	Tan		Negative	0.001		
9	Men's RR	Wall	Drywall	Beige		Negative	0.001		
10	Men's RR	Wall	Drywall	Beige		Negative	0		
11	South Wall	Wall	Drywall	Beige		Negative	0		
12	Entry	Wall	Drywall	Beige		Negative	0		
13	Round Entry	Wall	Drywall	Green		Negative	0		
14	Round Entry	Wall	Drywall	Lt Brn		Negative	0		
15	Round Entry	Wall	Drywall	Green		Negative	0		
16	Staff Door	Wall	Drywall	White		Negative	0.001		
17	Office	Wall	Drywall	Beige		Negative	0		
18	Office	Base Cv	Drywall	Brown		Negative	0.005		
19	Office	Wall	Drywall	Tan		Negative	0		
20	Workroom	Wall	Drywall	Beige		Negative	0		
21	Workroom	Wall	Drywall	Beige		Negative	0		
22	N Restroom	Wall	Drywall	Beige		Negative	-0.001		

*Component: Baseboard, Ceiling, Wall, Door, Door Case, Door Jamb, Door Stop, Window Case, Window Sill, Window Apron, Window Sash, Window Jam, Column, Railing, Post, Sign, etc.
**Substrate: (B) Brick, (C) Concrete, (D) Drywall, (M) Metal, (P) Plaster, (W) Wood

	Component Location	Component*	Substrate**	Color	Condition (if not intact)	Result (+/-)	Concentration (mg/cm2)		Notes
23	Workroom	Door Frm	Metal	Brown		Negative	0.002		
24	Exterior South	Wall	Stucco	Peach		Negative	0		
25	Exterior South	Wall	Stucco	Peach		Negative	0.001		
26	Exterior Enty	Wall	Stucco	Peach		Negative	0		
27	Exterior West	Wall	Stucco	Peach		Negative	0		
28	**Calibration**					Positive	0.968		
29	**Calibration**					Positive	0.955		
30	**Calibration**					Positive	0.964		
31	**Calibration**					Positive	0.962		
32									
33									
34									
35									
36									
37									
38									
39									
40									
41									
42									
43									
44									
45									
46									
47									
48									

*Component: Baseboard, Ceiling, Wall, Door, Door Case, Door Jamb, Door Stop, Window Case, Window Sill, Window Apron, Window Sash, Window Jam, Column, Railing, Post, Sign, etc.
**Substrate: (B) Brick, (C) Concrete, (D) Drywall, (M) Metal, (P) Plaster, (W) Wood

LA Testing
5431 Industrial Drive, Huntington Beach, CA 92649
Phone/Fax: (714) 828-4999 / (714) 828-4944
http://www.LATesting.com hblab@latesting.com

LA Testing Order: 332421944
CustomerID: AISL42
CustomerPO:
ProjectID:

Attn: **Mike Bruffey**
Asbestos Inspections SLO
9517 Carmel Road
Atascadero, CA 93422

Phone: (805) 235-0582
Fax:
Received: 11/11/2024 10:15 AM
Collected: 11/8/2024

Project: **ARROYO GRANDE LIBRARY**

Test Report: Lead in Paint Chips by Flame AAS (SW 846 3050B/7000B)*

Client SampleDescription	*Collected*	*Analyzed*	*Weight*	*RDL*	*Lead Concentration*
L1 *332421944-0001*	11/8/2024	11/13/2024 Site: MENS RR Desc: WHITE CERAMIC TILE GLAZE	0.2813 g	80 ppm	<80 ppm
L2 *332421944-0002*	11/8/2024	11/13/2024 Site: WOMENS SINGLE RR Desc: Y CER T GLAZE	0.2872 g	80 ppm	<80 ppm

Michael Chapman

Michael Chapman, Laboratory Manager
or other approved signatory

LA Testing maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by LA Testing. LA Testing bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted.
Analysis following Lead in Paint by LA Testing SOP/Determination of Environmental Lead by FLAA. Reporting limit is 0.008% wt based on the minimum sample weight per our SOP. "<" (less than) result signifies the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. Definitions of modifications are available upon request.
Samples analyzed by LA Testing Huntington Beach, CA AIHA LAP, LLC-ELLAP Accredited #101650, CA ELAP 1406

Initial report from 11/13/2024 17:55:38

OrderID: 332421944

Lead Chain of Custody

EMSL Order Number / Lab Use Only

#332421944

LATesting
5431 Industrial Drive
Huntington Beach, CA 92649
PHONE: (714) 828-4999
EMAIL: huntingtonbeachlab@latesting

Customer Information		Billing Information	
Customer ID:	AISL42	Billing ID:	
Company Name:	Asbestos Inspections SLO	Company Name:	Asbestos Inspections SLO
Contact Name:	Mike Bruffey	Billing Contact:	Mike Bruffey
Street Address:	9517 Carmel Road	Street Address:	9517 Carmel Road
City, State, Zip:	Atascadero CA 93422	City, State, Zip:	Atascadero CA 93422
Country:	US	Country:	US
Phone:	805-235-0582	Phone:	805-235-0582
Email(s) for Report:	bruffbruffey@gmail.com	Email(s) for Invoice:	Same As

Project Information

Project Name/No:	Arroyo Grande Library	Purchase Order:	
EMSL LIMS Project ID: (If applicable, EMSL will provide)		US State where samples collected:	CA
State of Connecticut (CT) must select project location:	☐ Commercial (Taxable) ☐ Residential (Non-Taxable)		
Sampled By Name:	Mike Bruffey	Sampled By Signature:	Mike Bruffey
No. of Samples in Shipment	2		

Turn-Around-Time (TAT)

☐ 3 Hour ☐ 6 Hour ☐ 24 Hour ☐ 32 Hour ☐ 48 Hour ☐ 72 Hour ☑ 96 Hour ☐ 1 Week ☐ 2 Week

Please call ahead for large projects and/or turnaround times 6 Hours or Less. *32 Hour TAT available for select tests only; samples must be submitted by 11:30am.

MATRIX	METHOD	INSTRUMENT	REPORTING LIMIT	SELECTION
CHIPS ☐ % by wt. ☑ ppm (mg/kg) ☐ mg/cm²	SW 846-7000B	Flame Atomic Absorption	0.008% (80ppm)	☑
*Reporting Limit based on a minimum 0.25g sample weight	SW 846-6010D*	ICP-OES	0.0004% (4ppm)	☐
AIR	NIOSH 7082	Flame Atomic Absorption	4µg/filter	☐
	NIOSH 7300M / NIOSH 7303M	ICP-OES	0.5µg/filter	☐
	NIOSH 7300M / NIOSH 7303M	ICP-MS	0.05µg/filter	☐
WIPE ☐ ASTM ☐ NON-ASTM	SW 846-7000B	Flame Atomic Absorption	10µg/wipe	☐
*If no box is checked, non-ASTM Wipe is assumed	SW 846-6010D*	ICP-OES	1.0µg/wipe	☐
TCLP	SW 846-1311 / 7000B / SM 3111B	Flame Atomic Absorption	0.4 mg/L (ppm)	☐
	SW 846-1311 / SW 846-6010D*	ICP-OES	0.1 mg/L (ppm)	☐
SPLP	SW 846-1312 / 7000B / SM 3111B	Flame Atomic Absorption	0.4 mg/L (ppm)	☐
	SW 846-1312 / SW 846-6010D*	ICP-OES	0.1 mg/L (ppm)	☐
TTLC	22 CCR App. II, 7000B	Flame Atomic Absorption	40mg/kg (ppm)	☐
	22 CCR App. II, SW 846-6010D*	ICP-OES	2mg/kg (ppm)	☐
STLC	22 CCR App. II, 7000B	Flame Atomic Absorption	0.4 mg/L (ppm)	☐
	22 CCR App. II, SW 846-6010D*	ICP-OES	0.1 mg/L (ppm)	☐
Soil	SW 846-7000B	Flame Atomic Absorption	40mg/kg (ppm)	☐
	SW 846-6010D*	ICP-OES	2mg/kg (ppm)	☐
Wastewater	SM 3111B / SW 846-7000B	Flame Atomic Absorption	0.4 mg/L (ppm)	☐
Unpreserved ☐ / Preserved with HNO3 ☐ PH<2	EPA 200.7	ICP-OES	0.020 mg/L (ppm)	☐
Drinking Water	EPA 200.5	ICP-OES	0.003 mg/L (ppm)	☐
Unpreserved ☐ / Preserved with HNO3 ☐ PH<2	EPA 200.8	ICP-MS	0.001 mg/L (ppm)	☐
TSP/SPM Filter	40 CFR Part 50	ICP-OES	12 µg/filter	☐
Other:				☐

Sample Number	Sample Location	~~Volume / Area~~	Date / Time Sampled
L1	Mens RR/White Ceramic tile Glaze		11-8-24/11:45
L2	Womans Single RR/Y Cer T Glaze		↓

Method of Shipment:	Fed Ex SO	Sample Condition Upon Receipt:	
Relinquished by:	Mike Bruffey MB	Date/Time: 11-8-24/2:40	Received by: Jonathan Sanford (EFA)
Date/Time	11/11/24 10:45a		
Relinquished by:		Date/Time:	Received by:
Date/Time			

Controlled Document - COC-25 Lead R16 4/19/2021

*6010C Available Upon Request

☐ AGREE TO ELECTRONIC SIGNATURE (By checking, I consent to signing this Chain of Custody document by electronic signature.)

EMSL Analytical, Inc.'s Laboratory Terms and Conditions are incorporated into this Chain of Custody by reference in their entirety. Submission of samples to EMSL Analytical, Inc. constitutes acceptance and acknowledgment of all terms and conditions by Customer.

California Department of PublicHealth

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC HEALTH

LEAD-RELATED CONSTRUCTION CERTIFICATE

INDIVIDUAL:	CERTIFICATE TYPE:	NUMBER:	EXPIRATION DATE:
 **Michael Bruffey**	Lead Inspector/Assessor	LRC-00003723	12/19/2025

Disclaimer: This document alone should not be relied upon to confirm certification status. Compare the individual's photo and name to another valid form of government issued photo identification. Verify the individual's certification status by searching for Lead-Related Construction Professionals at www.cdph.ca.gov/programs/clppb or calling (800) 597-LEAD

Contract No. 320196

E-13

Appendix E

APPENDIX F

ASBESTOS SURVEY REPORT BY ASBESTOS INSPECTIONS OF SLO, DATED NOVEMBER 16, 2024

PAGE LEFT BLANK INTENTIONALLY

Asbestos Inspections of SLO
www.sloasbestos.com

ASBESTOS SURVEY REPORT



Arroyo Grande Library

800 W. Branch Street

Arroyo Grande, CA 93420

November 16, 2024

Prepared by:

Mike Bruffey
Asbestos Inspections of SLO
9517 Carmel Road
Atascadero, CA 93422
Phone: (805) 235-0582

Prepared for:

County of San Luis Obispo
Public Works Department
976 Osos Street
San Luis Obispo, CA 93401
Phone: (805) 781-1523

Asbestos Inspections of SLO
www.sloasbestos.com

9517 Carmel Road, Atascadero, CA 93422 Phone: (805) 235-0582 Email: bruffey@att.net

November 16, 2024

County of San Luis Obispo – Public Works Department
C/O: Margaret Mayfield
Project Manager III
976 Osos Street
San Luis Obispo, CA 93401
Phone: (805) 781-1523 | mmayfield@co.slo.ca.us

Re: Asbestos Survey Report Summary – Arroyo Grande Library
800 W. Branch Street, Arroyo Grande, CA 93420

The findings, conclusions, and recommendations in this report are based on my inspection and collection of samples at the above noted location. The requested asbestos survey on the Arroyo Grande Library was conducted prior to a project that will disturb several types of materials located on the interior and exterior. This structure was built in 1979 and around the time that asbestos was no longer added to some building materials. This survey was conducted to sample suspect materials found on the interior walls and floors in several areas as well as the exterior walls where windows will be removed.

This survey, conducted on November 8, 2024, involved sampling, cataloging, and analyzing the suspect materials on the wall and floors in the areas noted on the documentation provided to me to test for the presence of asbestos. Of the thirty-two (32) samples collected and sent to the lab for analysis, all were **"none detected"** for asbestos.

AISLO appreciates the opportunity to provide these services for you and I look forward to working with you on future projects. If you have any questions or comments regarding the information contained in this report or if I can be of further assistance, please contact me by phone or email.

Sincerely,

Mike Bruffey
Consultant
Asbestos Inspections of SLO - AISLO
CA Certified Asbestos Consultant #19-6499 | CDPH Certified Lead Inspector Assessor

PURPOSE AND SCOPE OF SERVICES

This survey and inspection involved collecting bulk samples of suspect materials from the interior and exterior and sending those samples to a NVLAP laboratory to analyze for the presence of asbestos. The following is a detailed description of the work performed at this location.

1. Visual inspection of the specific areas that may be disturbed for the following materials: Category I non-friable ACM, Category II non-friable ACM, and Regulated Asbestos Containing Materials (RACM). Accessible materials were visually inspected and sampled using the methods presented in the Federal AHERA regulations (40 CFR, Part 763). AHERA inspection methodology is required to be used for inspections of K-12 schools and is generally accepted as the industry standard for all ACM inspections regardless of structure or facility type.

2. For each sample, the following information was documented:
    a) Sample Location
    b) Sample Description
    c) Friability
    d) Condition of Material
    e) Potential for Disturbance

3. Submission of samples to an EPA accredited lab for analysis that provides a report containing:
    a) Sample identification number (AISLO)
    b) Laboratory sample identification number
    c) Analytical technique
    d) Quality control procedures
    e) Type and percentage of asbestos (if any) in each material

4. Analyze the laboratory sample results and produce a comprehensive written report that includes:
    - Applicable Definitions
    - Summary of Lab Results
    - Asbestos Containing Building Materials
    - Conclusions and Recommendations
    - Limitations and Disclaimers
    - Sample Location Diagram (if required or requested)
    - Bulk Asbestos Analysis – Laboratory Reports
    - Analysis Request Form - Chain of Custody
    - Credentials – Inspector

Materials visibly identified as non-asbestos (glass, wood, plastic, and metal) were not sampled.

APPLICABLE ASBESTOS DEFINITIONS

Asbestos – Asbestos is a group of six naturally occurring fibrous minerals composed of thin, needle-like fibers. They include chrysotile, amosite, crocidolite, tremolite, anthophyllite, and actinolite. Exposure to asbestos may cause several cancers and diseases, including mesothelioma and asbestosis.

Asbestos Containing Material (ACM) – any material containing more than one percent (1%) asbestos.

ACM Conditions – Good (intact), **Fair** (Damaged), and **Poor** (Significantly Damaged)

Asbestos Containing Construction Material (ACCM) - any manufactured construction material which contains **more than 1/10th of 1% asbestos (.1%)** by weight.

Asbestos Related Work - The activity, by disturbing asbestos-containing construction materials (ACCM), may release asbestos fibers into the air and is not related to its manufacture, the mining or excavation of asbestos-bearing ore or materials

Category I Non-Friable ACM – asbestos containing packings, gaskets, resilient floor covering, Galbestos, and asphalt roofing products containing more than 1% asbestos.

Category II Non-Friable ACM – any material that is not Cat I that contains more than 1% asbestos. Generally cementitious in nature such as stucco, transite, etc.

Friable ACM – any material containing more than 1% asbestos and can be crumbled, pulverized, or reduced to powder/dust by applying hand pressure.

NESHAPS – National Emission Standards for Hazardous Air Pollutants – EPA regulation 40 CFR subpart M, Part 61

Regulated Asbestos Containing Material (RACM) – (a) Friable asbestos material, (b) Category I non-friable ACM that has become friable, (c) Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading, or (d) Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations.

SUMMARY OF LAB RESULTS - ASBESTOS

Sample#	Location or Room #	Material Description	Asbestos Present	Type of Asbestos	% Asbestos	Quantity	Condition	NESHAPS Category
1	Bath Hallway	Drywall/Joint Compound/Txt	NO	NA	NA	NA	NA	NA
2	S/Hall Wall	Drywall/Joint Compound/Txt	NO	NA	NA	NA	NA	NA
3	S Wall	Drywall/Joint Compound/Txt	NO	NA	NA	NA	NA	NA
4	Entry Wall	Drywall/Joint Compound/Txt	NO	NA	NA	NA	NA	NA
5	Entry Wall	Drywall/Joint Compound/Txt	NO	NA	NA	NA	NA	NA
6	Office Wall	Drywall/Joint Compound/Txt	NO	NA	NA	NA	NA	NA
7	Office Wall	Drywall/Joint Compound/Txt	NO	NA	NA	NA	NA	NA
8	Office Wall	Drywall/Joint Compound/Txt	NO	NA	NA	NA	NA	NA
9	Conf. Wall	Drywall/Joint Compound/Txt	NO	NA	NA	NA	NA	NA
10	Workrm Wall	Drywall/Joint Compound/Txt	NO	NA	NA	NA	NA	NA
11	S/Hall Wall	Brown Base Cove/Mastic	NO	NA	NA	NA	NA	NA
12	Bath/Hall	Sheet Flooring/Mastic	NO	NA	NA	NA	NA	NA
13	Workroom	1'x1' VFT/Black Mastic	NO	NA	NA	NA	NA	NA
14	Stair Landing	1'x1' VFT/Black Mastic	NO	NA	NA	NA	NA	NA
15	Entry	Carpet and Mastic	NO	NA	NA	NA	NA	NA
16	Work Room	Brown Base Cove/Mastic	NO	NA	NA	NA	NA	NA
17	Wkrm/bath	Sheet Flooring/Mastic	NO	NA	NA	NA	NA	NA
18	Stair Landing	1'x1' VFT/Black Mastic	NO	NA	NA	NA	NA	NA
19	Stair Landing	1'x1' VFT/Black Mastic	NO	NA	NA	NA	NA	NA
20	Bath Hallway	Carpet/Mastic	NO	NA	NA	NA	NA	NA
21	Men's Bath	Drywall/Joint Compound/Txt	NO	NA	NA	NA	NA	NA
22	Custodial	Drywall/Joint Compound/Txt	NO	NA	NA	NA	NA	NA
23	Women's RR	Drywall/Joint Compound/Txt	NO	NA	NA	NA	NA	NA
24	Women's RR	Plaster/skimcoat	NO	NA	NA	NA	NA	NA
25	Double W RR	Plaster/skimcoat	NO	NA	NA	NA	NA	NA
26	Men's RR	Wall Ceramic Tile/Mortar/G	NO	NA	NA	NA	NA	NA
27	Men's RR	Floor Tile/Mortar/Grout	NO	NA	NA	NA	NA	NA
28	Women's RR	Wall Ceramic Tile/Mortar/G	NO	NA	NA	NA	NA	NA
29	Double W RR	Floor Tile/Mortar/Grout	NO	NA	NA	NA	NA	NA
30	South Wall	Stucco/Coating	NO	NA	NA	NA	NA	NA
31	2nd F S Wall	Stucco/Coating	NO	NA	NA	NA	NA	NA
32	West Wall	Stucco/Coating	NO	NA	NA	NA	NA	NA

MATERIALS THAT CONTAIN ASBESTOS
NONE

MATERIALS THAT *DO NOT* CONTAIN ASBESTOS BY LABORATORY ANALYSIS
White Joint Compound
Beige Tape
Brown/White Drywall
Grey/Tan/White & Grey White Sheet Flooring
Yellow Flooring Mastic
Tan & Tan/White 1'x1' Vinyl Floor Tile
Black Floor Mastic
Beige 1'x1' Vinyl Floor Tile
Tan/Black Mastic
Brown/Gray Carpet
Grey leveler
Brown Base Cove
Beige and Brown Mastic
Tan Plaster
White Skim Coat
Grey & White/Beige Ceramic Tile
Gray Grout
Gray Mastic
White Mortar
Tan Mortar
White Grout
Gray/Tan Mortar
Brown/Red Grout
Gray Stucco, Yellow & Beige Coating

ASBESTOS CONTAINING MATERIALS

Suspect asbestos containing materials (ACM's) were collected at the site location for the purpose of identifying materials that will be disturbed in a renovation project. A total of thirty-two (32) samples were collected from the interior and exterior, documented, and submitted to LA Testing, an EPA accredited laboratory for analytical testing. Lab results can be found in the **Bulk Asbestos Analysis** section of this report. The samples were analyzed for the presence of asbestos by Polarized Light Microscopy (PLM) with dispersion staining in accordance with the EPA Method 600/R-93-116, Visual Area Estimation.

Regulations in California (Cal OSHA Title 8, CCR 1529) define asbestos containing construction materials (ACCM) as those materials having asbestos content of greater than one tenth of one percent (>0.1%); therefore, for the purpose of this survey, any amount of asbestos detected will be considered positive.

Of the 32 samples that were analyzed by the lab for asbestos, none were found to contain asbestos.

CONCLUSIONS AND RECOMMENDATIONS

No asbestos containing materials were detected during this asbestos survey. If additional suspect material is discovered during any renovation or demolition activities, the material should be assumed to contain asbestos or sampled to prove otherwise. If other materials will be disturbed or removed that were not sampled and analyzed during this inspection, please call for additional sampling and analysis.

Any material that contains greater than 1 percent asbestos is considered asbestos containing material (ACM) and if removed, must be handled, transported, and disposed of according to EPA and other applicable local regulations.

The local County Air Pollution Control District is the delegated authority to implement the asbestos NESHAP regulation in any given county. This regulation requires specific actions by the owner or operator of the applicable project. Before beginning the project and for additional information and requirements, be sure to visit the San Luis Obispo County APCD website (https://www.slocleanair.org/rules-regulations/asbestos.php) or call them at (805) 781-5912.

Local building and planning departments should also be consulted before any renovation or demolition begins on this project as they may have specific rules and regulations regarding projects involving commercial and residential projects.

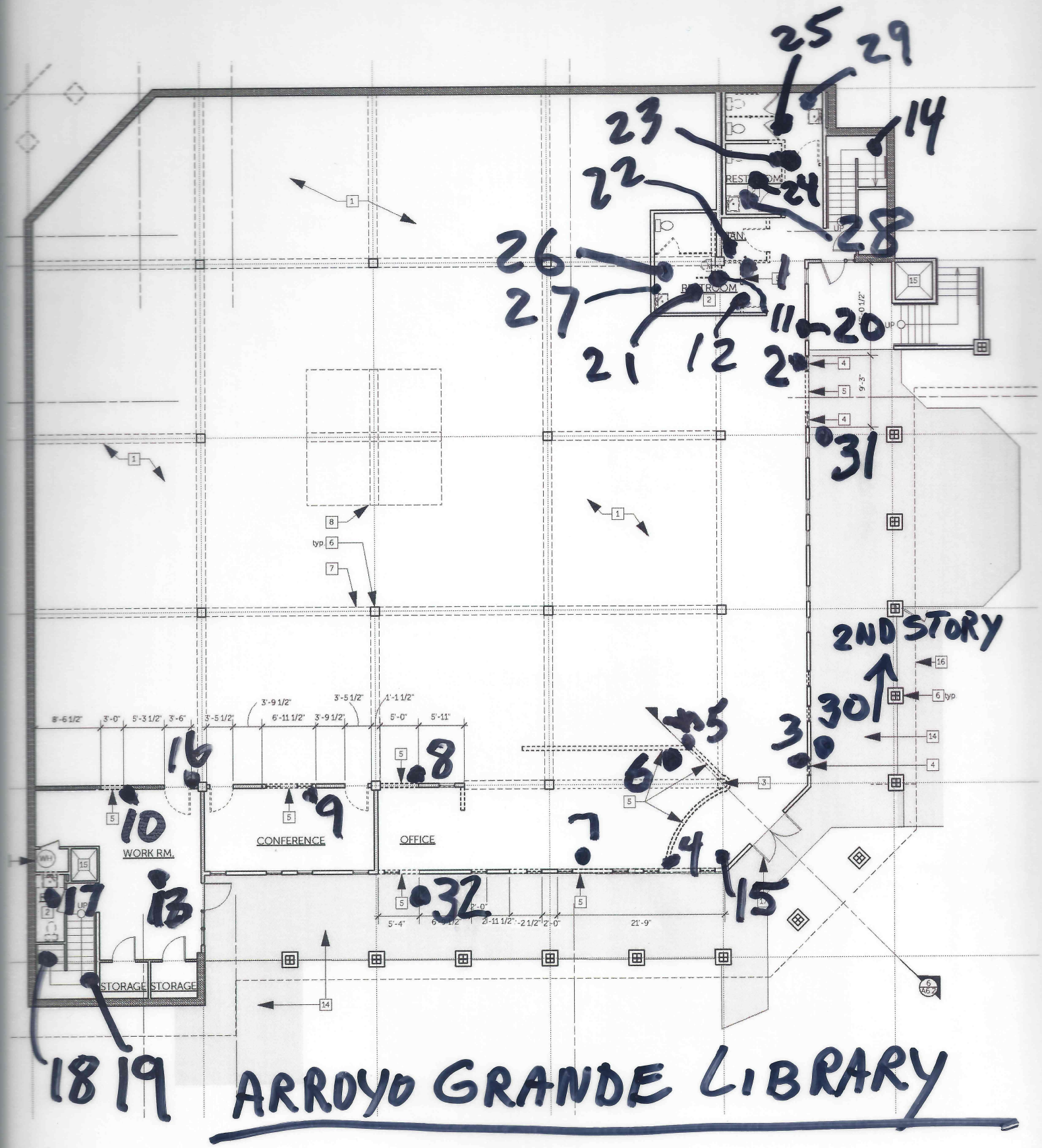
These conclusions and recommendations are based on the requirements set forth in 40 CFR Part 61, National Emission Standards for Hazardous Air Pollutants (NESHAPS) Subpart M, and Title 8, Chapter 4, Section 1529 – Cal/OSHA Construction Safety Orders for Asbestos.

LIMITATIONS AND DISCLAIMERS

The findings and conclusions rendered in this report are opinions based on the scope of work authorized by the client and laboratory analysis of building material samples collected during this inspection. This report does not reflect variations which may exist between sampling points. These variations cannot be anticipated, nor could they be entirely accounted for, despite exhaustive additional testing. My work has been performed in accordance with generally accepted practices in the field of asbestos consultation. No other warranty, either expressed or implied, is made.

Although every effort is made to identify all the asbestos containing materials that may be disturbed, it is possible for asbestos containing materials which are located under sub-floors, behind walls or otherwise inaccessible and hidden from view to go undetected until demolition or renovation activities uncover the material.

Enclosed with this report is the Bulk Asbestos Analysis (Laboratory Report) from LA Testing, Analysis Request Form (Chain of Custody), and my Certified Asbestos Consultant certification documentation.


25
29
23
14
22
24
28
26
1
27
11
20
21
12
2
31
typ. 6
7
8
2ND STORY
30
16
6 typ
14
4
3
5
6
10
9
8
CONFERENCE
OFFICE
WORK RM.
7
4
15
17
13
32
STORAGE
STORAGE
18
19
ARROYO GRANDE LIBRARY

LA Testing

5431 Industrial Drive Huntington Beach, CA 92649

Tel/Fax: (714) 828-4999 / (714) 828-4944

http://www.LATesting.com / hblab@latesting.com

LA Testing Order:	332421961
Customer ID:	AISL42
Customer PO:	
Project ID:	

Attention:	Mike Bruffey	**Phone:**	(805) 235-0582
	Asbestos Inspections SLO	**Fax:**	
	9517 Carmel Road	**Received Date:**	11/11/2024 10:15 AM
	Atascadero, CA 93422	**Analysis Date:**	11/15/2024
		Collected Date:	11/08/2024
Project:	ARROYO GRANDE LIBRARY		

Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
1-Joint Compound *332421961-0001*	RR HALL - DRYWALL / JOINT COMP	White Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
1-Tape *332421961-0001A*	RR HALL - DRYWALL / JOINT COMP	Beige Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (Other)	None Detected
1-Drywall *332421961-0001B*	RR HALL - DRYWALL / JOINT COMP	Brown/White Fibrous Heterogeneous	8% Cellulose 2% Glass	70% Gypsum 20% Non-fibrous (Other)	None Detected
2-Joint Compound *332421961-0002*	S WALL - DRYWALL / JOINT COMP	White Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
2-Drywall *332421961-0002A*	S WALL - DRYWALL / JOINT COMP	Brown/White Fibrous Heterogeneous	7% Cellulose 3% Glass	70% Gypsum 20% Non-fibrous (Other)	None Detected
3-Joint Compound *332421961-0003*	ENTRY - DRYWALL / JOINT COMP	White Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
3-Tape *332421961-0003A*	ENTRY - DRYWALL / JOINT COMP	Beige Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (Other)	None Detected
3-Drywall *332421961-0003B*	ENTRY - DRYWALL / JOINT COMP	Brown/White Fibrous Heterogeneous	7% Cellulose 3% Glass	70% Gypsum 20% Non-fibrous (Other)	None Detected
4-Joint Compound *332421961-0004*	ENTRY - DRYWALL / JOINT COMP	White Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
4-Mesh *332421961-0004A*	ENTRY - DRYWALL / JOINT COMP	White Fibrous Homogeneous	30% Synthetic 65% Glass	5% Non-fibrous (Other)	None Detected
4-Drywall *332421961-0004B*	ENTRY - DRYWALL / JOINT COMP	Brown/White Fibrous Heterogeneous	7% Cellulose 3% Glass	70% Gypsum 20% Non-fibrous (Other)	None Detected
5-Joint Compound *332421961-0005*	ENTRY - DRYWALL / JOINT COMP	White Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
5-Drywall *332421961-0005A*	ENTRY - DRYWALL / JOINT COMP	Brown/White Fibrous Heterogeneous	8% Cellulose 2% Glass	70% Gypsum 20% Non-fibrous (Other)	None Detected
6-Joint Compound *332421961-0006*	BOOK RM - DRYWALL / JOINT COMP	White Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
6-Drywall *332421961-0006A*	BOOK RM - DRYWALL / JOINT COMP	Brown/White Fibrous Heterogeneous	7% Cellulose 3% Glass	70% Gypsum 20% Non-fibrous (Other)	None Detected
7-Joint Compound *332421961-0007*	OFFICE - DRYWALL / JOINT COMP	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected

Initial report from: 11/15/2024 14:02:54

LA Testing

5431 Industrial Drive Huntington Beach, CA 92649

Tel/Fax: (714) 828-4999 / (714) 828-4944

http://www.LATesting.com / hblab@latesting.com

LA Testing Order: 332421961
Customer ID: AISL42
Customer PO:
Project ID:

Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
7-Drywall *332421961-0007A*	OFFICE - DRYWALL / JOINT COMP	Brown/White Fibrous Heterogeneous	10% Cellulose 2% Glass	70% Gypsum 18% Non-fibrous (Other)	None Detected
8-Joint Compound *332421961-0008*	OFFICE - DRYWALL / JOINT COMP	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
8-Tape *332421961-0008A*	OFFICE - DRYWALL / JOINT COMP	Beige Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (Other)	None Detected
8-Drywall *332421961-0008B*	OFFICE - DRYWALL / JOINT COMP	Brown/White Fibrous Heterogeneous	10% Cellulose 3% Glass	70% Gypsum 17% Non-fibrous (Other)	None Detected
9-Joint Compound *332421961-0009*	CONFERENCE - DRYWALL / JOINT COMP	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
9-Drywall *332421961-0009A*	CONFERENCE - DRYWALL / JOINT COMP	Brown/White Fibrous Heterogeneous	10% Cellulose 2% Glass	70% Gypsum 18% Non-fibrous (Other)	None Detected
10-Joint Compound 1 *332421961-0010*	WORKROOM - DRYWALL / JOINT COMP	Beige Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
10-Joint Compound 2 *332421961-0010A*	WORKROOM - DRYWALL / JOINT COMP	White Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
10-Drywall *332421961-0010B*	WORKROOM - DRYWALL / JOINT COMP	Brown/White Fibrous Heterogeneous	10% Cellulose 2% Glass	70% Gypsum 18% Non-fibrous (Other)	None Detected
11-Base Cove *332421961-0011*	RR HALL - BASE COVE / MASTIC	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
11-Mastic *332421961-0011A*	RR HALL - BASE COVE / MASTIC	Beige Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
11-Joint Compound *332421961-0011B*	RR HALL - BASE COVE / MASTIC	White Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
12-Sheet Flooring *332421961-0012*	RR HALL - SHEET FLOOR	Gray/Tan/White Fibrous Heterogeneous	25% Cellulose 5% Glass	70% Non-fibrous (Other)	None Detected
12-Mastic *332421961-0012A*	RR HALL - SHEET FLOOR	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
13-Floor Tile *332421961-0013*	WORK RM - 12X12 TILE / MASTIC	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
13-Mastic *332421961-0013A*	WORK RM - 12X12 TILE / MASTIC	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
14-Tile *332421961-0014*	STAIR LANDING - 12X12 TILE / MASTIC	Beige Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
14-Mastic *332421961-0014A*	STAIR LANDING - 12X12 TILE / MASTIC	Tan/Black Non-Fibrous Heterogeneous		100% Non-fibrous (Other)	None Detected

Result includes a small amount of inseparable attached material

Initial report from: 11/15/2024 14:02:54

LA Testing

5431 Industrial Drive Huntington Beach, CA 92649

Tel/Fax: (714) 828-4999 / (714) 828-4944

http://www.LATesting.com / hblab@latesting.com

LA Testing Order: 332421961
Customer ID: AISL42
Customer PO:
Project ID:

Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
15-Carpet *332421961-0015*	ENTRY - CARPET / MASTIC	Brown/Gray Fibrous Heterogeneous	80% Synthetic	20% Non-fibrous (Other)	None Detected
15-Mastic *332421961-0015A*	ENTRY - CARPET / MASTIC	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
15-Leveler *332421961-0015B*	ENTRY - CARPET / MASTIC	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
16-Base Cove *332421961-0016*	WORK RM - BASE COVE / MASTIC	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
16-Mastic 1 *332421961-0016A*	WORK RM - BASE COVE / MASTIC	Beige Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
16-Mastic 2 *332421961-0016B*	WORK RM - BASE COVE / MASTIC	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
17-Mastic 1 *332421961-0017*	WR RR - SHEET FLOOR	Beige Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
17-Sheet Flooring *332421961-0017A*	WR RR - SHEET FLOOR	Gray/White Fibrous Heterogeneous	20% Cellulose	80% Non-fibrous (Other)	None Detected
17-Mastic 2 *332421961-0017B*	WR RR - SHEET FLOOR	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18-Floor Tile *332421961-0018*	STAIR LANDING - 12X12 TILE / MASTIC	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18-Mastic *332421961-0018A*	STAIR LANDING - 12X12 TILE / MASTIC	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18-Tan Material *332421961-0018B*	STAIR LANDING - 12X12 TILE / MASTIC	Tan/White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19-Mastic 1 *332421961-0019*	STAIR LANDING - 12X12 TILE / MASTIC	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19-Floor Tile *332421961-0019A*	STAIR LANDING - 12X12 TILE / MASTIC	Beige Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19-Mastic 2 *332421961-0019B*	STAIR LANDING - 12X12 TILE / MASTIC	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
20-Carpet *332421961-0020*	RR HALL - CARPET / MASTIC	Brown/Gray Fibrous Heterogeneous	80% Synthetic	20% Non-fibrous (Other)	None Detected
20-Mastic *332421961-0020A*	RR HALL - CARPET / MASTIC	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
21-Joint Compound *332421961-0021*	MEN RR - DRYWALL / JOINT COMP	White Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
21-Tape *332421961-0021A*	MEN RR - DRYWALL / JOINT COMP	Beige Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (Other)	None Detected

Initial report from: 11/15/2024 14:02:54

LA Testing
5431 Industrial Drive Huntington Beach, CA 92649
Tel/Fax: (714) 828-4999 / (714) 828-4944
http://www.LATesting.com / hblab@latesting.com

LA Testing Order: 332421961
Customer ID: AISL42
Customer PO:
Project ID:

Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
21-Drywall *332421961-0021B*	MEN RR - DRYWALL / JOINT COMP	Brown/White Fibrous Heterogeneous	8% Cellulose 3% Glass	70% Gypsum 19% Non-fibrous (Other)	None Detected
22-Joint Compound *332421961-0022*	JANITOR - DRYWALL / JOINT COMP	White Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
22-Drywall *332421961-0022A*	JANITOR - DRYWALL / JOINT COMP	Brown/White Fibrous Heterogeneous	10% Cellulose 3% Glass	70% Gypsum 17% Non-fibrous (Other)	None Detected
23-Joint Compound *332421961-0023*	RR HALL - DRYWALL / JOINT COMP	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
23-Drywall *332421961-0023A*	RR HALL - DRYWALL / JOINT COMP	Brown/White Fibrous Heterogeneous	10% Cellulose 2% Glass	70% Gypsum 18% Non-fibrous (Other)	None Detected
24-Skim Coat *332421961-0024*	W SINGLE RR - PLASTER / S C	White Non-Fibrous Homogeneous		15% Quartz 85% Non-fibrous (Other)	None Detected
24-Plaster *332421961-0024A*	W SINGLE RR - PLASTER / S C	Tan Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected
25-Skim Coat *332421961-0025*	W DOUBLE - PLASTER / S C	White Non-Fibrous Homogeneous		15% Quartz 85% Non-fibrous (Other)	None Detected
25-Plaster *332421961-0025A*	W DOUBLE - PLASTER / S C	Tan Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected
26-Ceramic Tile *332421961-0026*	MENS - WHITE CER TILE / MORTAR / GR	Gray Non-Fibrous Homogeneous		5% Quartz 95% Non-fibrous (Other)	None Detected
26-Grout *332421961-0026A*	MENS - WHITE CER TILE / MORTAR / GR	Gray Non-Fibrous Homogeneous		15% Quartz 85% Non-fibrous (Other)	None Detected
26-Mastic 1 *332421961-0026B*	MENS - WHITE CER TILE / MORTAR / GR	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
26-Mastic 2 *332421961-0026C*	MENS - WHITE CER TILE / MORTAR / GR	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
26-Mortar *332421961-0026D*	MENS - WHITE CER TILE / MORTAR / GR	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
26-Mastic 3 *332421961-0026E*	MENS - WHITE CER TILE / MORTAR / GR	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
27-Ceramic Tile *332421961-0027*	MENS - CER FLR TILE / MORTAR	Gray Non-Fibrous Homogeneous		5% Quartz 95% Non-fibrous (Other)	None Detected
27-Grout *332421961-0027A*	MENS - CER FLR TILE / MORTAR	Gray Non-Fibrous Homogeneous		25% Quartz 75% Non-fibrous (Other)	None Detected
27-Mortar *332421961-0027B*	MENS - CER FLR TILE / MORTAR	Tan Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected
27-Mastic *332421961-0027C*	MENS - CER FLR TILE / MORTAR	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Initial report from: 11/15/2024 14:02:54

LA Testing

5431 Industrial Drive Huntington Beach, CA 92649

Tel/Fax: (714) 828-4999 / (714) 828-4944

http://www.LATesting.com / hblab@latesting.com

LA Testing Order:	332421961
Customer ID:	AISL42
Customer PO:	
Project ID:	

Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
28-Ceramic Tile *332421961-0028*	W SINGLE - Y CER TILE / MORTAR / GR	White/Beige Non-Fibrous Homogeneous		5% Quartz 95% Non-fibrous (Other)	None Detected
28-Grout *332421961-0028A*	W SINGLE - Y CER TILE / MORTAR / GR	White Non-Fibrous Homogeneous		10% Quartz 90% Non-fibrous (Other)	None Detected
28-Mortar 1 *332421961-0028B*	W SINGLE - Y CER TILE / MORTAR / GR	Gray Non-Fibrous Homogeneous		25% Quartz 75% Non-fibrous (Other)	None Detected
28-Mortar 2 *332421961-0028C*	W SINGLE - Y CER TILE / MORTAR / GR	Gray/Tan Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected
29-Mastic 1 *332421961-0029*	W DOUBLE - GR CER FLR TILE	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
29-Ceramic Tile *332421961-0029A*	W DOUBLE - GR CER FLR TILE	Brown Non-Fibrous Homogeneous		5% Quartz 95% Non-fibrous (Other)	None Detected
29-Grout *332421961-0029B*	W DOUBLE - GR CER FLR TILE	Brown/Red Non-Fibrous Homogeneous		15% Quartz 85% Non-fibrous (Other)	None Detected
29-Mastic 2 *332421961-0029C*	W DOUBLE - GR CER FLR TILE	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
29-Mastic 3 *332421961-0029D*	W DOUBLE - GR CER FLR TILE	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
30-Coating *332421961-0030*	GRAY STUCCO / YELLOW COATING	Beige Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected
30-Stucco *332421961-0030A*	GRAY STUCCO / YELLOW COATING	Gray Non-Fibrous Homogeneous		25% Quartz 75% Non-fibrous (Other)	None Detected
31-Coating *332421961-0031*	GRAY STUCCO / YELLOW COATING	Beige Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected
31-Stucco *332421961-0031A*	GRAY STUCCO / YELLOW COATING	Gray Non-Fibrous Homogeneous		25% Quartz 75% Non-fibrous (Other)	None Detected
32-Coating *332421961-0032*	GRAY STUCCO / YELLOW COATING	Yellow Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected
32-Stucco *332421961-0032A*	GRAY STUCCO / YELLOW COATING	Gray Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected

Initial report from: 11/15/2024 14:02:54

LA Testing

5431 Industrial Drive Huntington Beach, CA 92649

Tel/Fax: (714) 828-4999 / (714) 828-4944

http://www.LATesting.com / hblab@latesting.com

LA Testing Order:	332421961
Customer ID:	AISL42
Customer PO:	
Project ID:	

Analyst(s)

Alexis Rodriguez (46)

Kaylin Luciani (41)

Michael Chapman, Laboratory Manager
or Other Approved Signatory

LA Testing maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by LA Testing. LA Testing bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 “Interim Method”) but augmented with procedures outlined in the 1993 (”final”) version of the method. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore LA Testing recommends gravimetric reduction prior to analysis. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Estimation of uncertainty is available on request.

Samples analyzed by LA Testing Huntington Beach, CA NVLAP Lab Code 101384-0, CA ELAP 1406

Initial report from: 11/15/2024 14:02:54

Asbestos Chain of Custody (Air, Bulk, Soil)

California Customers

EMSL Order Number / Lab Use Only

#332421961

LATesting
5431 Industrial Drive

Huntington Beach, CA 92649
PHONE: (714) 828-4999
EMAIL: huntingtonbeachlab@la

If Bill-To is the same as Report-To leave this section blank. Third-party billing requires written authorization.

Customer Information		Billing Information	
Customer ID:	AISL42	Billing ID:	
Company Name:	Asbestos Inspections SLO	Company Name:	Asbestos Inspections SLO
Contact Name:	Mike Bruffey	Billing Contact:	Mike Bruffey
Street Address:	9517 Carmel Road	Street Address:	9517 Carmel Road
City, State, Zip:	Atascadero CA 93422	City, State, Zip:	Atascadero CA 93422
Country:	US	Country:	US
Phone:	805-235-0582	Phone:	805-235-0582
Email(s) for Report:	bruffbruffey@gmail.com	Email(s) for Invoice:	same as

Project Information

Project Name/No: Arroyo Grande Library

Purchase Order:

EMSL LIMS Project ID: (If applicable, EMSL will provide)

US State where samples collected: CA

State of Connecticut (CT) must select project location: ☐ Commercial (Taxable) ☐ Residential (Non-Taxable)

Sampled By Name: Mike Bruffey

Sampled By Signature:

No. of Samples in Shipment: 32

Turn-Around-Time (TAT)

☐ 3 Hour ☐ 4-4.5 Hour AHERA ONLY ☐ 6 Hour ☐ 24 Hour ☐ 32 Hour ☐ 48 Hour ☐ 72 Hour ☑ 96 Hour ☐ 1 Week ☐ 2 Week

TEM Air 3-6 Hour, please call ahead to schedule. 32 Hour TAT available for select tests only; samples must be submitted by 11:30 am.

Test Selection

PCM Air

☐ NIOSH 7400
☐ NIOSH 7400 w/ 8hr. TWA

PLM - Bulk (reporting limit)

☑ PLM EPA 600/R-93/116 (<1%)
☐ PLM EPA NOB (<1%)
☐ POINT COUNT
☐ 400 (<0.25%) ☐ 1,000 (<0.1%) ☐ 1,200 (<0.08%)
POINT COUNT w/ GRAVIMETRIC
☐ 400 (<0.25%) ☐ 1,000 (<0.1%) ☐ 1,200 (<0.08%)

TEM - Air

☐ AHERA 40 CFR, Part 763
☐ CARB Modified AHERA
☐ NIOSH 7402
☐ EPA Level II
☐ ISO 10312*

TEM - Bulk

☐ TEM EPA NOB
☐ TEM EPA 600/R-93/116 w Milling Prep (0.1%)

TEM - Settled Dust

☐ Microvac - ASTM D5755
☐ Wipe - ASTM D6480
☐ Qualitative via Filtration Prep
☐ Qualitative via Drop Mount Prep

Soil - Rock - Vermiculite (reporting limit)*

☐ PLM CARB 435 - Level A (<0.25%)
☐ PLM CARB 435 - Level B (<0.1%)
☐ TEM CARB 435 - Level B (<0.1%)
☐ TEM CARB 435 - Level C (<0.01%)
☐ CARB Guidance Compliance Prep
☐ PLM EPA 600/R-93/116 with milling prep (<0.25%)
☐ PLM EPA 600/R-93/116 with milling prep (<0.1%)
☐ TEM EPA 600/R-93/116 with milling prep (<0.1%)

Other

*Please call with your project-specific requirements.

☐ Positive Stop - Clearly Identified Homogeneous Areas (HA) | Filter Pore Size (Air Samples) ☐ 0.8um ☐ 0.45um

Sample Number	Sample Location / Description	~~Volume, Area or Homogeneous Area~~	Date / Time Sampled ~~(Air Monitoring Only)~~
1	RR Hall/Drywall/Joint Comp		11-8-24/9:15
2	S Wall/Drywall/Joint Comp		
3	Entry/Drywall/Joint Comp		
4	Entry/Drywall/Joint Comp		
5	Entry/Drywall/Joint Comp		
6	Book Rm/Drywall/Joint Comp		
7	Office/Drywall/Joint Comp		
8	Office/Drywall/Joint Comp		

Special Instructions and/or Regulatory Requirements (Sample Specifications, Processing Methods, Limits of Detection, etc.)

Method of Shipment:	Fed Ex SO	Sample Condition Upon Receipt:	
Relinquished by: Mike Bruffey	Date/Time: 11-8-24/2:40	Received by: Jonathan Sindoro (EFX)	Date/Time 11/11/24 10:15a
Relinquished by:	Date/Time:	Received by:	Date/Time

Controlled Document - COC-51 Asbestos CA Clients R3 03/24/2021

☐ AGREE TO ELECTRONIC SIGNATURE (By checking, I consent to signing this Chain of Custody document by electronic signature.)

EMSL Analytical, Inc.'s Laboratory Terms and Conditions are incorporated into this Chain of Custody by reference in their entirety. Submission of samples to EMSL Analytical, Inc. constitutes acceptance and acknowledgment of all terms and conditions by Customer.

LA TESTING

Asbestos Chain of Custody (Air, Bulk, Soil)
California Customers

EMSL Order Number / Lab Use Only

#332421961

LATesting
5431 Industrial Drive

Huntington Beach, CA 92649
PHONE: (714) 828-4999
EMAIL: huntingtonbeachlab@lat

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Special Instructions and/or Regulatory Requirements (Sample Specifications, Processing Methods, Limits of Detection, etc.)

Sample Number	Sample Location / Description	~~Volume, Area or Homogeneous Area~~	Date / Time Sampled ~~(Air Monitoring Only)~~
9	Conference/Drywall/Joint Comp		11-8-24/9:15
10	Workroom/Drywall/Joint Comp		
11	RR Hall/Base Cove/Mastic		
12	RR Hall/Sheet Floor		
13	Work RM/12x12 Tile/Mastic		
14	Stair Landing/12x12 Tile/Mastic		
15	Entry/Carpet/Mastic		
16	Work Rm/Base Cove/Mastic		
17	WR RR/Sheet Floor		
18	Stair Landing/12x12 Tile/Mastic		
19	Stair Landing/12x12 Tile/Mastic		
20	RR Hall/Carpet/Mastic		
21	Men RR/Drywall/Joint Comp		
22	Janitor/Drywall/Joint Comp		
23	RR Hall/Drywall/Joint Comp		
24	W Single RR/Plaster/S C		
25	W Double/Plaster/S C		
26	Mens/White Cer Tile/Mortar/Gr		
27	Mens/Cer Flr Tile/Mortar		
28	W Single/Y Cer Tile/Mortar/Gr		
29	W Double/Gr Cer Flr Tile		
30	Gray Stucco/Yellow Coating		
31	Gray Stucco/Yellow Coating		
32	Gray Stucco/Yellow Coating		

Method of Shipment: Fed Ex 2D		Sample Condition Upon Receipt:	
Relinquished by: Mike Bruffey	Date/Time: 11-8-24/2:40	Received by:	Date/Time
Relinquished by:	Date/Time:	Received by:	Date/Time

Controlled Document - COC-51 Asbestos CA Clients R3 03/24/2021

☐ AGREE TO ELECTRONIC SIGNATURE (By checking, I consent to signing this Chain of Custody document by electronic signature.)

EMSL Analytical, Inc.'s Laboratory Terms and Conditions are incorporated into this Chain of Custody by reference in their entirety. Submission of samples to EMSL Analytical, Inc. constitutes acceptance and acknowledgment of all terms and conditions by Customer.

STATE OF CALIFORNIA Gavin Newsom, Governor

DEPARTMENT OF INDUSTRIAL RELATIONS
Division of Occupational Safety and Health-Asbestos Certification Unit
1750 Howe Avenue, Suite 460
Sacramento, CA 95825
(916) 574-2993 Office http://www.dir.ca.gov/dosh/asbestos.html actu@dir.ca.gov

904056499C **447**

April 17, 2024

Michael H Bruffey
9517 Carmel Road
Atascadero CA 93422

Dear Certified Asbestos Consultant or Technician:

Enclosed is your certification card. **To maintain your certification, you must abide by the rules printed on the back of the certification card.**

Your certification is valid for a period of one year. If you wish to renew your certification, you must apply for renewal at least 60 days before the expiration date shown on your card. [8 CCR 341.15(h)(1)].

Please hold and do not send copies of your required AHERA refresher renewal certificates to our office until you apply for renewal of your certification.

Certificates must be kept current if you are actively working as a CAC or CSST. The grace period is only for those who are not actively working as an asbestos consultant or site surveillance technician.

Please contact our office at the above address or email w any changes in your contact/mailing information within 15 days of the change.

Sincerely,

Kevin Graulich
Principal Safety Engineer

Attachment: Certification Card

cc: File



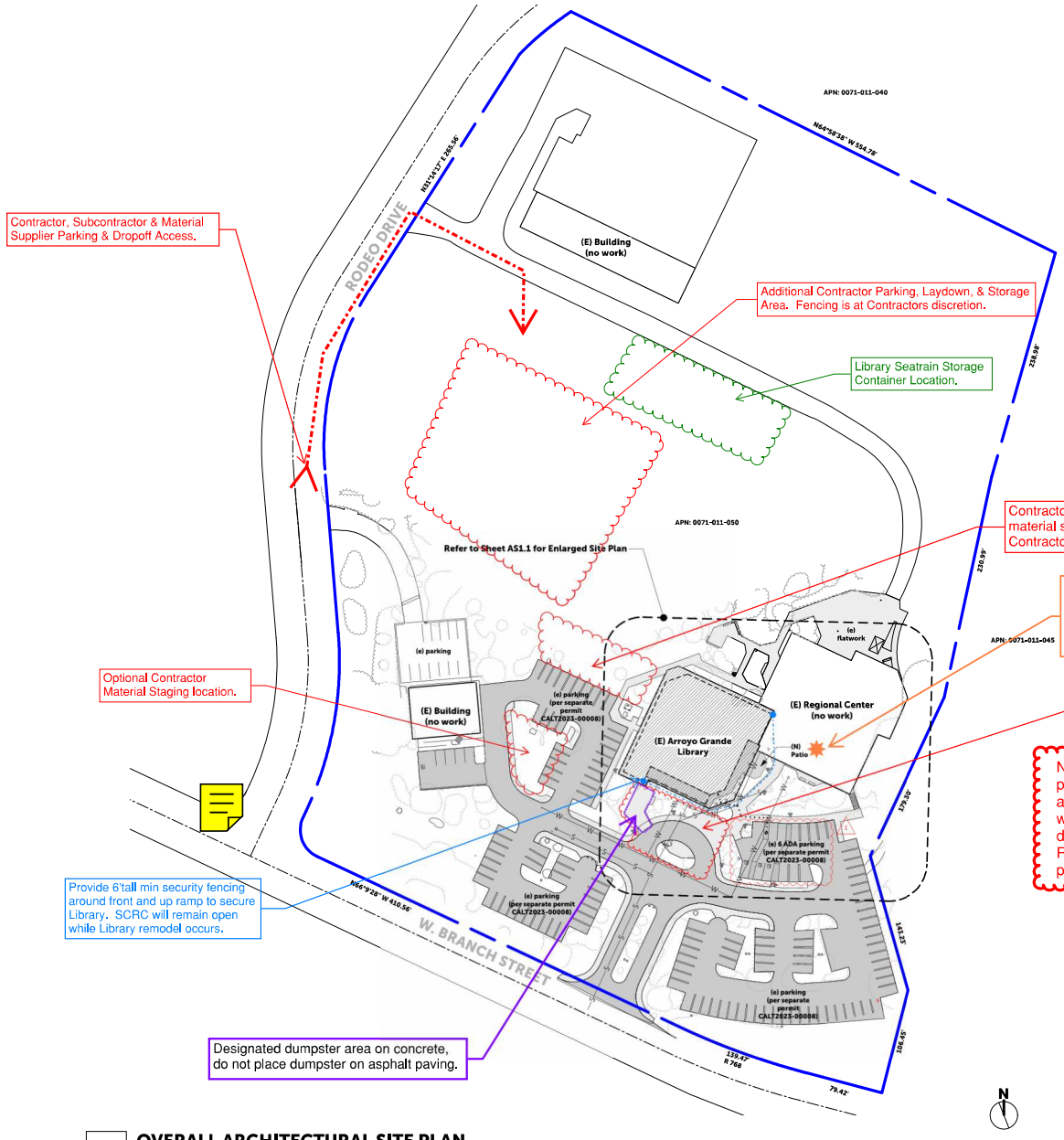
APPENDIX G

STAGING SITE PLAN SHT AS1.0

PAGE LEFT BLANK INTENTIONALLY

SITE PLAN GENERAL NOTES

1. Address Identification. New and existing buildings shall have approved address identification. The address identification shall be legible and placed in a position that is visible from the street or road fronting the property. Address identification characters shall contrast with their backgrounds and be reflective material. Address numbers shall be Arabic numbers or alphabetic letters. Numbers shall not be spelled out. Each character shall be a minimum of 8 inches for commercial with a minimum stroke width of 1/2 inch. Where required by the fire code official, address identification shall be provided in additional approved locations to facilitate emergency response.
2. Any portion of a fence or other structures within 5' of the building shall be constructed of non-combustible material or approved exterior fire-retardant wood or material that meets the same fire-resistive standards as the exterior walls of the building.
3. Refer to Cal Green Notes and Checklist for site related requirements.
4. Walks and sidewalks shall have a continuous common surface, not interrupted by steps or by abrupt changes in level exceeding 1/2", and shall be a minimum of 48" in width. Walk and sidewalk surface cross slopes shall not exceed 1:50 (2% slope). Walk and sidwalk surfaces shall be slip resistant.



SITE LEGEND

- Existing Building
- Existing Building (no work)
- Existing Asphalt Parking
- Existing Concrete
- W — Water Line
- E — Electric Line
- S — Sewer Line
- GAS — Gas Line
- OH — Overhead Line
- Fire Hydrant
- Power/Utility Pole
- Pole Light
- S — Sewer Manhole

1 OVERALL ARCHITECTURAL SITE PLAN

Scale: 1:660

REISS DESIGN STUDIO, PC

(805) 706-0645
WWW.REISSDESIGNSTUDIO.COM
735 TANK FARM ROAD, SUITE 150
SAN LUIS OBISPO, CA 93401

All reports, drawings, specifications, computer files, field data, notes and other documents and instruments prepared by REISS DESIGN STUDIO, PC as instruments of service shall remain the property of REISS DESIGN STUDIO, PC. REISS DESIGN STUDIO, PC shall retain all common law, statutory and other reserved rights, including, without limitation, the copyrights thereto.

PROJECT:
Renovation & Addition

Arroyo Grande Library
APN: 007-011-050
800 W. Branch Street
Arroyo Grande, CA 93420

CLIENT:
County of San Luis Obispo
Department of Public Works
County Goverment Center,
Room 206
San Luis Obispo, CA 93408

SHEET CONTENTS:
OVERALL ARCHITECTURAL SITE PLAN

CONSULTANT:

STAMP:
LICENSED ARCHITECT C-32913 SHANA MARIE REISS REN. 08-31-25 STATE OF CALIFORNIA

DATE:
April 4, 2024

REVISIONS:
1 Plan Check 1 County of SLO. 10/28/2024

COUNTY OF SLO PLANNING AND BUILDING REVIEWED FOR CODE COMPLIANCE by Matt Varvel Project No: CALT2023-00055 Date: 02/24/2025 The approval of these plans shall not permit violations of county or state laws. The County may revoke this permit or require corrections if they are in error. These approved plans shall be made available when inspections are requested. All changes must be approved.

JOB NUMBER:
2308

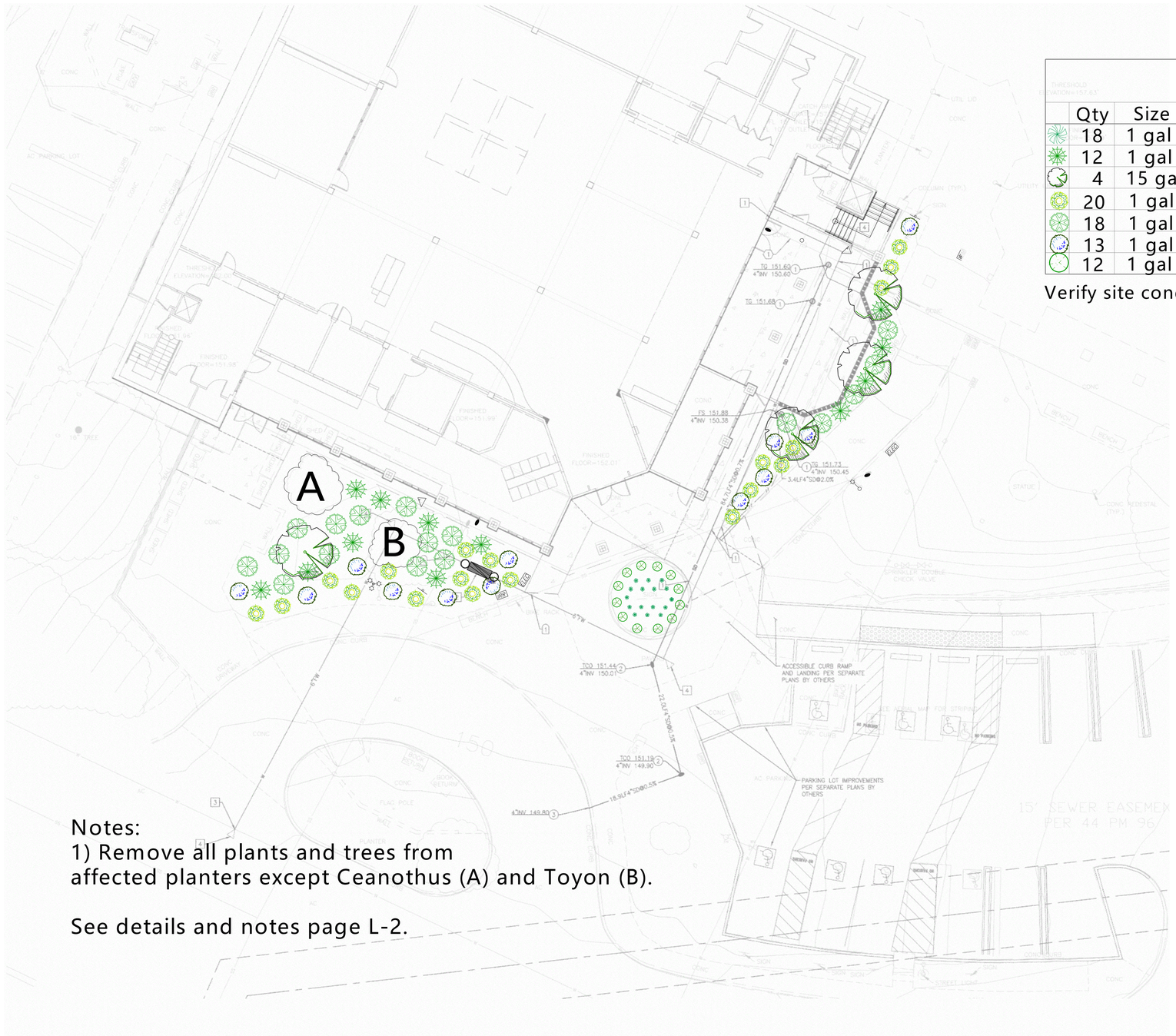
SHEET:
AS1.0

Plot: October 29, 2024 2:19:49 PM I:\Projects\Arroyo Grande Library_CO Title Sheet.dwg

APPENDIX H

LANDSCAPE PLANTING PLAN

PAGE LEFT BLANK INTENTIONALLY



Legend

	Qty	Size	Botanical Name
	18	1 gal	Achillea 'Moonshine'
	12	1 gal	Pennisetum 'Fairy Tails'
	4	15 gal	Cercis occidentalis
	20	1 gal	Cistus salvifolius 'Prostratus'
	18	1 gal	Cistus x pulverulentus 'Sunset'
	13	1 gal	Rosemarinus Prostrata
	12	1 gal	Rosa White Drift

Verify site conditions and plant count per plan.

Notes:
1) Remove all plants and trees from affected planters except Ceanothus (A) and Toyon (B).

See details and notes page L-2.

0' 10' 20'

NORTH

RAINSCAPE
A LANDSCAPE SERVICE COMPANY
A LANDSCAPE SERVICE COMPANY

mailing:
P.O. Box 4132
San Luis Obispo, CA 93403-4132

Office:
205 South Street, Unit A
San Luis Obispo, CA 93401

office: 805-541-8536
Fax: 805-548-8088

general Emaiil:
inquiries@rainscapeslo.com

811
MARK OUT AREA OF WORK
CALL 1.800.422.4133
(UNDER GROUND SERVICE ALERT
3 DAY PRIOR TO START OF DIG)

County of San Luis Obispo
Arroyo Grande Library
Landscape Enhancement Project

These drawings and/or the accompanying specifications are the exclusive property of Rainscape, A Landscape Service Company. There use and publication shall be restricted to the original site for which they were prepared. Re-use, reproduction, or publication by any method, in whole or part, is prohibited except by written permission from Rainscape, A Landscape Service Company.

revisions
1/6/25

designed by:
ah

plan reviewed by:
ah

Date: 12/23/25
scale: 1"=10'

Sheet no.
L-1.0

APPENDIX I

ROOF DECK CLARIFICATION SHTS T1.0 A2.2 A4.5

PAGE LEFT BLANK INTENTIONALLY

Library Renovation & Addition

ARROYO GRANDE LIBRARY

800 West Branch Street, Arroyo Grande, CA 93420

SYMBOLS

- 1 — sheet reference note
- 3A / A9.0 — detail reference: detail number / sheet number
- 1 — door number
- A — window letter
- 1 / A1 — interior elevation: elevation number / sheet number — direction of view
- 1 / A1 — building section: section number / sheet number — direction of view
- 1:12 — roof slope: indicates roof slope and direction of slope
- N — north marker: page north/true north
- Title / Elevation — height/elevation marker
- 1 — revision marker
- international symbol of accessibility

ABBREVIATIONS

ac	air conditioner	in	inch
aff	above finish floor	info	information
al	aluminum	jan	janitor
approx	approximately	lam	laminated
asph	asphalt	lav	lavatory
avg	average	lb/#	pound
bldg	building	lf	linear foot
blk/blkg	block/blocking	max	maximum
bm	beam	mech	mechanical
bot	bottom	manu/mfr	manufacturer
cf	cubic foot	min	minimum
ci	cubic inch	misc	miscellaneous
cj	ceiling joist/control joint	(n)	new
cl	center line	ng	natural grade
clr	clear/clearance	no./#	number
clg	ceiling	nts	not to scale
cmu	concrete masonry unit	o/	over
col	column	oc	on center
conc	concrete	os	occupancy sensor
conn	connection	oz	ounce
const	construction	ph	phone
cont	continuous	pl	plate/property line
ctr	center	plywd	plywood
cw	cold water	prefab	pre-fabricated
cy	cubic yard	psf	pounds per square foot
dbl	double	psi	pounds per square inch
deg	degree	ptdf	pressure treated douglas fir
dept	department	r	riser
det	detail	rd	roof drain
df	douglas fir	ref	refrigerator
dia	diameter	req	required
dim	dimension	rm	room
dn	down	row	right of way
ds	downspout	rwd	redwood
dw	dishwasher	s4s	surfaced 4 sides
ea	each	sc	solid core
elec	electrical	sd	smoke detector
elev	elevation/elevator	sf	square foot
eos	edge of slab	sht	sheet
eq	equal	shtg	sheathing
equip	equipment	sim	similar
exist/(e)	existing	spec	specification
ext	exterior	sst	stainless steel
fau	forced air unit	std	standard
fh	fire hydrant	stl	steel
foc	face of curb	t&g	tongue and groove
fof	face of finish	t	tread
fos	face of stud	thk	thick (ness)
fd	floor drain	tel	telephone
fdn	foundation	temp	temperature
fe	fire extinguisher	toc	top of curb
ff	finish floor	tof	top of footing
fg	finish grade	tow	top of wall
fin	finish	tos	top of slab
fix	fixture	tv	television
flr	floor	typ	typical
fos	face of stud	u.n.o	unless noted otherwise
fp	fireplace or floor plan	vct	vinyl composition tile
fs	finish surface	vert	vertical
ft	foot	v.i.f	verify in field
ftg	footing	w/	with
g	gas	w/o	without
galv	galvanized	wc	water closet
gd	garbage disposal	wd	wood
gyp	gypsum	wh	water heater
hb	hose bibb	wic	walk in closet
hc	hollow core	wp	waterproof
hdr	header	wui	wildland urban interface
hw	hot water	yd	yard

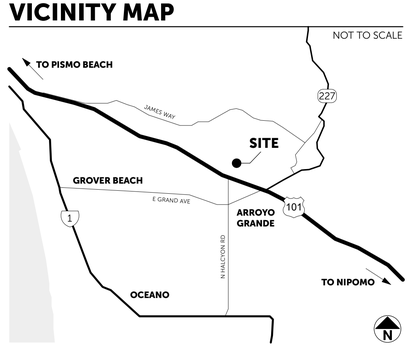
CALIFORNIA CODE REFERENCES

1. This project shall comply w/all current applicable codes and ordinances, including but not limited to:
   2022 California Building Code, Volumes 1 & 2
   2022 California Plumbing Code
   2022 California Mechanical Code
   2022 California Electrical Code
   2022 California Energy Code
   2022 California Green Building Code
   2022 California Fire Code
   2022 California Reference Standards Code
   Grading - CBC Appendix J
   County of San Luis Obispo Building & Construction Ordinance: Title 19
   County of San Luis Obispo Land Use Ordinance: Title 22
   County Fire Code Ordinance - Title 16

DIRECTORY

Owner.	COUNTY OF SAN LUIS OBISPO Department of Public Works County Government Center, Room 206 San Luis Obispo, CA 93408
Architect of Record.	REISS DESIGN STUDIO, PC. Shana Reiss, President, C-32912 735 Tank Farm Road, Suite 150 San Luis Obispo, CA 93401 Phone: (805) 706-0645 Email: shana@reissdesignstudio.com
Civil Engineer.	WALSH ENGINEERING Matthew Walsh, Lic. #79026 1108 Garden Street, Suite 202-204 San Luis Obispo, CA 93401 Phone: (805) 319-4948 Email: matt@walshengineering.net
Structural Engineer.	ASHLEY & VANCE ENGINEERING, INC. Ian Shoebridge, PE S6293 1229 Carmel Street San Luis Obispo, CA 93401 Phone: (805) 545-0010 Email: ian@ashleyvance.com
Electrical Engineer.	GRAY ELECTRICAL CONSULTING + ENGINEERING, CORP Heather Gray, License E18927 PO Box #368 - 2529 Professional Parkway, Suite A Santa Maria, CA 93455 Phone: (805) 361-0525 Email: heather@gececorp.com
Mechanical & Plumbing.	BMA MECHANICAL + Brandon Rodgers, Lic. M33682 689 Tank Farm Road, Suite 240 San Luis Obispo, CA 93401 Phone: (805) 544-4269 Email: brandonr@bmaslo.com
Fire Protection.	ALPHA FIRE UNLIMITED Erik Rheinish CA License C-10, C-16, 761360, ACO #5365, E#2466 650 Sweeney Lane San Luis Obispo, CA 93401 Phone: (805) 541-2525 Email: erik@alphafsa.com

VICINITY MAP



PLANNING INFORMATION

ZONING Public Facility
COMMUNITY/ PLANNING AREA City of Arroyo Grande

FIRE INFORMATION
JURISDICTION Arroyo Grande City Fire
HAZARD ZONE LRA - Local Responsibility Area

SETBACKS/YARDS

Existing to Remain	Front/Street Setback	25'0"
Existing to Remain	Side Yard	25'0"
Existing to Remain	Rear/Other Yard	25'0"

LOT COVERAGE

ALLOWED	Building Coverage	60%
EXISTING TO REMAIN	Building Coverage	10%

MAXIMUM HEIGHT
ALLOWED 35'0"
EXISTING TO REMAIN 28'0"

BUILDING AREAS

Existing Floor Areas Lower Floor

General Library	8,347 S.F.
Restrooms/Circulation/Walls	1,056 S.F.
Storage	114 S.F.
Staff Area & Offices	1,230 S.F.
Total Lower Floor	10,747 S.F.
Upper Floor	
Staff Area	1,220 S.F.
Total Upper Floor	1,220 S.F.
Total Conditioned Existing Building	**11,967 S.F.**
Covered Porch/Entry	1,864 S.F.
Upper Balcony	1,536 S.F.
Total Building Area	15,367 S.F.

Proposed Floor Areas Lower Floor

General Library	8,340 S.F.
Restrooms/Circulation	1,127 S.F.
Storage	227 S.F.
Staff Area & Offices*	1,813 S.F.
(N) Veterans Space*	259 S.F.
Total Lower Floor	11,766 S.F.
Upper Floor	
(N) Mechanical*	192 S.F.
Staff Area	1,220 S.F.
Total Upper Floor	1,412 S.F.
Total Conditioned Proposed Building	**13,178 S.F.**
(E) Covered Entry	356 S.F.
(E) Covered Porch/ Patio	471 S.F.
(E) Upper Balcony	1,536 S.F.
Total Building Area	15,541 S.F.
(N) Uncovered Patio/Flatwork	373 S.F.

PARKING CALCS

Parking calculations for reference, refer to County permit PMT-CALT2023-00008 for parking calculations and information to serve the site.
REQUIRED Libraries 1/500 s.f.
14,467 / 500 = 29 spaces
Per SLO Municipal Code 22.18.050, (1) handicapped parking space is required

REQUIRED SPECIAL INSPECTIONS

The following items shall require special inspections in accordance with CBC Chapter 17, and the Jurisdiction requirements. Confirm any additional special inspection items with Building Inspector at pre-construction meeting. Special inspectors shall be a qualified person who shall demonstrate competence to the satisfaction of the Building Official. Names and qualifications shall be submitted to the Building Department for approval prior to performing work.

1. Refer to sheet T4.1, Required Special Inspections.
2. Also refer to sheet S-1.3, Special Inspections.

1

STATEMENT OF COMPLIANCE

This Project has been designed in accordance with and meets the County adopted building code and ordinance requirements including, but not limited to, the California State Accessibility Standards and I/we will be responsible for all clarifications deemed necessary during the construction phases.

Shana Reiss, C-32912

CONDITIONS

Fire Sprinkler permit and approved plans to be on job site.

1

PROJECT DATA

SCOPE OF WORK
A proposal for the renovation and addition to the Arroyo Grande Library. The project includes: the renovation of 11,967 S.F. of existing conditioned space. There will be a second floor mechanical room added of 192 S.F.. There will be an enclosure of the existing covered walkway space of 1,019 S.F. into conditioned area. The total conditioned space will be 13,178 S.F.. Patio space will include added 373 S.F. of flatwork. The renovation will include an interior layout rework as well as remodel of existing restrooms, including one new family restroom to comply with accessibility and fixture quantity requirements. The second floor will include a new mechanical room to support remodel, but otherwise there is no modification to the existing use or design, so access improvements to the existing stairs are not necessary. The entire library portion of the larger building will receive a new commercial fire sprinkler system and a 2-hour fire rated wall will separate the library portion from the remainder of the larger building (South County Regional Center).

1

The South County Regional Center is NOT part of the scope of this project. The existing covered porch will be partially infilled to create new interior area. The County of San Luis Obispo is the jurisdiction in charge of review on all items of this submittal except fire as that will be reviewed by the City of Arroyo Grande.

The jurisdictions involved have agreed that at such time that the requirements for a fire sprinkler systems outlined in Table 903.2 - Automatic Fire Sprinkler System Requirements for Existing Construction are met within the scope of a project planned at the South County Regional Center, the County of San Luis Obispo will comply accordingly.

PROJECT ADDRESS 800 W Branch St, Arroyo Grande, California 93420

APN 007-011-050

LEGAL DESCRIPTION CY AG PM 44/96 PTN PAR 3

LOT SIZE 13.11 Acres

UTILITIES Electricity - PG&E
Natural Gas - Southern California Gas Company
Water - Golden State Water Company
Sewer - South SLO County Sanitation District

RELEVANT PMTs	CALT2023-00008	Site Work/ Maintenance PMT
	BLD24-000388	Fire Sprinkler & Fire Alarm (City of AG)

1

BUILDING INFORMATION

REQUIRED

FIRE SPRINKLERS	Required	YES
	Proposed	YES

Refer to scope of work above for Fire Sprinkler scope clarification.

CONST. TYPE V-B

OCCUPANCY GROUP A3

ALLOWABLE AREA	6,000 SF. w/o fire sprinklers 24,000 SF. w/ fire sprinklers
MAX. HEIGHT	40' w/o fire sprinklers 60'/(2) Stories w/ fire sprinklers

GENERAL NOTES

1. In the event archaeological resources are unearthed or discovered during any construction activities, the following standards apply:
   a. Construction activities shall cease, and the County/City of jurisdiction shall be notified, so that the extent and location of discovered materials may be recorded by a qualified archaeologist, and disposition of artifacts may be accomplished in accordance with State and Federal law.
   b. In the event archaeological resources are found to include human remains, or in any other case when human remains are discovered during construction, the County/City coroners shall be notified so proper disposition may be accomplished.
2. All materials, finishes, manufactured items, and equipment shall be installed in full accordance with the supplier's or manufacturer's written recommendations or these documents, whichever is more stringent.
3. No hazardous materials which exceed the quantities listed in CBC Tables 307.1 shall be stored and/or used within the building.
4. All notes provided referencing current and adoped local codes, including but not limited to the CBC, CMC, CPC, CRC, CEC, CEnC, Cal Green, and all applicable California Title 24 energy requirements are provided herein for convenience only. Actual codes will always take precedence. It is the responsibility of the Contractor to know, verify, or confirm all code requirements and not rely soley upon listed notes.
5. The buildings described on the following pages are required to be equipped with a fire sprinkler system. Shop drawings shall be submitted and approved by the City/County of jurisdiction Building and Fire Department prior to installation of the system. System design shall meet all requirements of State Fire Marshal, NFPA and City/County of jurisdiction regulations. Sprinkler shop drawings shall be submitted and approved prior to rough framing inspection.
6. Remodeling pre-1978 structures without using lead safe work practices is a violation of the California Health and Safety Code Section 105256. Contractors, Remodelers, and Painters are required to use 'Lead-Safe' work practices pursuant to Title 17, California Code of Regulations Section 36050. Construction debris known to contain lead based paint must be disposed of at an approved location. Contact the Architect.
7. Contractor should schedule periodic site meetings, and foremen for each trade relevant to progress or upcoming work should be included in meeting. Subcontractor to be made aware of this and it shall be outlined in their contract for services with the contractor.
8. Prior to commencement of construction, the General Contractor shall schedule a pre-construction meeting at the project site with all parties to review special inspection requirements, procedures and special inspectors that will be assigned to the project.
9. The General Contractor shall be responsible for verification of all existing conditions and shall field verify all dimensions prior to commencement of work. Any discrepancies shall be brought to the immediate attention of the Architect.
10. The General Contractor shall be responsible for implementing and monitoring the approved erosion and sedimentation control plan. Refer to Civil sheets.
11. The General Contractor shall provide and maintain portable fire extinguishers on-site during construction, per California Fire Code Section 906.
12. Contractor shall review these plans thoroughly, make a detailed site visit, and shall immediately bring any inconsistency, site layout problem, or any other request for clarification to the Architect for resolution prior to the delivery of any bid. Failure to do so shall cause the Contractor to be ineligible for extras relating to such matters.
13. Contractor shall submit reproducible shop drawings to Architect for Owner's, Architect's, and Engineer's approval.
14. Contractor shall coordinate with all trades to provide complete working systems.
15. Contractor is responsible for the safety, actions and conduct of his employees and his subcontractors' employees while in the project area, adjacent areas and in the building and its vicinity.
16. The General Contractor shall compile an Operation & Maintenance Manual to be placed in the building and provided to building Owner at time of final inspection per CalGreen 4.410 or 5.410.
17. Prior to final inspection, General Contractor shall complete and sign CF-6R form. The completed form must be available to the Building Inspector at the final inspection and a copy of the CF-6R form given to the Owner.
18. Refer to Cal Green Notes and Checklist for additional Contractor Responsibility requirements.
19. Drawings of existing facilities are, in general, diagrammatic. Exact locations shall be determined by the Contractor from field measurements taken by Contractor's personnel. Actual arrangement of the work shall follow locations shown on the drawings within the constraints of existing equipment and construction. Dimensions shall govern these drawings and they are not to be scaled. Drawings and notes to drawings are correlative and have equal authority and priority. Should there be discrepancies in themselves or between them, Contractor shall base bid pricing on the most expensive combination of quality and/or quantity of the work indicated. In the event of discrepancies, the appropriate method of performing the work and/or items to be incorporated into the scope of the work shall be determined by the Architect or Engineer.
20. All dimensions to window and doors, including centerlines, are to be maintained. Upon selection of window and door brands if any discrepancies or conflicts are found, whether to accommodate structural, framing, or other, the General Contractor shall notify the Architect immediately and prior to approving any change to sub contractors or installers, so as to allow for coordination of other affected items such as lighting, fixtures, appliances, cabinetry, and finishes.

SHEET INDEX

T1.0	TITLE SHEET
T2.1	OCCUPANCY & EGRESS LOWER FLOOR
T2.2	OCCUPANCY & EGRESS UPPER FLOOR
T3.1	CAL GREEN CHECKLIST
T3.2	CAL GREEN CHECKLIST
T3.3	CAL GREEN CHECKLIST
T4.1	REQUIRED SPECIAL INSPECTIONS 1
ADA1.1	ACCESSIBILITY NOTES & STANDARD DETAILS
ADA1.2	ACCESSIBILITY NOTES & STANDARD DETAILS
AS1.0	OVERALL ARCHITECTURAL SITE PLAN
AS1.1	ENLARGED ARCHITECTURAL SITE PLAN
C1.0	COVER SHEET
C2.0	NOTES
C3.0	GRADING AND DRAINAGE PLAN
C4.0	UTILITY PLAN
C5.0	SECTIONS AND DETAILS
C5.1	SECTIONS AND DETAILS
EC1.0	EROSION AND SEDIMENT CONTROL PLAN
EC2.0	EROSION AND SEDIMENT CONTROL DETAILS
FP 1	GENERAL NOTES, FIRE SPRINKLER SITE PLANS & BUILDING DATA
FP 2	FIRST FLOOR FIRE SPRINKLER PLAN
FP 3	SECOND FLOOR FIRE SPRINKLER PLAN
FP 4	SECTIONALS & FIRE SPRINKLER DATA SHEETS
FP 5	FIRE SPRINKLER PARTS, CUT SHEETS & DETAILS
FP 6	SEISMIC BRACE CALCULATIONS AND BRACE DETAILS
FA-1/3	FIRE ALARM PLANS
FA-2/3	FIRE ALARM PLANS
FA-3/3	FIRE ALARM PLANS
A1.1	DEMOLITION LOWER FLOOR PLAN
A1.2	DEMOLITION UPPER FLOOR PLAN
A2.1	PROPOSED LOWER FLOOR PLAN
A2.2	PROPOSED UPPER FLOOR PLAN
A3.1	ENLARGED RESTROOM PLANS
A4.1	LOWER FLOOR REFLECTED CEILING PLAN
A4.2	UPPER FLOOR REFLECTED CEILING PLAN
A4.5	ROOF PLAN
A5.1	EXTERIOR ELEVATIONS
A5.2	EXTERIOR ELEVATIONS
A6.1	SECTIONS
A6.2	SECTIONS
A7.1	INTERIOR ELEVATIONS
A7.2	INTERIOR ELEVATIONS
A8.1	DOOR, WINDOW, AND FINISH SCHEDULES
A9.1	ARCHITECTURAL DETAILS
A9.2	ARCHITECTURAL DETAILS
A9.3	ARCHITECTURAL DETAILS
A9.4	ARCHITECTURAL DETAILS
S-1.1	STRUCTURAL TITLE SHEET
S-1.2	STRUCTURAL SPECIFICTIONS
S-1.3	SPECIAL INSPECTIONS
S-2.1	FOUNDATION PLAN
S-2.2	FLOOR FRAMING PLAN
S-2.3	ROOF FRAMING PLAN
S-3.1	STRUCTURAL DETAILS
S-3.2	STRUCTURAL DETAILS
S-3.3	STRUCTURAL DETAILS 1
En1.0	ENERGY COMPLIANCE ENVELOPE
En1.1	ENERGY COMPLIANCE ENVELOPE
En1.2	ENERGY COMPLIANCE ENVELOPE
En1.3	ENERGY COMPLIANCE ENVELOPE
M0.0	MECHANICAL NOTES, LEGEND, & ABBREAVIATIONS
M1.0	MECHANICAL SCHEDULES
M1.1	MECHANICAL SCHEDULES
M1.2	MECHANICAL DETAILS
M1.3	MECHANICAL DETAILS
M2.0	MECHANICAL ZONE PLANS
M3.0	MECHANICAL DEMO PLAN - LOWER FLOOR
M3.1	MECHANICAL DEMO PLAN - UPPER FLOOR
M3.2	MECHANICAL DEMO PLAN - ROOF
M4.0	MECHANICAL OVERALL LOWER FLOOR PLAN
M4.1	MECHANICAL ENLARGED LOWER FLOOR PLAN - NORTH
M4.2	MECHANICAL ENLARGED LOWER FLOOR PLAN - SOUTH
M5.0	MECHANICAL OVERALL UPPER FLOOR PLAN
M5.1	MECHANICAL ENLARGED UPPER FLOOR PLAN - NORTH
M5.2	MECHANICAL ENLARGED UPPER FLOOR PLAN - SOUTH
M6.0	MECHANICAL ROOF PLAN
MC1.0	MECHANICAL CONTROLS
MC1.1	MECHANICAL CONTROLS 1
P0.0	PLUMBING NOTES, SCHEDULE, LEGEND, AND ABBREVIATIONS
P0.1	PLUMBING DETAILS
P1.0	PLUMBING OVERALL LOWER FLOOR PLAN - DEMO
P1.1	PLUMBING OVERALL UPPER FLOOR PLAN - DEMO
P2.0	PLUMBING OVERALL LOWER FLOOR PLAN
P2.1	PLUMBING ENLARGED FLOOR PLANS
P3.0	PLUMBING OVERALL UPPER FLOOR PLAN
P4.0	PLUMBING ROOF PLAN 1
E0.1	GENERAL NOTES, SYBMOBLS, AND ABBREAVIATIONS
E0.2	TITLE 24 COMPLIANCE DOCUMENTATION
E0.3	TITLE 24 COMPLIANCE DOCUMENTATION
E1.1	SINGLE LINE DIAGRAM
E1.2	ELECTRICAL SCHEDULES
E1.3	ELECTRICAL SCHEDULES
E1.4	LIGHTING SCHEDULES
E2.1	LOWER FLOOR POWER PLAN
E2.2	UPPER FLOOR POWER PLAN
E2.3	ROOF POWER PLAN
E3.1	LOWER FLOOR LIGHTING PLAN
E3.2	UPPER FLOOR LIGHTING PLAN
E4.1	ELECTRICAL DETAILS
99	TOTAL SHEETS

1

DETACHED SUPPORTING DOCUMENTS

Specifications Book (RDS, V2)	Date: 10/28/2024
Hydraulic Calculations (Alpha Fire, #23-00002)	Date: 06/18/2024
Structural Calculations *(Ashley & Vance,#22373)*	Date: 03/29/2024
Soils Report Memo (Ashley & Vance, #22373)	Date: 10/22/2024
Title 24/Energy Compliance *(BMA, AG Library)*	Date: 10/25/2024
BLD-1031	Date: 10/28/2024
SWCP Waiver	Date: 10/28/2024

1

REQUIRED SEPARATE PERMIT

1. Fire sprinkler plans and calculations - Approved under Arroyo Grande permit BLD24-000388/ 24F-6440, 24F-4677.
2. Fire alarm plans - Approved under Arroyo Grande permit BC25-001000/ 25F-0110.

2

REISS
DESIGN STUDIO, PC
(805) 706-0645
WWW.REISSDESIGNSTUDIO.COM
735 TANK FARM ROAD, SUITE 150
SAN LUIS OBISPO, CA 93401

All reports, drawings, specifications, computer files, field data, notes and other documents and instruments prepared by REISS DESIGN STUDIO, PC as instruments of service shall remain the property of REISS DESIGN STUDIO, PC. REISS DESIGN STUDIO, PC shall retain all common law, statutory and other reserved rights, including, without limitation, the copyrights thereto.

PROJECT:
Renovation & Addition

Arroyo Grande Library
APN: 007-011-050
800 W. Branch Street
Arroyo Grande, CA 93420

CLIENT:
County of San Luis Obispo
Department of Public Works
County Goverment Center,
Room 206
San Luis Obispo, CA 93408

SHEET CONTENTS:
TITLE SHEET

CONSULTANT:

STAMP:
LICENSED ARCHITECT C-32912 SHANA MARIE REISS REN. 09-30-25 STATE OF CALIFORNIA

DATE:
April 4, 2024

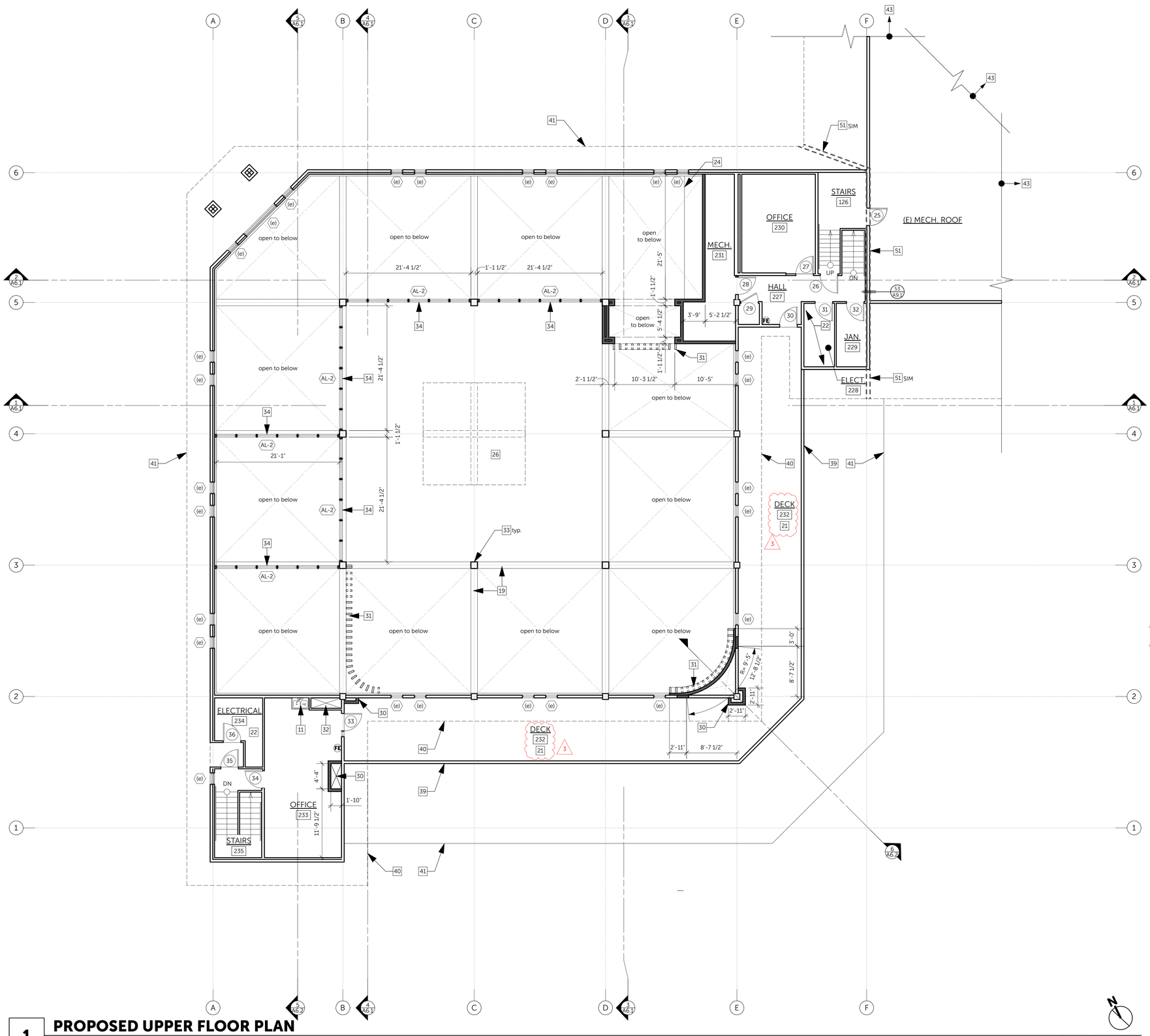
REVISIONS:
1 Plan Check 1 County of SLO, 10/28/2024
2 Plan Check 2 County of SLO, 01/22/2025
3 Owner Revision Roof Deck, 03/10/2025

JOB NUMBER:
2308

SHEET:
T1.0

Contract No. 320196

Date: May 20, 2025 Time: 11:07:54 AM File name: 01_02_Arroyo Grande Library_CA_Title_Site.vwx



1 PROPOSED UPPER FLOOR PLAN

Scale: 1/8" = 1'-0"

FLOOR PLAN GENERAL NOTES

1. Do not scale drawings.
2. All dimensions shall be field verified prior to commencement of work. If any variation, discrepancy or omission is found, the Contractor or Sub-contractor shall notify the Architect in writing and obtain written resolution from Architect prior to proceeding with any work.
3. All new walls shall be 2x6 framing with insulation or per Title 24, U.N.O. Refer to Wall Legend. Infill walls to match (e) wall thickness.
4. STAIRWAYS
   Existing stairwells to remain untouched. No significant work proposed upstairs. Due to no public access upstairs, and offices upstairs matching offices downstairs, the stairwell will remain as it is currently with no modifications.
5. BOOK STACKS
   Library book stacks available for public use shall be 54 inches maximum above the finish floor. Book stacks available for public use may be higher than 54 inches maximum above the finish floor when an attendant is available to assist persons with disabilities. Book stacks restricted to employee use are not required to comply with these requirements. CBC 11B-225.2.3.

FLOOR PLAN REFERENCE NOTES

1. (N) Base Cabinet and Countertop with 6" min. splash
2. (N) Sink, refer to Plumbing Plans and knee clearance detail 21/ADA1.1
3. (N) AMH supplied and installed by owner
4. (N) +34" Book Drop, refer to detail 44/A9.4
5. (N) +34" Counter height Cabinetry, see Electrical Plans for outlet charging locations
6. (N) IDF below, refer to Electrical Plans
7. (N) Bench seating and desk, see Electrical Plans for outlet locations, and detail 22/A9.4.
8. (N) +34" Help Desk, refer to 54/A9.3
9. (N) +42" Laptop Bar, refer to Electrical Plans
10. (N) Drinking Fountain, refer to Plumbing Plans and detail 21/ADA1.2
11. (E) Sink to remain
12. (N) Structural column, refer to Structural Plans
13. (N) Built in wall cubby, refer to detail 24/A9.4.
14. (N) Computer Station - refer to Electrical and Structural Plans. Equipment and furniture by Owner.
15. (N) Copy Station. Provide power/ data, equipment by Owner.
16. (N) Printing Station. Provide power/ data, equipment by Owner.
17. (N) 36" wide gate, refer to Door Schedule on A8.1 and provide alarm
18. Proposed location for electronic catalogs - refer to Electrical and Structural Plans
19. (E) Structural beam
20. Book Stacks, +40" @ 3 shelves, and +66" @ 5 shelves, refer to wall legend. To be OFCI (Owner Furnished, Contractor Installed).
21. (E) Deck, refer to A4.5, reference note #12.
22. Electrical Panel, see Electrical Plans
23. Line indicates floor above
24. Line indicates floor below
25. Soffit above, refer to RCP
26. (N) Skylight above
27. (E) Water Heater, to be reinstalled. Refer to Demo and Plumbing Plans.
28. (N) Fire Riser room
29. (N) Bench and TV area
30. (N) Mechanical Chase
31. (N) Decorative Slat wall, refer to sheet 24/A9.2, 54/A9.2, 24/A9.3
32. (E) Mechanical Chase
33. (E) Structural column
34. (N) Storefront System, refer to A8.1
35. Area of re-poured concrete slab, see Civil Plans.
36. (N) Planter
37. (N) Undercounter Fridge
38. (N) Fence, refer to Civil Plans
39. (E) Parapet to remain
40. Line indicates roof above
41. Line indicates roof below
42. (N) Accent TV wall area
43. Roof connection to remain (not in scope)
44. (N) Water heater, refer to Plumbing Plans
45. (E) Planter to remain, refer to Civil Plans
46. (N) RFID book alarm, supplied and installed by Owner
47. Recessed carpet tiling at entry, see Interior Finish Schedule on sheet A8.1. Carpeted area to be 6-ft wide by 10-ft deep.
48. (N) Self-checkout location. Provide power/data, equipment by Owner.
49. (N) Floor/ Mop sink per Plumbing Plans
50. F.O.L. is acronoym for Friends of Library
51. 2-Hour fire rated wall at second floor. See detail 53/A9.1 for wall assembly. Noted by heavy dashed lines at grid line F, between gridlines 4-6.
    *SIM (At attic only)
52. All 2x4 wood to be pressure treated where it touches CMU
53. (N) Knox Box, per fire deparment jurisdiction requirements. Also see Door Schedule on A8.1 and AS1.1.

WALL LEGEND

- (E) 2x Wall to be demolished
- (E) 2x Wall to remain
- (E) CMU Wall to remain
- (N) 2x6 Wall @ 16" o.c.
- (N) 2x4 Wall @ 16" o.c.
- FE — Fire extinguisher and cabinet. Mount at +48" at centerline of valve handle. At doors maintain strike side clearances

REISS
DESIGN STUDIO, PC
(805) 706-0645
WWW.REISSDESIGNSTUDIO.COM
3055 DUNCAN LANE, SUITE A
SAN LUIS OBISPO, CA 93401

All reports, drawings, specifications, computer files, field data, notes and other documents and instruments prepared by REISS DESIGN STUDIO, PC as instruments of service shall remain the property of REISS DESIGN STUDIO, PC. REISS DESIGN STUDIO, PC shall retain all common law, statutory and other reserved rights, including, without limitation, the copyrights thereto.

PROJECT:

Renovation & Addition

Arroyo Grande Library

APN: 007-011-050
800 W. Branch Street
Arroyo Grande, CA 93420

CLIENT:

County of San Luis Obispo
Department of Public Works
County Goverment Center,
Room 206
San Luis Obispo, CA 93408

SHEET CONTENTS:

PROPOSED UPPER FLOOR PLAN

CONSULTANT:

STAMP:

LICENSED ARCHITECT C-32912 SHANA MARIE REISS RENEW. 09-30-25 STATE OF CALIFORNIA

DATE:

July 2, 2024

REVISIONS:

1 Plan Check 1 County of SLO, 10/28/2024
2 Plan Check 2 County of SLO, 01/22/2025
3 Owner Revision Roof Deck, 03/10/2025

JOB NUMBER:

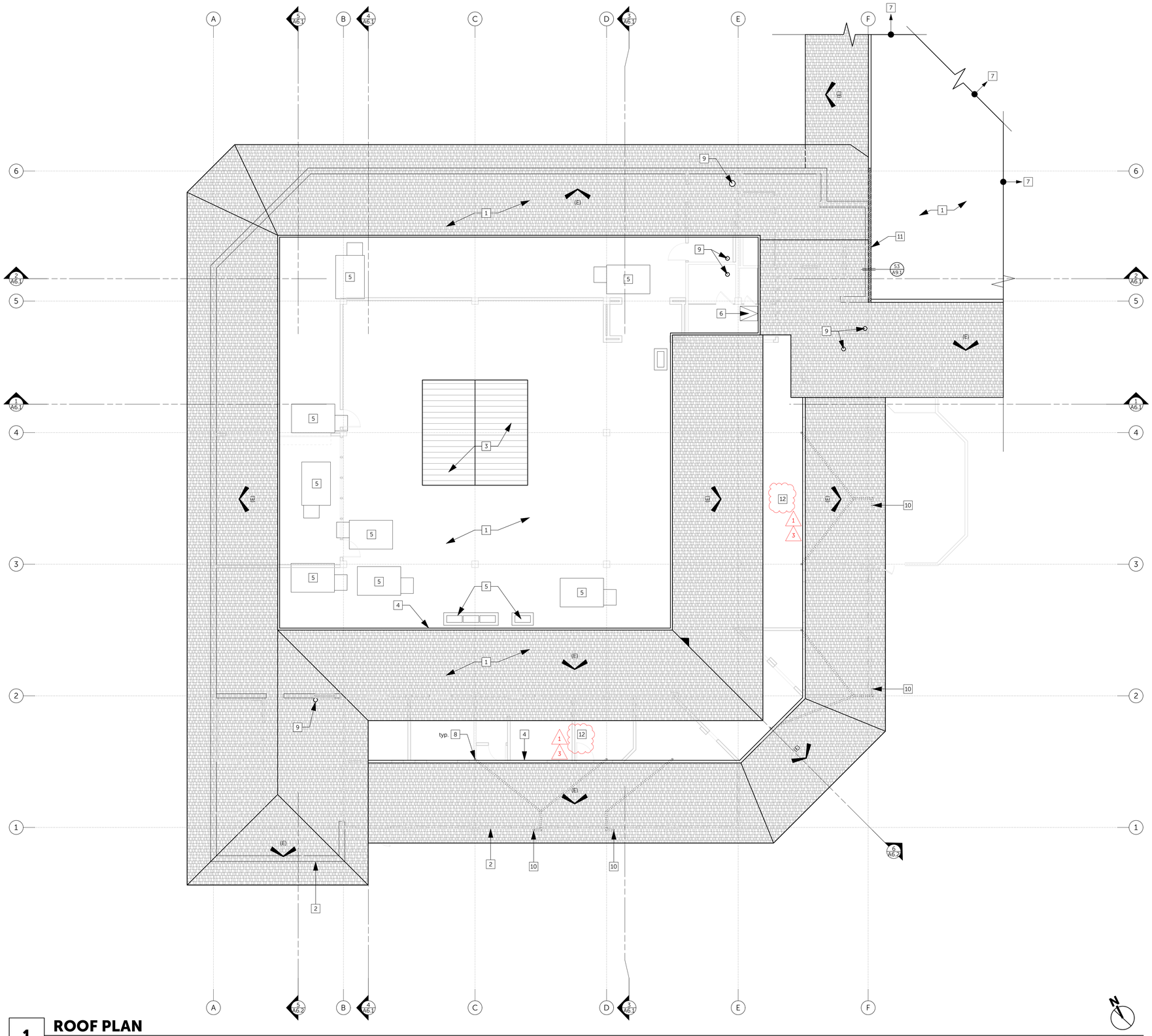
2308

SHEET:

A2.2

Contract No. 320196

Date: March 13, 2025 Time: 5:11:45 PM File name: Arroyo Grande Library_CD Plans.vwx



ROOF GENERAL NOTES

1. Existing roofing to remain. Patch/ repair in kind per manufacturer recommendation

ROOF PLAN REFERENCE NOTES

1. (E) Roofing Material to remain
2. Building footprint below
3. (N) Skylight, Pinnacle 350/600 series or approved equal. Refer to Specifications.
4. (E) Parapet to remain
5. (N) Mechanical equipment, refer to Mechanical Drawings
6. (E) Roof access to remain
7. Roof connection to remain (not in scope)
8. (E) Deck drains
9. (N) Roof jack, refer to Mechanical drawings
10. Intercept existing roof drains and route to new exterior wall/location, terminate at bottom of wall to splash block/hardscape.
11. (N) Two hour fire rated wall, refer to detail 53/A9.1
12. At balcony on second floor, existing roof deck membrane shall be stripped to subsurface and replaced with Dex-O-Tex Dex-Flex, or approved equal. Topping finish surface or applied top coat to be slip and moisture resistant. Installation and flashing per Manufacturer's instructions and warranty. Replace damaged substructure and ceiling joists as necessary with like for like. Existing slope to remain.

1 ROOF PLAN

REISS
DESIGN STUDIO, PC
(805) 706-0645
WWW.REISSDESIGNSTUDIO.COM
3055 DUNCAN LANE, SUITE A
SAN LUIS OBISPO, CA 93401

All reports, drawings, specifications, computer files, field data, notes and other documents and instruments prepared by REISS DESIGN STUDIO, PC as instruments of service shall remain the property of REISS DESIGN STUDIO, PC. REISS DESIGN STUDIO, PC shall retain all common law, statutory and other reserved rights, including, without limitation, the copyrights thereto.

PROJECT:

Renovation & Addition

Arroyo Grande Library

APN: 007-011-050
800 W. Branch Street
Arroyo Grande, CA 93420

CLIENT:

County of San Luis Obispo
Department of Public Works
County Goverment Center,
Room 206
San Luis Obispo, CA 93408

SHEET CONTENTS:

ROOF PLAN

CONSULTANT:

STAMP:

LICENSED ARCHITECT
C- 32912
SHANA MARIE REISS
REN. 09-30-25
STATE OF CALIFORNIA

DATE:

July 2, 2024

REVISIONS:

2 Plan Check 2
County of SLO, 01/22/2025

3 Owner Revision
Roof Deck, 03/10/2025

JOB NUMBER:

2308

SHEET:

A4.5

Contract No. 320196

Date: March 13, 2025 Time: 5:11:45 PM File name: Arroyo Grande Library_CD Plans.vwx

APPENDIX J

PERMIT DOCUMENTS

PAGE LEFT BLANK INTENTIONALLY

Inspection Record Card – Commercial

COUNTY OF SAN LUIS OBISPO
PLANNING & BUILDING DEPT.
976 OSOS ST., ROOM 200
SAN LUIS OBISPO, CA 93408
805-781-5600
www.sloplanning.org

Please call **805-788-6602** or email **pl_inspections@co.slo.ca.us** one business day before an inspection. The approved plans and inspection card MUST be in an obvious place on site the day of inspection.
SITE ID OR ADDRESS MUST BE POSTED IN CONSPICUOUS PLACE.
You may call your inspector between 7:00 – 8:00 a.m. any business day with questions.

PLACE LABEL HERE

CALT2024-00055
PUBLIC WORKS DEPARTMENT / 007-011-050
Assembly Building
800 W BRANCH ST, ARROYO GRANDE 93420
INTERIOR REMODEL (10,747 SF) AND ADDITION (760 SF) TO EXISTING ARROYO GRANDE LIBRARY W/ ACCESSIBILITY UPGRADES...

PLEASE COMPLETE ANY SPECIAL REQUIREMENTS LISTED ON THE PERMIT PRIOR TO REQUESTING INSPECTIONS. PARTIAL APPROVALS RECORDED ON REVERSE SIDE.

EROSION CONTROL MEASURES MUST BE IN PLACE FOR THE DURATION OF PROJECT

FOUNDATIONS: THESE MUST BE APPROVED BEFORE CONCRETE IS PLACED					
Footings	1500		Pregrout/Shotcrete	1900	
Setbacks	1500		Footing (Fence/Ret. Wall)	2100	
Ufer Ground	1500		Waterproofing	2100	
Concrete Slab	1500		Gravity Wall Tieback	2100	
Pier Footings	1500		Wall Drains	2100	
Stem Walls	1500		Electrical Tag/Temporary Power	2600	
SUB-FLOOR AND UNDER SLAB INSPECTIONS:					
Under-floor Mechanical	2550		Under-slab Electrical	2700	
Under-floor Plumbing	2550		Under-slab Mechanical	2700	
Joist and Girders	2550		Under-slab Plumbing	2700	
Hold-down Anchors	2550		Radiant Floor Heating	2050	
Cripple Wall Shear	2550				
***** OSHA APPROVED LADDER MUST BE PROVIDED*****					
FRAMING INSPECTIONS: **SEE SPECIAL INSPECTION REQUIREMENTS**			**SUB TRADE INSPECTIONS:** **THESE MUST BE APPROVED BEFORE INSULATING**		
Lateral Shear	2150		Rough Framing	2350	
Roof Framing	2150		Rough Electrical	2350	
Roof Nailing	2150		Rough Plumbing	2350	
Epoxy Bolts (max 6)	2150		Rough Mechanical	2350	
Metal Building Frame	1750		Fire Damper/Stopping	2350	
Concrete Tilt Up Panels	1100		Roof Drains	2350	
LATH / INSULATION / DRYWALL INSPECTIONS: THESE MUST BE APPROVED BEFORE COVERED					
Stucco Lath	2500		Drywall	1250	
Insulation – Wall	1550		Fire Caulking	1250	
Insulation – Ceiling	1550		Interior Gas Test	1600	
Insulation – Roof Deck	1550		Suspended Ceiling Grid (T-Bar)	2350	
Insulation – Floor	1550				
OUTDOOR UTILITY INSPECTIONS: THESE MUST BE APPROVED PRIOR TO BACKFILL					
Sewer Line	2800		U/G Gas Line	2450	
Back Water Valve	2800		U/G LP Tank	2450	
Septic Tank	2800		U/G Water Lines	2450	
Leach Field	2800		U/G Conduit	2450	
Abandon Septic Tank	1050				
FINAL INSPECTIONS – Call Agencies Prior to Building Final			**DO NOT OCCUPY BUILDING UNTIL FINAL APPROVAL**		
Fire Department			Final Building	1400	
Public Works	805-781-5252		Final Electrical	1400	
Service District			Final Plumbing	1400	
Development Review	805-788-2009		Final Mechanical	1400	
Recycle	805-781-5628		Final Grading	1400	
Health Department	805-781-5544		Erosion Control	1300	
			Accessibility	1400	

*****Roof Nailing Inspection will not be performed in wet, icy, or other hazardous conditions.*****

PARTIAL APPROVAL STATEMENT	COUNTY OF SAN LUIS OBISPO PLANNING & BUILDING DEPT. 976 OSOS ST., ROOM 200 SAN LUIS OBISPO, CA 93408 805-781-5600 www.sloplanning.org
Inspections recorded on this side are supplemental inspection to those listed on the front of the card. **APPROVAL** of each category will be recorded on the front side only. **SITE ID OR ADDRESS MUST BE POSTED IN A CONSPICUOUS PLACE.** You may call your inspector between 7:00 – 8:00 a.m. any business day with questions.	

FOUNDATIONS: (Date, Initial, Description)	

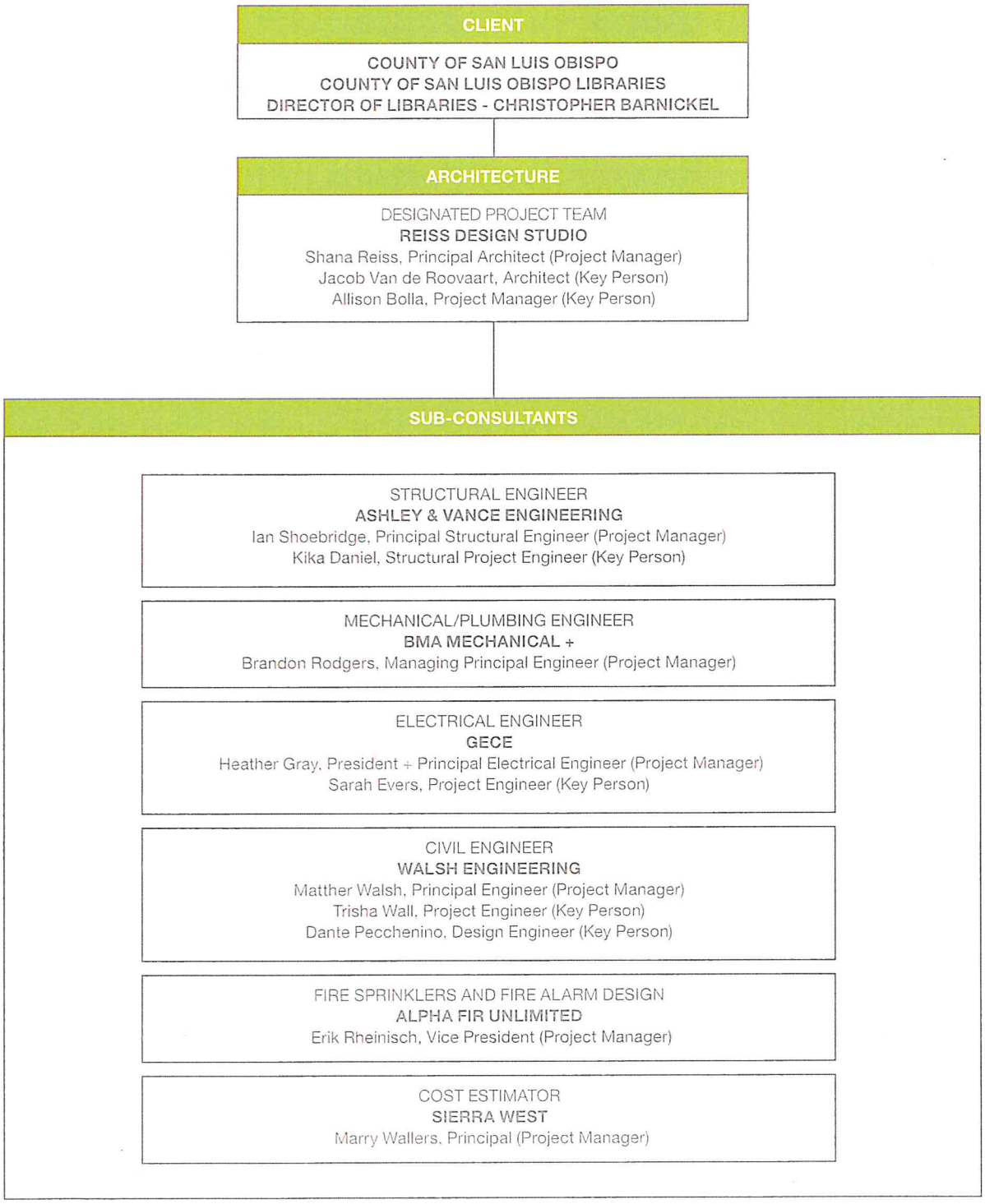
SUB-FLOOR AND UNDER SLAB INSPECTIONS: (Date, Initial, Description)	

FRAMING INSPECTIONS: (Date, Initial, Description)	**SUB TRADE INSPECTIONS: (Date, Initial, Description)**
Concrete Tilt Up Panels By Panel # (1100):	

LATH / INSULATION / DRYWALL INSPECTIONS: (Date, Initial, Description)	
	Type I/II Hood (2650):

OUTDOOR UTILITY INSPECTIONS: (Date, Initial, Description)	
Grease Trap/ Interceptor (2800):	
Dosing Tank (2800):	
Pump (2800):	
Alarms (2800):	
FINAL INSPECTIONS – Call Agencies Prior to Building Final (Date, Initial, Description)	

Organizational Chart



Construction Permit

COUNTY OF SAN LUIS OBISPO DEPARTMENT OF PLANNING & BUILDING

976 OSOS STREET ROOM 300 SAN LUIS OBISPO, CA 93408 (805) 781-5600/711-TTY/TRS

Property Owner: PUBLIC WORKS DEPARTMENT
Permit: Commercial Addition / Alteration Assembly Building
Permit #: CALT2024-00055
Application Date: 07/16/2024
Project #: N/A
Issued: 02/27/2025
Valuation: $1,990,480.86
Expires: 02/28/2028

PROJECT DESCRIPTION

INTERIOR REMODEL (10,747 SF) AND ADDITION (760 SF) TO EXISTING ARROYO GRANDE LIBRARY W/ ACCESSIBILITY UPGRADES TO RESTROOMS (WBS #320196)

PROJECT DETAILS

Project Address:
800 W BRANCH ST, ARROYO GRANDE 93420
Community: N/A
Assessor's Parcel Number: 007-011-050

Occupancy Class: A-3 Churches, Gymnasiums

Lot Size: N/A
Height Allowed: N/A
Height Proposed: N/A
Soil Percolation: N/A
Soil Expansive: N/A

Inspection Area: Zone 100
Setbacks:
Front N/A
Left N/A
Rear N/A
Right N/A
Type of Construction: N/A

APPLICABLE CODES

County Building and Construction Ordinance - Title 19
County Coastal Zone Land Use Ordinance - Title 23
County Land Use Ordinance - Title 22
County Fire Code Ordinance - Title 16
2022 California Code of Regulations Title 24

CALT2024-00055

Construction Permit

COUNTY OF SAN LUIS OBISPO DEPARTMENT OF PLANNING & BUILDING

976 OSOS STREET ROOM 300 SAN LUIS OBISPO, CA 93408 (805) 781-5600/711-TTY/TRS

CONTACTS

Primary Owner
PUBLIC WORKS DEPARTMENT
976 OSOS ST 207
SAN LUIS OBISPO, CA 93408
805-781-5252

Architect
SHANA REISS
805-706-0645

Owner
Michael Hicks
1087 Santa Rosa St
San Luis Obispo, CA 93408
8057815279

Owner/Builder
MARGARET MAYFIELD
1087 SANTA ROSA AVE
SAN LUIS OBISPO, CA 93408
805-781-1523

SPECIAL REQUIREMENTS

Legend - Description of Letter Code in Condition Title
C = Due at or before the plan correction return **I** = Due at or before permit issuance **S** = Required at or before foundation inspection
R = Required at or before framing inspection **F** = Required before final inspection

Prior to Corrections	Status
BLD-Consent of Owner-C Written consent of the land owner or proof of ownership is required prior to issuance of permit. Note: A copy of the property owner's driver's license, form notarization, or other acceptable verification is required to be presented when the permit application is submitted to verify the property owner's signature. Missing owner's signature	**MET**
BLD-Fire Plan Review-C Please contact your local Fire Jurisdiction for review of the fire safety plan prior to issuance and provide a fire safety plan review letter from San Miguel, Templeton, Cambria, Santa Margarita or Five Cities Fire. San Miguel Fire contact: (805) 467-3300 Templeton Fire contact: (805) 434-4911 Cambria Fire contact: (805) 927-6240 Santa Margarita contact: (805)438-3185 Five Cities Fire contact: (805) 473-5490 County of San Luis Obispo Fire: (805) 503-5715 City of Arroyo Grande	**MET**
BLD-Fire Sprinkler Permit Application-C A separate permit application with plans, cut sheets and hydraulic calculations for a NFPA Fire Sprinkler System for this structure must be submitted to the SLO County Building Division and APPROVED prior to issuance of this application. For Templeton, Cambria and San Miguel the fire sprinklers plan shall be submitted to those agencies.Please allow 1-2 weeks plan check time for residential sprinkler systems and 2-4 four weeks for commercial systems. City of Arroyo Grande	**MET**

Construction Permit

COUNTY OF SAN LUIS OBISPO DEPARTMENT OF PLANNING & BUILDING

976 OSOS STREET ROOM 300 SAN LUIS OBISPO, CA 93408 (805) 781-5600/711-TTY/TRS

Prior to Issuance	Status
BLD-CWMP-Recycling Review-I A Construction Waste Management Plan will need to be submitted for your project, 75% of your construction waste will need to be recycled at an IWMA approved facility or provide the detailed Form for recycling.	**MET**
BLD-Owner/Builder Verification-I Owner must read the Owner/Builder Notice, complete and submit the Owner/Builder Verification Form PRIOR to permit being issued - UNLESS the permit is being issued to a licensed contractor.	**MET**

Prior to Foundation	Status
BLD-Misc. Hold-Foundation-S Prior to Foundation please do the following: Provide a complete BLD-1031 form.	**NOT MET**
BLD-Misc. Hold-Foundation-S Prior to Foundation please do the following: preconstruction meeting	**NOT MET**

Prior to Framing	Status
BLD-Fire Sprinkler Plans and Permit Required-R Fire sprinkler permit and approved plans to be on job site by rough framing. City of Arroyo Grande	**NOT MET**

Prior to Final	Status
BLD-CWMP Recycle Compliance-F PRIOR to the final building inspection, the permittee must provide documentation to show compliance with the 75% recycling requirement. To avoid delaying Final Approval, submit ORIGINAL waste handling and recycling receipts at least 7 working days prior to requesting a Final Inspection. Questions may be directed to Rosana Esparza at (805) 781-5600. Failure to provide all receipts or to achieve the 75% recycling requirement will prevent the finaling of your project. You can email the receipts to pl_building-recyclingreceipts@co.slo.ca.us. Please be aware they will need to be readable, clear, and preferably in PDF format, otherwise a printed copy will be needed. Printed copies may be mailed or hand delivered to 976 Osos St., RM 300, San Luis Obispo, CA 93408. Permit number must be included, or receipts will be discarded.	**NOT MET**
BLD-Fire Imprvm't Insp Cal Fire-F Before the building Inspector can do the final building inspection, all fire safety improvements must be installed and inspected by City of AG. These may include completion of said improvements, road signs, address posting, and/or water storage tanks. City of AG	**NOT MET**

Construction Permit

COUNTY OF SAN LUIS OBISPO DEPARTMENT OF PLANNING & BUILDING

976 OSOS STREET ROOM 300 SAN LUIS OBISPO, CA 93408 (805) 781-5600/711-TTY/TRS

STORMWATER NOTICE TO PROPERTY OWNERS

Construction activity resulting in a land disturbance of one acre or more, or less than one acre but part of a larger common plan of development, must obtain the General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit) and prepare a Stormwater Pollution Prevention Plan (SWPPP). Construction activity subject to this permit includes clearing, grading, and disturbances to the ground such as stockpiling or excavation.

The Construction General Permit for Stormwater requires property owners, to be responsible for managing stormwater runoff from your site during and after construction. To ensure that construction does not result in stormwater pollution, the owner and their representative in charge of construction are required to utilize Best Management Practices to minimize or eliminate pollutants in stormwater discharge. Construction Best Management Practices are structural controls and practices that primarily emphasize pollution prevention and erosion and sediment control.

This is brought to your attention to ensure that you are aware of the need to implement Best Management Practices for the duration of your construction project and in accordance with post-construction stormwater requirements. Failure to do so may result in the suspension of building permits, a stop-work order, or enforcement action by County Code Enforcement or the Regional Water Quality Control Board.

For additional information on the construction General Permit for Stormwater, please review the Frequently Asked Questions:

http://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.shtml

You may also contact the following County or Regional Water Quality Control Board Staff:

County: Anthony Schuetze (805) 781-5602 or aschuetze@co.slo.ca.us
Water Board: David Innis (805) 549-3150 or david.innis@waterboards.ca.gov

Construction Permit

COUNTY OF SAN LUIS OBISPO DEPARTMENT OF PLANNING & BUILDING

976 OSOS STREET ROOM 300 SAN LUIS OBISPO, CA 93408 (805) 781-5600/711-TTY/TRS

LEGAL DECLARATIONS

APPLICANT IS (check one) _____ OWNER _____ CONTRACTOR

OWNER-BUILDER DECLARATION (if applicant is owner of the property or owner's autorized agent, he/she must certify one of the following statements to be true):

I, as owner of the property, or my employees with wages as their sole compensation, will do the work and the structure _____ is not offered nor intended for sale.

_____ I, as owner of the property, am exclusively contracting with licensed contractors to construct this project.

WORKER COMPENSATION DECLARATION (every applicant owner must certify one of the following statements to be true):

_____ I hereby affirm that I have a current certificate of consent to insure or a certificate of workers compensation insurance and that I will maintain this certificate until completion of this project.

_____ I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Worker's Compensation Laws of California.

_____ OWNER ACKNOWLEDGES SPECIAL REQUIREMENTS.

NOTICE TO APPLICANT: If, after making any of the foregoing declarations, you become subject to any Labor Code or License Law provision, you must comply with such provisions or this permit shall be deemed revoked.

APPLICANT AGREEMENT: I certify that I have read this permit form and state that the information on it and on the permit application is correct. I agree to comply with all County ordinances and state laws relating to building construction and with all special requirements identified on the permit, and I hereby authorize representatives of the County to enter upon the above-mentioned property for inspection purposes. Every permit issued shall become invalid as follows:

1) Permits for buildings with a floor area of 1000 square feet or greater shall remain valid for a time period of three years from the date of issuance.
2) Permits for buildings with a floor area of less than 1,000 square feet or for other miscellaneous work shall remain valid for a time period of one year from date of issuance.
3) Permits for work that was started and/or completed prior to issuance of the permit (also known as "as-built") shall be valid for a time period of 180 days from the date of issuance.

In order to received this permit you may have paid Public Utility Fees, Road Fees, and/or Air Quality Mitigation Fees in the amounts shown on your Statement of Fees and Project Hold Conditions. Pursuant to the Mitigation Fee Act (California Government Code Section 66000 et seq.), the issuance of this permit begins a 90-day period for protesting such fees.

Signed:_____ Date:_____

Print Name:_____

Person signing here is:

_____ Actual Applicant

_____ Authorized Employee/Partner Applicant

_____ Authorized Agent per Consent of Landowner Form

***** PLEASE CALL USA 1-800-227-2600 UNDERGROUND SERVICE ALERT BEFORE DIGGING *****

Construction Permit

COUNTY OF SAN LUIS OBISPO DEPARTMENT OF PLANNING & BUILDING

976 OSOS STREET ROOM 300 SAN LUIS OBISPO, CA 93408 (805) 781-5600/711-TTY/TRS

Simplified Recycling Plan
Excerpt from the Construction Permit Application

WASTE MANAGEMENT

You need to review the Requirements for Managing Project Waste information on the back of this form and then check the box that fits your project. You must check one of the boxes prior to permit issuance. Note: IWMA Integrated Waste Management Authority.

Are you planning to:

_____ A) use an IWMA-certified construction and demoltion waste recycling facility? or

_____ B) use other recycling and disposal facilities?

If B) is checked, you must fill out Sections 1 & 2 of a Detailed Recycling Plan form and have it approved prior to the permit being issued. For a copy of the Detailed Recycling Plan form, refer to our website at http://www.sloplanning.org or contact Building Division at (805) 781-5628.

LEGAL DECLARATION

I, the owner of record of this property, or authorized agent, have accurately completed this form and declare that all statements herein are true. I acknowledge the responsibility for recycling my project's waste and the penalty for non -compliance. I agree to comply with the requirements of the State Green Code and SLO County's Green Ordinance.

Property Owner/Agent: _____ Date:_____

Seven days prior to Final Inspection you must submit receipts from all of the recycling and landfill facilities that received waste from your project. Final Inspection approval will be delayed until the receipts are submitted and approved. Anticipate when you will need Final Inspection approval.

MEMORANDUM

ASHLEY & VANCE ENGINEERING

DATE	October 22, 2024
TO	Matt Varvel County of San Luis Obispo Department of Planning and Building
PROJECT	Arroyo Grande Library 800 W. Branch Street Arroyo Grande, CA 93420
AV JOB #	22373
SUBJECT	Soils Report Requirement (Plan Check CALT2024-00055, Comments 5 & 6)

COUNTY OF SLO PLANNING AND BUILDING
REVIEWED FOR CODE COMPLIANCE
by Matt Varvel
Project No: CALT2024-00055 Date: 02/24/2025
The approval of these plans shall not permit violations of county or state laws.
The County may revoke this permit or require corrections if they are in error. These approved plans shall be made available when inspections are requested.
All changes must be approved.

COMMENTS:

Soils report requirements were discussed via phone call on 10/21/2024 with Matt Varvel. See below for additional information.

The scope of the project includes a new site retaining wall (5'-4" retained height max), minor changes to the interior of the existing structure, and enclosing an existing covered outdoor space.

All new footings and retaining walls have been designed in accordance with code minimum values and coordinated with as-built plans by Architect Stuhr Dodson Foster Mcclave with approval dated 12/6/78. A bearing pressure of 1500 psf was used in design per code minimums. The depth of new footings matches the depth of the existing according to as-built plans which indicate "2 feet of embedment below finished grade or floor line, whichever is lower".

Furthermore, upon visual observation no significant signs of distress or disturbance were present. In our professional opinion, based on observations and project scope of work, a soils report and corresponding review letter have been deemed unnecessary for this project.

Please do not hesitate to contact my office if you have any further questions or need anything else.

Sincerely,

Emma Wiley

Emma Wiley
Design Engineer
emma@ashleyvance.com
805.545.0010 x224

REGISTERED PROFESSIONAL ENGINEER
IAN J. SHOEBRIDGE
S 6293
STRUCTURAL
STATE OF CALIFORNIA

COUNTY OF SAN LUIS OBISPO
DEPARTMENT OF PLANNING & BUILDING

BLD-1031
03/20/2019

Statement Of Special Inspection Agreement

For a permitted project requiring special inspection, *per California Building Code (CBC) Section 1704*

Project Address: 800 W. Branch Street, Arroyo Grande, CA 93420 Permit No.: CALT2024-00055

BEFORE A PERMIT CAN BE ISSUED, two (2) copies of this agreement shall be completed and submitted to the building official by the owner or the registered design professional in responsible charge acting as the owner's agent and shall include the **required acknowledgments**. A preconstruction conference with the parties involved may be required to review the special inspection requirements and procedures. The Statement Of Required Special Inspections imprinted on a sheet of the project plans shall be considered a part of this agreement.

APPROVAL OF SPECIAL INSPECTORS: Special inspectors may have no financial interest in projects for which they provide special inspection. Special inspectors shall be approved by the building official prior to performing any duties. Special inspectors shall submit their qualifications and are subject to personal interviews for prequalification. Special inspectors shall display approved identification, as stipulated by the building official, when performing the function of special inspector.

Special inspection and testing shall meet the minimum requirements of Sections 1704 and 1705 of the California Building Code. The following conditions are also applicable:

Duties and Responsibilities of the Special Inspector

1. Special inspectors shall review approved plans and specifications for special inspection requirements. Special inspectors will comply with the special inspection requirements found in the Statement of Special Inspections, including work and materials.
2. Special inspectors shall notify contractor personnel of their presence and responsibilities at the job site.
3. Special inspectors shall inspect all work according to the Statement Of Required Special Inspections for which they are responsible for determining compliance with the building department-approved (stamped) plans and specifications, and the applicable provisions of Section 1704 of the CBC.
4. Special inspectors shall bring all nonconforming items to the immediate attention of the contractor. If any such item is not resolved in a timely manner or is about to be incorporated into the work, the design professional in responsible charge and the building official should be notified immediately and the item noted in the special inspectors written report (see Section 1704.2.4). The building official may require this report to be posted in a conspicuous place on the job site. The special inspector should include in the report, as a minimum, the following information about each nonconforming item:
    - Description and exact location
    - Reference to applicable detail of approved plans/specifications

Statement Of Special Inspection Agreement

- Name and title of each individual notified and method of notification
- Resolution or corrective action taken

5. The special inspector shall complete written inspection reports for each inspection visit and provide the reports on a timely basis as determined by the building official. The special inspector or inspection agency shall furnish these reports directly to the building official and to the design professional in responsible charge as required by Section 1704.2.4. These reports should be organized on a daily format and may be submitted weekly at the option of the building official. In these reports, special inspectors should:

- Describe inspections and tests made with applicable locations
- Indicate nonconforming items (discrepancies) and how they were resolved
- List unresolved items, parties notified, and time and method of notification
- Itemize changes authorized by the design professional in responsible charge if not included in nonconforming items

6. Special inspectors or inspection agencies shall submit a final signed report to the building inspector stating that all items requiring special inspection and testing by the Statement Of Required Special Inspections were fulfilled and reported, and, to the best of their knowledge, conform to the approved plans and specifications (see Section 1704.2.4). Items not in conformance, unresolved items or any discrepancies in inspection coverage (i.e., missed inspections, periodic inspection when continuous was required, etc.) shall be specifically itemized in this report.

Owner Responsibilities

The project owner, the design professional in responsible charge or an agent of the owner is responsible for funding special inspection services. Measures should be taken to ensure that the scope of work and duties of the special inspector as outlined in the Statement Of Required Special Inspections are not compromised. The special inspector/agency shall not be in the employ of the contractor, subcontractor or material supplier (see Section 1704.1). In the case of an owner/contractor, the special inspector/agency shall be employed as determined by the Building Official.

Registered Design Professional(s) in Responsible Charge

The design professional (architect, structural engineer) in responsible charge shall be a consenting party by written acknowledgment of the Statement Of Special Inspection Agreement. The duties and responsibilities of the design professional in responsible charge include the following:

1. The Statement Of Required Special Inspections shall be prepared and imprinted on a sheet of the plan set submitted with the permit application, and shall contain the following information:

- Materials, systems, components and work required to have special inspection
- Type and extent of each special inspection
- Type and extent of each test

- Special inspection of required seismic-resistant systems and components
- Special inspection of required wind-resistant systems and components

2. Respond to special inspector reports of uncorrected noncompliant items (discrepancies) and approve remedial measures.
3. Review shop drawings and submit revisions to approved plans. The design professional in responsible charge shall acknowledge and approve shop drawings that may detail structural information. The design professional shall submit to the building official and the special inspector/inspection agency written approval of any verbally approved deviations from the approved plans and shall submit revised plans for to the building official for approval.

Contractor Responsibilities

1. Acknowledgement of awareness of the special requirements contained in the Statement Of Special Inspections.
2. Acknowledgement that control will be exercised to obtain compliance with the construction documents approved by the building official.
3. Establish procedures for exercising control within the contractor's organization, the method and frequency of reporting, and the distribution of the reports, and identify the person(s) exercising such control and their position(s) in the organization.
4. Provide adequate notice to allow the special inspector time to become familiar with the project.
5. Provide the special inspector access to approved plans.
6. Provide, at the job site, all special inspection records submitted by the inspector for review by the building inspector upon request.

Building Department Responsibilities

1. Review submittal documents for compliance with special inspection requirements as outlined in the Statement Of Required Special Inspections. The building official is charged with the legal authority to review the plans, specifications, special inspection program and other submittal documents for compliance with code requirements.
2. Approve the fabricator(s) used for building components installed on-site.
3. Approve the special inspection program submitted by the design professional in responsible charge (see Section 107.1) and may require a preconstruction conference to review the program with all applicable members of the construction team.
4. Monitor special inspection activities at the job site to ensure that qualified special inspectors are performing their duties when work requiring special inspection is in progress.
5. Issuance of stop work orders. The building official is recognized as having the authority to stop work at the job site.

Statement Of Special Inspection Agreement

6. Approval to proceed. There are certain points of completion where work shall not proceed until approval by the building official has been given.
7. Review inspection reports. The building official receives and reviews special inspection progress reports and final reports for compliance with the approved plans, specifications and provisions of the code.
8. Perform final inspection. The building official will not perform the final inspection and approval for a project until the final special inspection report has been reviewed and approved.

Statement Of Special Inspection Agreement

ACKNOWLEDGMENTS

I have read and agree to comply with the terms and conditions of this agreement.

Note: Acceptance by the building official requires **completion of all signature lines** below. Where a special inspection agency is retained to provide multiple special inspection services, the agency may acknowledge this agreement without providing names of individual special inspectors and discipline. However, individual special inspectors shall be named and submitted to the Building Division representative attending the required preconstruction conference at the project site.

Michael Hicks, County SLO PM Owner Name (printed)	 Owner Signature	02/14/2025 Date
Reiss Design Studio, PC Architect Name (printed)	Shana Reiss, President Architect Signature	10/28/2024 Date
Ian Shoebridge Structural Engineer Name (printed)	 Structural Engineer Signature	10/28/2024 Date
N/A Soils Engineer Name (printed)	N/A Soils Engineer Signature	 Date
 Contractor Name (printed)	 Contractor Signature	 Date
 Special Inspection Agency Name (printed)	 Agency Principal Signature	 Date
 Spec. Inspector Name/Discipline (printed)	 Special Inspector Signature	 Date
 Spec. Inspector Name/Discipline (printed)	 Special Inspector Signature	 Date
 Spec. Inspector Name/Discipline (printed)	 Special Inspector Signature	 Date
 Spec. Inspector Name/Discipline (printed)	 Special Inspector Signature	 Date
 Accepted for the Building Division (Staff Name)		 Date

Hydraulic Calculations

for

Project Name: ARROYO GRANDE LIBRARY: (23-00002)
Location: 800 W. BRANCH STREET, ARROYO GRANDE CA, 007-011-050
Drawing Name: 05-27-25 100% Arroyo Grande T.I 23-00002 FIRE SPRI Calculation Date: 5/27/2025

Design

Remote Area Number:	1
Remote Area Location:	FIRST FLOOR ATTIC SPACE
Occupancy Classification:	Light Hazard
	NA
Density	0.10gpm/ft²
Area of Application:	1500ft² (Actual 1555ft²)
Coverage per Sprinkler:	52ft²
Type of sprinklers calculated:	Upright
No. of sprinklers calculated:	17
No. of nozzles calculated:	0

In-rack Demand: N/A gpm at Node: N/A
Hose Streams: 100.00 at Node: 1 Type: Allowance at Source

Total Water Required (including Hose Streams where applicable):
From Water Supply at Node 1: 362.30 @ 36.528 (Safety Margin = 19.000)

Type of System: NFPA 13 WET
Volume of Dry/PreAction/Antifreeze/OtherAgent System: N/A

Name of Contractor: M.E.P.CAD, Inc.
Address: ,
Phone Number:
Name of designer: RTJ
Authority Having Jurisdiction: : SLO CAL FIRE & COUNTY BUILDING DEPARTMENT

Notes:

Automatic peaking results Left: 36.528 Right: 36.528

Summary Notes:

Hydraulic Graph

Water Supply at Node 1

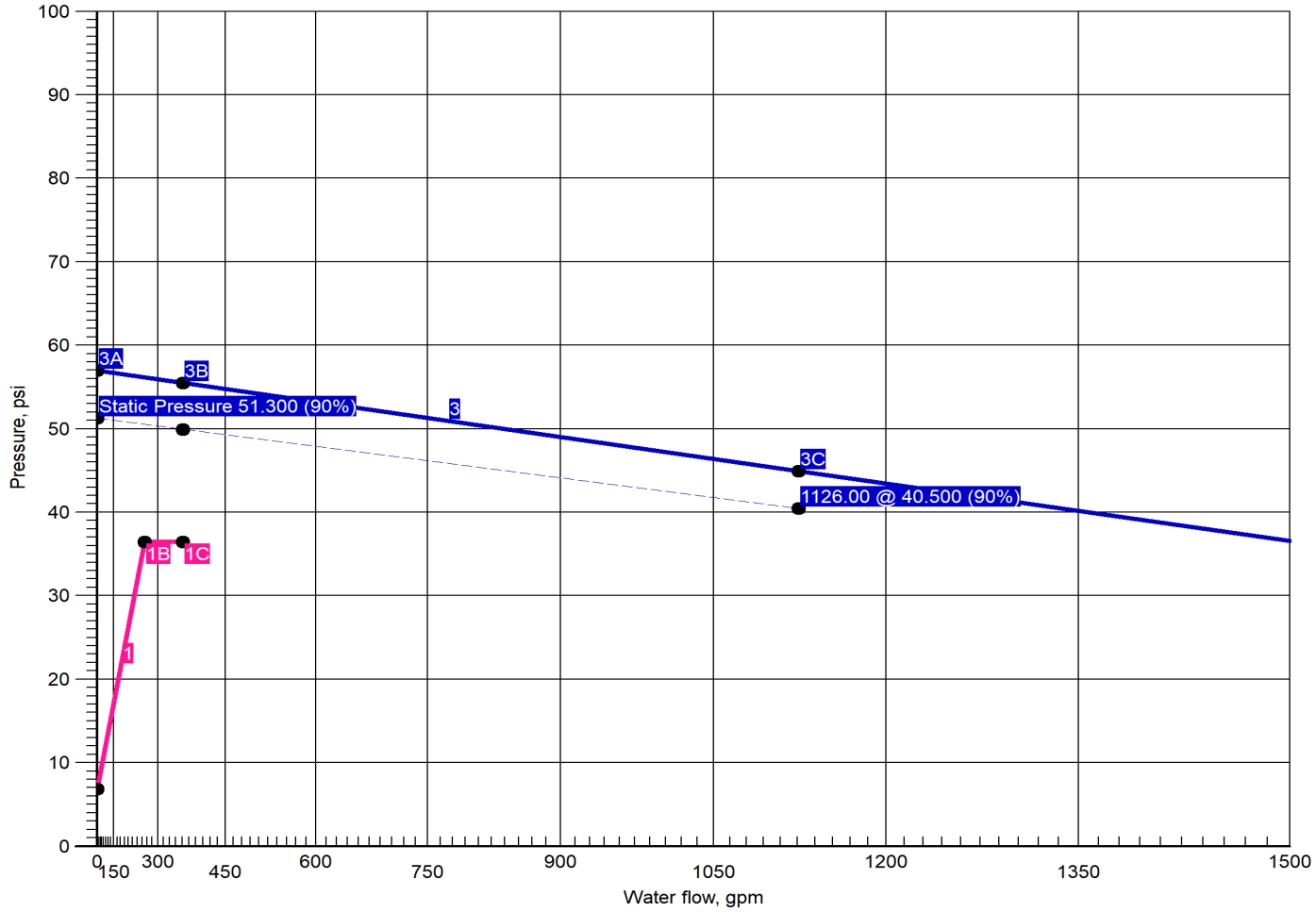
1 System Demand
3 Available Water Supply

Job Name: ARROYO GRANDE LIBRARY

Job Number: 23-00002 - ARROYO GRANDE T.I.

Report Description: Light Hazard (1)

Remote Area Number: 1



Curve	Data Point	Hydraulic Calculation Results	Additional Data
1	1B	Required Pressure at System Demand: 36.528 @ 262.30	Available Flow @ 20 PSI: 2068.28
	1C	Required Pressure at System Demand (Including Hose Allowance at Source): 36.528 @ 362.30	
3	3A	Available Static Pressure at Water Supply at Node 1: 57.000	
	3B	Available Residual Pressure at System Demand: 55.527 @ 362.30	
	3C	Available Residual Pressure & Flow at Water Supply at Node 1: 45.000 @ 1126.00	

Hydraulic Graph

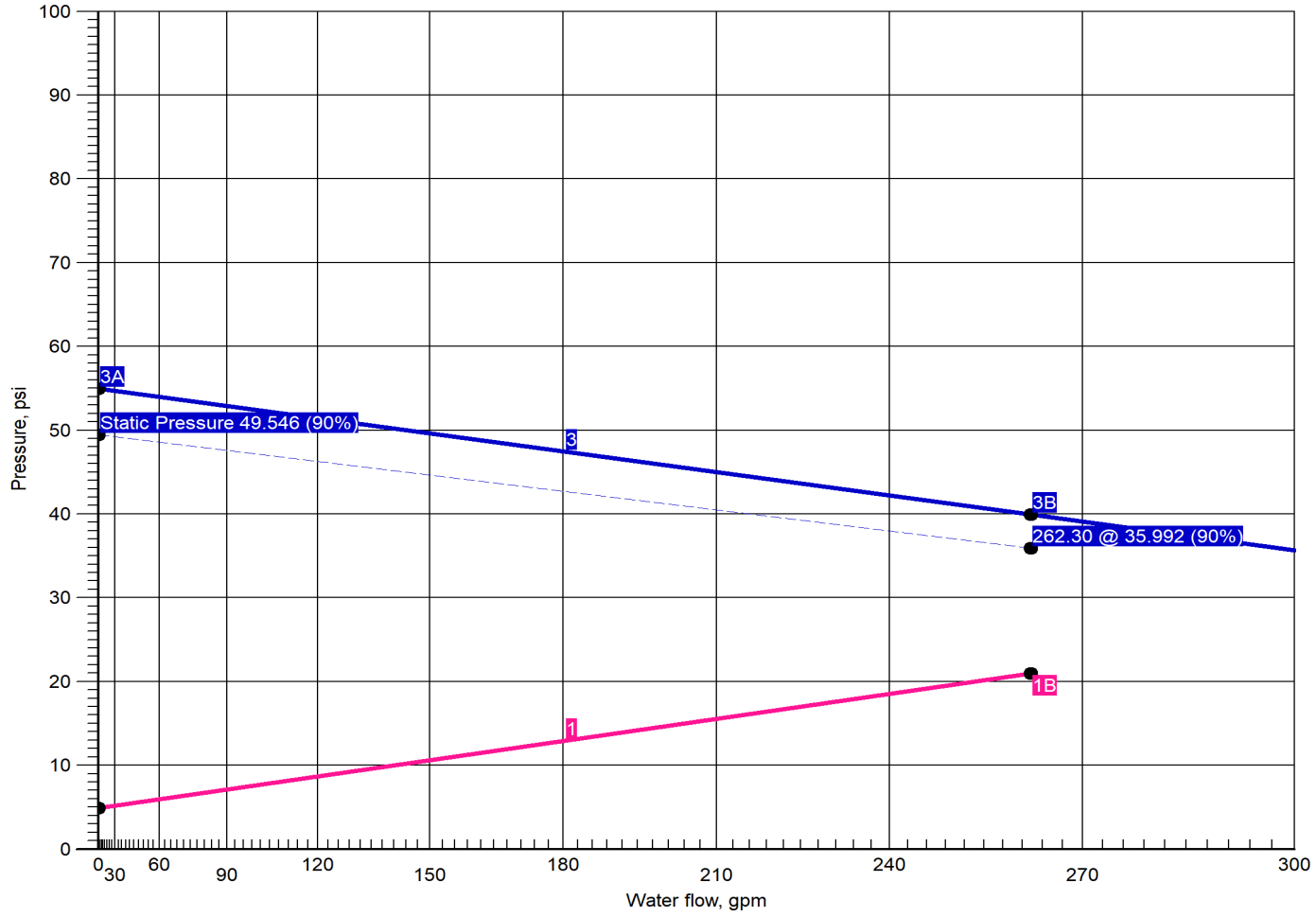
BOR at Node 5

Job Name: ARROYO GRANDE LIBRARY

Job Number: 23-00002 - ARROYO GRANDE T.I.

Report Description: Light Hazard (1)

Remote Area Number: 1



Curve	Data Point	Hydraulic Calculation Results	Additional Data
1	1B	Required Pressure at System Demand: 20.991 @ 262.30	
3	3A	Available Static Pressure at BOR at Node 5: 55.051	
	3B	Available Residual Pressure at System Demand: 39.991 @ 262.30	

Summary Of Outflowing Devices

Device		Actual Flow (gpm)	Minimum Flow (gpm)	K-Factor (K)	Pressure (psi)			
Sprinkler	**101**	**14.82**	**5.20**	**5.6**	**7.000**			
Sprinkler	102	14.82	5.20	5.6	7.002			
Sprinkler	103	14.83	5.20	5.6	7.010			
Sprinkler	104	14.84	5.20	5.6	7.027			
Sprinkler	105	14.88	5.20	5.6	7.056			
Sprinkler	106	14.92	5.20	5.6	7.100			
Sprinkler	107	14.99	5.20	5.6	7.162			
Sprinkler	108	15.07	5.20	5.6	7.245			
Sprinkler	109	15.18	5.20	5.6	7.351			
Sprinkler	110	15.07	5.20	5.6	7.246			
Sprinkler	111	15.32	5.20	5.6	7.485			
Sprinkler	112	15.52	5.20	5.6	7.677			
Sprinkler	113	17.08	5.20	5.6	9.301			
Sprinkler	114	16.71	5.20	5.6	8.899			
Sprinkler	115	16.37	5.20	5.6	8.546			
Sprinkler	116	16.07	5.20	5.6	8.238			
Sprinkler	117	15.81	5.20	5.6	7.972			

Most Demanding Sprinkler Data

Supply Analysis

Node	Name	Static (psi)	Residual (psi) @	Flow (gpm)	Available (psi) @	Total Demand (gpm)	Required Pressure (psi)
1	Water Supply	57.000	45.000	1126.00	55.527	362.30	36.528

Node Analysis

Node Number	Elevation (Foot)	Node Type	Pressure at Node (psi)	Discharge at Node (gpm)	Notes
1	-4'-0	Supply	36.528	262.30	
101	11'-6	Sprinkler	7.000	14.82	
102	11'-6	Sprinkler	7.002	14.82	
103	11'-6	Sprinkler	7.010	14.83	
104	11'-6	Sprinkler	7.027	14.84	
105	11'-6	Sprinkler	7.056	14.88	
106	11'-6	Sprinkler	7.100	14.92	
107	11'-6	Sprinkler	7.162	14.99	
108	11'-6	Sprinkler	7.245	15.07	
109	11'-6	Sprinkler	7.351	15.18	
110	11'-11	Sprinkler	7.246	15.07	
111	11'-11	Sprinkler	7.485	15.32	
112	11'-11	Sprinkler	7.677	15.52	
113	11'-11	Sprinkler	9.301	17.08	
114	11'-11	Sprinkler	8.899	16.71	
115	11'-11	Sprinkler	8.546	16.37	
116	11'-11	Sprinkler	8.238	16.07	
117	11'-11	Sprinkler	7.972	15.81	

Node Number	Elevation (Foot)	Node Type	Pressure at Node (psi)	Discharge at Node (gpm)	Notes
2	-4'-0		36.105	0.00	
3	-4'-0		24.377	0.00	
4	-4'-0		23.956	0.00	
5	0'-6	Gauge	20.991	0.00	BOR
6	8'-6		17.355	0.00	
7	9'-11		8.178	0.00	
8	9'-11		8.180	0.00	
9	9'-11		8.189	0.00	
10	9'-11		8.207	0.00	
11	9'-11		8.238	0.00	
12	9'-11		8.285	0.00	
13	9'-11		8.351	0.00	
14	9'-11		8.439	0.00	
15	9'-11		8.552	0.00	
16	9'-11		8.653	0.00	
17	9'-11		8.908	0.00	
18	9'-11		9.114	0.00	
19	9'-11		10.848	0.00	
20	9'-11		10.419	0.00	
21	9'-11		10.042	0.00	
22	9'-11		9.713	0.00	
23	9'-11		9.429	0.00	

Pipe Information

Node 1 / Node 2	Elev 1 / Elev 2 (Foot)	K-Factor	Flow added this step (q) / Total Flow (Q)	Nominal ID / Actual ID	Fittings & Devices / Equiv. Length (Foot)	Length (Foot) / Fitting (Foot) / Total (Foot)	C Factor / Pf Friction Loss Per Unit (psi)	Total(Pt) / Elev(Pe) / Friction(Pf)	Notes Fitting/Device (Equivalent Length) Fixed Pressure Losses, when applicable, are added directly to (Pf) and shown as a negative value.
101	11'-6	5.6	14.82	1	(See Notes)	1'-7	120	7.000	• • • • • **Route 1** • • • • •
7	9'-11		14.82	1.0490		5'-0 6'-7	0.074703	0.686 0.492	Sprinkler, PO(5'-0)
7	9'-11			3		6'-0	120	8.178	
8	9'-11		14.82	3.2600		 6'-0	0.000299	 0.002	
8	9'-11		14.82	3		8'-0	120	8.180	Flow (q) from Route 2
9	9'-11		29.63	3.2600		 8'-0	0.001077	 0.009	
9	9'-11		14.83	3		8'-0	120	8.189	Flow (q) from Route 3
10	9'-11		44.46	3.2600		 8'-0	0.002281	 0.018	
10	9'-11		14.84	3		8'-0	120	8.207	Flow (q) from Route 4
11	9'-11		59.31	3.2600		 8'-0	0.003886	 0.031	
11	9'-11		14.88	3		8'-0	120	8.238	Flow (q) from Route 5
12	9'-11		74.18	3.2600		 8'-0	0.005879	 0.047	
12	9'-11		14.92	3		8'-0	120	8.285	Flow (q) from Route 6
13	9'-11		89.10	3.2600		 8'-0	0.008252	 0.066	
13	9'-11		14.99	3		8'-0	120	8.351	Flow (q) from Route 7
14	9'-11		104.09	3.2600		 8'-0	0.011002	 0.088	
14	9'-11		15.07	3		8'-0	120	8.439	Flow (q) from Route 8
15	9'-11		119.16	3.2600		 8'-0	0.014130	 0.113	
15	9'-11		15.18	3		5'-8½	120	8.552	Flow (q) from Route 10
16	9'-11		134.35	3.2600		 5'-8½	0.017640	 0.101	
16	9'-11		15.07	3	(See Notes)	7'-10	120	8.653	Flow (q) from Route 9
17	9'-11		149.42	3.2600		4'-0½ 11'-10½	0.021475	 0.255	EE(4'-0½)

Pipe Information

Node 1 / Node 2	Elev 1 / Elev 2 (Foot)	K-Factor	Flow added this step (q) / Total Flow (Q)	Nominal ID / Actual ID	Fittings & Devices / Equiv. Length (Foot)	Length (Foot) / Fitting (Foot) / Total (Foot)	C Factor / Pf Friction Loss Per Unit (psi)	Total(Pt) / Elev(Pe) / Friction(Pf)	Notes Fitting/Device (Equivalent Length) Fixed Pressure Losses, when applicable, are added directly to (Pf) and shown as a negative value.
17	9'-11		15.32	3		8'-0	120	8.908	Flow (q) from Route 11
18	9'-11		164.74	3.2600		8'-0	0.025726	0.206	
18	9'-11		15.52	3	(See Notes)	6'-4	120	9.114	Flow (q) from Route 12
23	9'-11		180.26	3.2600		4'-0½ 10'-4½	0.030387	0.315	EE(4'-0½)
23	9'-11		15.81	3		8'-0	120	9.429	Flow (q) from Route 13
22	9'-11		196.07	3.2600		8'-0	0.035501	0.284	
22	9'-11		16.07	3		8'-0	120	9.713	Flow (q) from Route 14
21	9'-11		212.14	3.2600		8'-0	0.041072	0.329	
21	9'-11		16.37	3		8'-0	120	10.042	Flow (q) from Route 15
20	9'-11		228.51	3.2600		8'-0	0.047127	0.377	
20	9'-11		16.71	3		8'-0	120	10.419	Flow (q) from Route 16
19	9'-11		245.22	3.2600		8'-0	0.053698	0.430	
19	9'-11		17.08	3	(See Notes)	37'-9	120	10.848	Flow (q) from Route 17
6	8'-6		262.30	3.2600		59'-1½ 96'-10½	0.060820	0.614 5.893	2E(9'-5), T(20'-2), PO(20'-2)
6	8'-6			6	(See Notes)	7'-0	120	17.355	
5	0'-6		262.30	6.3570		63'-6 70'-6	0.002353	3.470 0.166	ALV(50'-11), BV(12'-7), BOR
5	0'-6			6	(See Notes)	10'-6	150	20.991	
4	-4'-0		262.30	6.3570		10'-6	0.001557	1.949 1.016	LtE(-1.000)
4	-4'-0			6	(See Notes)	130'-1½	150	23.956	
3	-4'-0		262.30	5.8800		54'-6½ 184'-8	0.002277	0.420	3E(18'-2)
3	-4'-0			6	(See Notes)	17'-7	120	24.377	
2	-4'-0		262.30	6.3570		52'-9½ 70'-4½	0.002353	11.728	3E(17'-7), BFP(-11.562)

Pipe Information

Node 1 / Node 2	Elev 1 / Elev 2 (Foot)	K-Factor	Flow added this step (q) / Total Flow (Q)	Nominal ID / Actual ID	Fittings & Devices / Equiv. Length (Foot)	Length (Foot) / Fitting (Foot) / Total (Foot)	C Factor / Pf Friction Loss Per Unit (psi)	Total(Pt) / Elev(Pe) / Friction(Pf)	Notes (Fitting/Device (Equivalent Length) Fixed Pressure Losses, when applicable, are added directly to (Pf) and shown as a negative value.)
2	-4'-0			6	(See Notes)	128'-7½	150	36.105	
						57'-1½	0.002277		
1	-4'-0		262.30	5.8800		185'-9		0.423	E(18'-2), T(38'-11½), S
			100.00					36.528	Hose Allowance At Source
1			362.30						Total(Pt) Route 1
102	11'-6	5.6	14.82	1	(See Notes)	1'-7	120	7.002	• • • • • **Route 2** • • • • • Sprinkler,
						5'-0	0.074720	0.686	
8	9'-11		14.82	1.0490		6'-7		0.492	PO(5'-0)
								8.180	Total(Pt) Route 2
103	11'-6	5.6	14.83	1	(See Notes)	1'-7	120	7.010	• • • • • **Route 3** • • • • • Sprinkler,
						5'-0	0.074800	0.686	
9	9'-11		14.83	1.0490		6'-7		0.492	PO(5'-0)
								8.189	Total(Pt) Route 3
104	11'-6	5.6	14.84	1	(See Notes)	1'-7	120	7.027	• • • • • **Route 4** • • • • • Sprinkler,
						5'-0	0.074969	0.686	
10	9'-11		14.84	1.0490		6'-7		0.494	PO(5'-0)
								8.207	Total(Pt) Route 4
105	11'-6	5.6	14.88	1	(See Notes)	1'-7	120	7.056	• • • • • **Route 5** • • • • • Sprinkler,
						5'-0	0.075257	0.686	
11	9'-11		14.88	1.0490		6'-7		0.495	PO(5'-0)
								8.238	Total(Pt) Route 5
106	11'-6	5.6	14.92	1	(See Notes)	1'-7	120	7.100	• • • • • **Route 6** • • • • • Sprinkler,
						5'-0	0.075693	0.686	
12	9'-11		14.92	1.0490		6'-7		0.498	PO(5'-0)
								8.285	Total(Pt) Route 6
107	11'-6	5.6	14.99	1	(See Notes)	1'-7	120	7.162	• • • • • **Route 7** • • • • • Sprinkler,
						5'-0	0.076304	0.686	
13	9'-11		14.99	1.0490		6'-7		0.502	PO(5'-0)
								8.351	Total(Pt) Route 7
108	11'-6	5.6	15.07	1	(See Notes)	1'-7	120	7.245	• • • • • **Route 8** • • • • • Sprinkler,
						5'-0	0.077118	0.686	
14	9'-11		15.07	1.0490		6'-7		0.508	PO(5'-0)

Pipe Information

Node 1 / Node 2	Elev 1 / Elev 2 (Foot)	K-Factor	Flow added this step (q) / Total Flow (Q)	Nominal ID / Actual ID	Fittings & Devices / Equiv. Length (Foot)	Length (Foot) Fitting / Total	C Factor / Pf Friction Loss Per Unit (psi)	Total(Pt) / Elev(Pe) / Friction(Pf)	Notes (Fitting/Device (Equivalent Length); Fixed Pressure Losses, when applicable, are added directly to (Pf) and shown as a negative value.)
								8.439	Total(Pt) Route 8
110	11'-11	5.6	15.07	1	(See Notes)	2'-0	120	7.246	• • • • • **Route 9** • • • • • Sprinkler,
16	9'-11		15.07	1.0490		5'-0 / 7'-0	0.077127	0.867 / 0.540	PO(5'-0)
								8.653	Total(Pt) Route 9
109	11'-6	5.6	15.18	1	(See Notes)	1'-7	120	7.351	• • • • • **Route 10** • • • • • Sprinkler,
15	9'-11		15.18	1.0490		5'-0 / 6'-7	0.078163	0.686 / 0.515	PO(5'-0)
								8.552	Total(Pt) Route 10
111	11'-11	5.6	15.32	1	(See Notes)	2'-0	120	7.485	• • • • • **Route 11** • • • • • Sprinkler,
17	9'-11		15.32	1.0490		5'-0 / 7'-0	0.079475	0.867 / 0.556	PO(5'-0)
								8.908	Total(Pt) Route 11
112	11'-11	5.6	15.52	1	(See Notes)	2'-0	120	7.677	• • • • • **Route 12** • • • • • Sprinkler,
18	9'-11		15.52	1.0490		5'-0 / 7'-0	0.081364	0.867 / 0.570	PO(5'-0)
								9.114	Total(Pt) Route 12
117	11'-11	5.6	15.81	1	(See Notes)	2'-0	120	7.972	• • • • • **Route 13** • • • • • Sprinkler,
23	9'-11		15.81	1.0490		5'-0 / 7'-0	0.084254	0.867 / 0.590	PO(5'-0)
								9.429	Total(Pt) Route 13
116	11'-11	5.6	16.07	1	(See Notes)	2'-0	120	8.238	• • • • • **Route 14** • • • • • Sprinkler,
22	9'-11		16.07	1.0490		5'-0 / 7'-0	0.086850	0.867 / 0.608	PO(5'-0)
								9.713	Total(Pt) Route 14
115	11'-11	5.6	16.37	1	(See Notes)	2'-0	120	8.546	• • • • • **Route 15** • • • • • Sprinkler,
21	9'-11		16.37	1.0490		5'-0 / 7'-0	0.089845	0.867 / 0.629	PO(5'-0)
								10.042	Total(Pt) Route 15
114	11'-11	5.6	16.71	1	(See Notes)	2'-0	120	8.899	• • • • • **Route 16** • • • • • Sprinkler,
20	9'-11		16.71	1.0490		5'-0 / 7'-0	0.093273	0.867 / 0.653	PO(5'-0)
								10.419	Total(Pt) Route 16

Pipe Information

Node 1 / Node 2	Elev 1 / Elev 2 (Foot)	K-Factor	Flow added this step (q) / Total Flow (Q)	Nominal ID / Actual ID	Fittings & Devices / Equiv. Length (Foot)	Length (Foot) / Fitting (Foot) / Total (Foot)	C Factor / Pf Friction Loss Per Unit (psi)	Total(Pt) / Elev(Pe) / Friction(Pf)	Notes Fitting/Device (Equivalent Length) Fixed Pressure Losses, when applicable, are added directly to (Pf) and shown as a negative value.
113	11'-11	5.6	17.08	1	(See Notes)	2'-0	120	9.301	• • • • • **Route 17** • • • • •
						5'-0	0.097167	0.867	Sprinkler,
19	9'-11		17.08	1.0490		7'-0		0.680	PO(5'-0)
								10.848	Total(Pt) Route 17

Equivalent Pipe Lengths of Valves and Fittings (C=120 only)

(Actual Inside Diameter / Schedule 40 Steel Pipe Inside Diameter) 4.87 = Factor

C Value Multiplier

Value Of C	100	130	140	150
Multiplying Factor	0.713	1.16	1.33	1.51

Fittings Legend

ALV	Alarm Valve	AngV	Angle Valve	b	Bushing
BalV	Ball Valve	BFP	Backflow Preventer	BV	Butterfly Valve
C	Cross Flow Turn 90°	cplg	Coupling	Cr	Cross Run
CV	Check Valve	DelV	Deluge Valve	DPV	Dry Pipe Valve
E	90° Elbow	EE	45° Elbow	Ee1	11¼° Elbow
Ee2	22½° Elbow	f	Flow Device	fd	Flex Drop
FDC	Fire Department Connection	fE	90° FireLock(TM) Elbow	fEE	45° FireLock(TM) Elbow
flg	Flange	FN	Floating Node	fT	FireLock(TM) Tee
g	Gauge	GloV	Globe Valve	GV	Gate Valve
Ho	Hose	Hose	Hose	HV	Hose Valve
Hyd	Hydrant	LtE	Long Turn Elbow	mecT	Mechanical Tee
Noz	Nozzle	P1	Pump In	P2	Pump Out
PIV	Post Indicating Valve	PO	Pipe Outlet	PrV	Pressure Relief Valve
PRV	Pressure Reducing Valve	red	Reducer/Adapter	S	Supply
sCV	Swing Check Valve	SFx	Seismic Flex	Spr	Sprinkler
St	Strainer	T	Tee Flow Turn 90°	Tr	Tee Run
U	Union	WirF	Wirsbo	WMV	Water Meter Valve
Z	Cap				

Hydraulic Calculations

for

Project Name: ARROYO GRANDE LIBRARY: (23-00002)
Location: 800 W. BRANCH STREET, ARROYO GRANDE CA, 007-011-050
Drawing Name: 05-27-25 100% Arroyo Grande T.I 23-00002 FIRE SPRI Calculation Date: 5/27/2025

Design

Remote Area Number:	2
Remote Area Location:	LIBRARY
Occupancy Classification:	Light Hazard
	NA
Density	0.10gpm/ft²
Area of Application:	1500ft² (Actual 1561ft²)
Coverage per Sprinkler:	324ft²
Type of sprinklers calculated:	Pendent
No. of sprinklers calculated:	9
No. of nozzles calculated:	0

In-rack Demand: N/A gpm at Node: N/A
Hose Streams: 100.00 at Node: 1 Type: Allowance at Source

Total Water Required (including Hose Streams where applicable):
From Water Supply at Node 1: 425.68 @ 48.832 (Safety Margin = 6.184)

Type of System: NFPA 13 WET
Volume of Dry/PreAction/Antifreeze/OtherAgent System: N/A

Name of Contractor: M.E.P.CAD, Inc.
Address: ,
Phone Number:
Name of designer: RTJ
Authority Having Jurisdiction: : SLO CAL FIRE & COUNTY BUILDING DEPARTMENT

Notes:

Automatic peaking results Left: 48.832 Right: 48.832

Summary Notes:

Hydraulic Graph

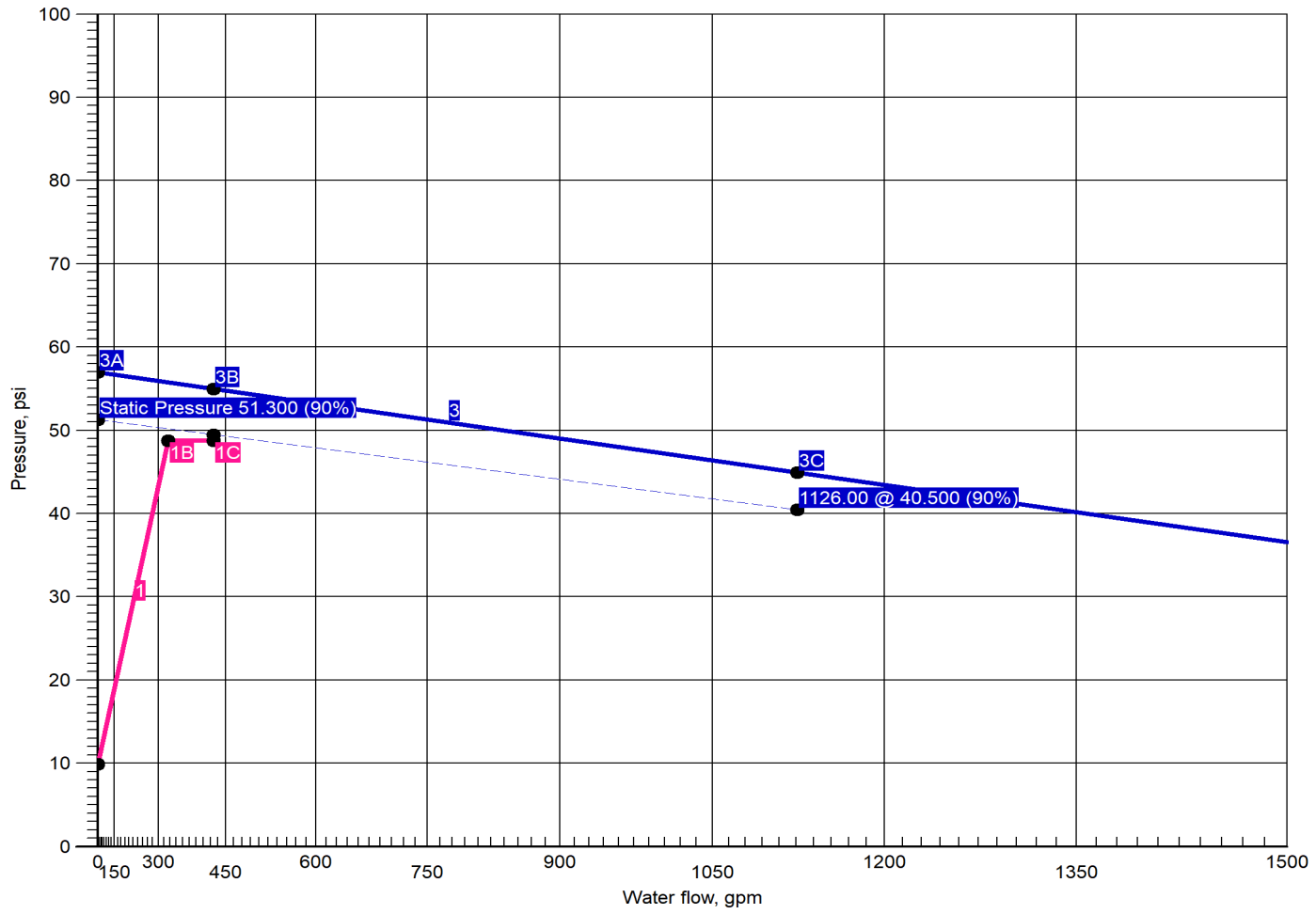
Water Supply at Node 1

Job Name: ARROYO GRANDE LIBRARY

Job Number: 23-00002 - ARROYO GRANDE T.I.

Report Description: Light Hazard (2)

Remote Area Number: 2



Curve	Data Point	Hydraulic Calculation Results	Additional Data
1	1B	Required Pressure at System Demand: 48.832 @ 325.68	Available Flow @ 20 PSI: 2068.28
	1C	Required Pressure at System Demand (Including Hose Allowance at Source): 48.832 @ 425.68	
3	3A	Available Static Pressure at Water Supply at Node 1: 57.000	
	3B	Available Residual Pressure at System Demand: 55.016 @ 425.68	
	3C	Available Residual Pressure & Flow at Water Supply at Node 1: 45.000 @ 1126.00	

BOR at Node 5

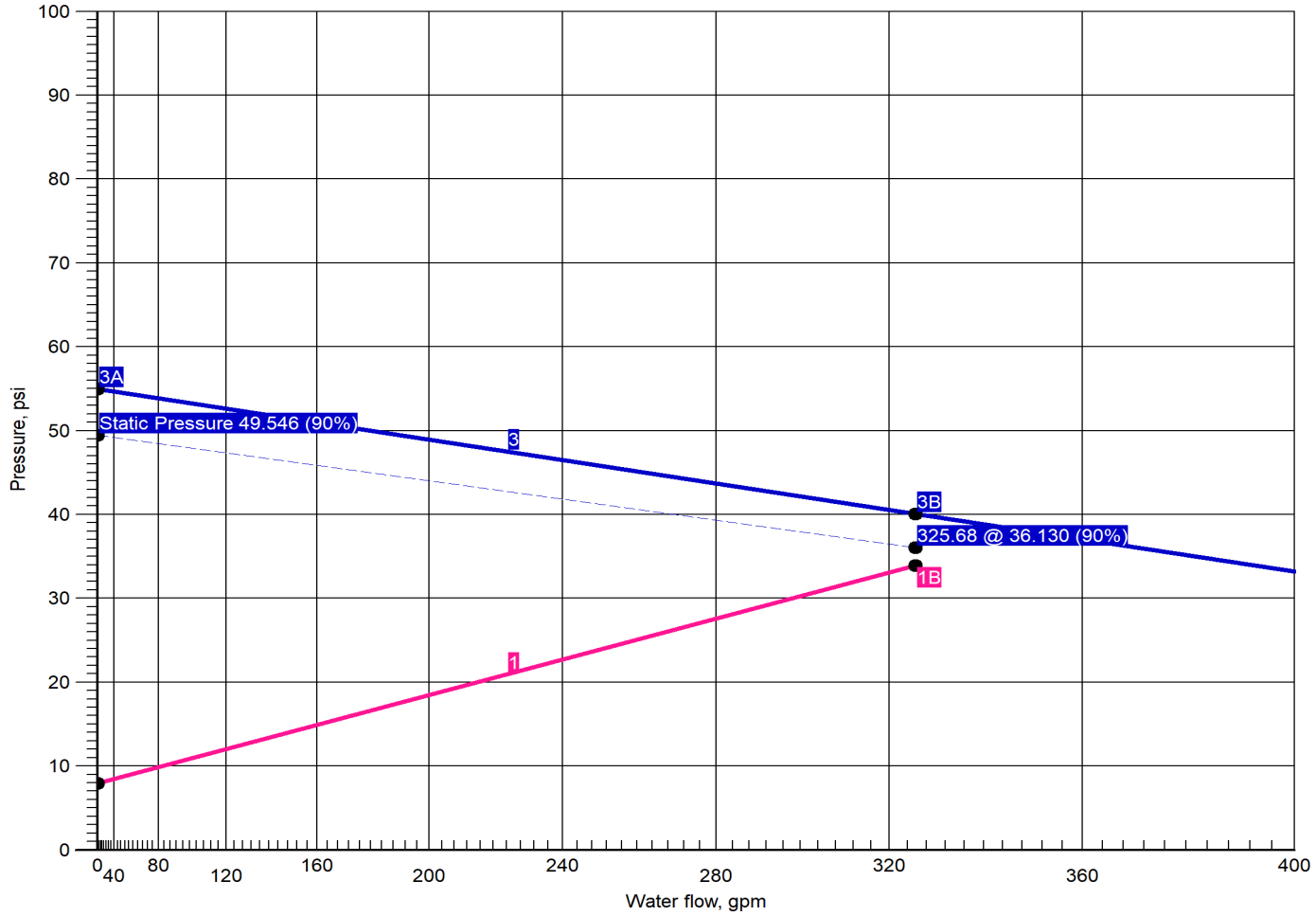
1 System Demand
3 Available Water Supply

Job Name: ARROYO GRANDE LIBRARY

Job Number: 23-00002 - ARROYO GRANDE T.I.

Report Description: Light Hazard (2)

Remote Area Number: 2



Curve	Data Point	Hydraulic Calculation Results	Additional Data
1	1B	Required Pressure at System Demand: 33.961 @ 325.68	
3	3A	Available Static Pressure at BOR at Node 5: 55.051	
	3B	Available Residual Pressure at System Demand: 40.145 @ 325.68	

Summary Of Outflowing Devices

Device	Actual Flow (gpm)	Minimum Flow (gpm)	K-Factor (K)	Pressure (psi)	Density (gpmpft2)	Coverage (Foot)	
Sprinkler 201	33.41	33.04	11.2	8.896	0.10gpm/ft²	324ft²	
Sprinkler 202	33.41	33.04	11.2	8.896	0.10gpm/ft²	324ft²	
Sprinkler 203	33.80	33.04	11.2	9.107	0.10gpm/ft²	324ft²	
Sprinkler 204	33.48	33.04	11.2	8.934	0.10gpm/ft²	324ft²	
Sprinkler 205	33.55	33.04	11.2	8.974	0.10gpm/ft²	324ft²	
Sprinkler 206	33.15	33.04	11.2	8.759	0.10gpm/ft²	324ft²	
⇨ Sprinkler 207	**33.04**	**33.04**	**11.2**	**8.700**	**0.10gpm/ft²**	324ft²	
Sprinkler 208	45.93	33.04	11.2	16.818	0.14gpm/ft²	324ft²	
Sprinkler 209	45.93	33.04	11.2	16.814	0.14gpm/ft²	324ft²	

⇨ Most Demanding Sprinkler Data

Supply Analysis

Node	Name	Static (psi)	Residual (psi) @ Flow (gpm)		Available (psi) @ Total Demand (gpm)		Required Pressure (psi)
1	Water Supply	57.000	45.000	1126.00	55.016	425.68	48.832

Node Analysis

Node Number	Elevation (Foot)	Node Type	Pressure at Node (psi)	Discharge at Node (gpm)	Notes
1	-4'-0	Supply	48.832	325.68	
201	18'-11½	Sprinkler	8.896	33.41	Density: 0.10gpm/ft² Coverage: 324ft²
202	18'-11½	Sprinkler	8.896	33.41	Density: 0.10gpm/ft² Coverage: 324ft²
203	18'-11½	Sprinkler	9.107	33.80	Density: 0.10gpm/ft² Coverage: 324ft²
204	18'-11½	Sprinkler	8.934	33.48	Density: 0.10gpm/ft² Coverage: 324ft²
205	18'-11½	Sprinkler	8.974	33.55	Density: 0.10gpm/ft² Coverage: 324ft²
206	18'-11½	Sprinkler	8.759	33.15	Density: 0.10gpm/ft² Coverage: 324ft²
207	18'-11½	Sprinkler	8.700	33.04	Density: 0.10gpm/ft² Coverage: 324ft²
208	18'-11½	Sprinkler	16.818	45.93	Density: 0.14gpm/ft² Coverage: 324ft²
209	18'-11½	Sprinkler	16.814	45.93	Density: 0.14gpm/ft² Coverage: 324ft²
2	-4'-0		48.200	0.00	
3	-4'-0		37.562	0.00	
4	-4'-0		36.934	0.00	
5	0'-6	Gauge	33.961	0.00	BOR
6	8'-6		30.243	0.00	
24	19'-4		20.575	0.00	
25	19'-4		21.360	0.00	
26	19'-4		20.208	0.00	

Node Number	Elevation (Foot)	Node Type	Pressure at Node (psi)	Discharge at Node (gpm)	Notes
27	19'-4		19.837	0.00	
28	19'-4		19.757	0.00	
29	19'-4		19.925	0.00	
30	19'-4		19.757	0.00	
31	20'-4		19.559	0.00	
32	20'-4		19.432	0.00	
33	20'-4		20.206	0.00	
34	20'-4		20.969	0.00	
35	20'-4		19.257	0.00	
36	20'-4		19.253	0.00	
37	20'-8		21.160	0.00	
38	20'-8		20.529	0.00	
39	20'-8		21.552	0.00	
40	20'-8		20.936	0.00	
41	20'-0½		22.389	0.00	
42	20'-0		21.427	0.00	
43	19'-0½		23.048	0.00	
44	19'-1		21.859	0.00	
45	20'-8		24.568	0.00	

Pipe Information

Node 1 / Node 2	Elev 1 / Elev 2 (Foot)	K-Factor	Flow added this step (q) / Total Flow (Q)	Nominal ID / Actual ID	Fittings & Devices / Equiv. Length (Foot)	Length (Foot) / Fitting (Foot) / Total (Foot)	C Factor / Pf Friction Loss Per Unit (psi)	Total(Pt) / Elev(Pe) / Friction(Pf)	Notes Fitting/Device (Equivalent Length) Fixed Pressure Losses, when applicable, are added directly to (Pf) and shown as a negative value.
207	18'-11½	11.2	33.04	1	(See Notes)	1'-7	120	8.700	• • • • • **Route 1** • • • • •
32	20'-4		33.04	1.0490		32'-9½ 34'-4½	0.329295	-0.590 11.323	Sprinkler, PO(5'-0), fd(27'-9½)
32	20'-4		39.65	2	(See Notes)	6'-0	120	19.432	Flow (q) from Route 12
33	20'-4		72.69	2.1570		12'-3½ 18'-3½	0.042314	 0.774	PO(12'-3½)
33	20'-4		66.16	3	(See Notes)	11'-9½	120	20.206	Flow (q) from Route 6
38	20'-8		138.85	3.2600		13'-5½ 25'-3	0.018749	-0.150 0.473	2fE(6'-8½)
38	20'-8			3		33'-10	120	20.529	
40	20'-8		109.15	3.2600		 33'-10	0.012013	0.000 0.406	
40	20'-8			3	(See Notes)	12'-5½	120	20.936	
42	20'-0		79.83	3.2600		18'-10 31'-3½	0.006734	0.281 0.211	2E(9'-5)
42	20'-0			3		11'-11	120	21.427	
44	19'-1		41.97	3.2600		 11'-11	0.002050	0.407 0.024	
44	19'-1			2	(See Notes)	52'-2½	120	21.859	PO(12'-3½)
43	19'-0½		41.97	2.1570		24'-7½ 76'-10	0.015318	0.013 1.177	PO(12'-3½)
43	19'-0½		283.71	4	(See Notes)	37'-4½	120	23.048	Flow (q) from Route 2
45	20'-8		325.68	4.2600		52'-8 90'-0½	0.024665	-0.701 2.221	4E(13'-2)
45	20'-8			6	(See Notes)	20'-11½	120	24.568	
6	8'-6		325.68	6.3570		93'-0½ 114'-0	0.003511	5.275 0.400	E(17'-7), PO(37'-8½), C(37'-8½)
6	8'-6			6	(See Notes)	7'-0	120	30.243	
5	0'-6		325.68	6.3570		63'-6 70'-6	0.003511	3.470 0.248	ALV(50'-11), BV(12'-7), BOR
5	0'-6			6	(See Notes)	10'-6	150	33.961	
4	-4'-0		325.68	6.3570		 10'-6	0.002324	1.949 1.024	LtE(-1.000)

Pipe Information

Node 1 / Node 2	Elev 1 (Foot) / Elev 2 (Foot)	K-Factor	Flow added this step (q) / Total Flow (Q)	Nominal ID / Actual ID	Fittings & Devices / Equiv. Length (Foot)	Length (Foot) / Fitting (Foot) / Total (Foot)	C Factor / Pf Friction Loss Per Unit (psi)	Total(Pt) / Elev(Pe) / Friction(Pf)	Notes: Fitting/Device (Equivalent Length) Fixed Pressure Losses, when applicable, are added directly to (Pf) and shown as a negative value.
4	-4'-0			6	(See Notes)	130'-1½	150	36.934	
						54'-6½	0.003398		
3	-4'-0		325.68	5.8800		184'-8		0.627	3E(18'-2)
3	-4'-0			6	(See Notes)	17'-7	120	37.562	
						52'-9½	0.003511		
2	-4'-0		325.68	6.3570		70'-4½		10.639	3E(17'-7), BFP(-10.392)
2	-4'-0			6	(See Notes)	128'-7½	150	48.200	
						57'-1½	0.003398		
1	-4'-0		325.68	5.8800		185'-9		0.631	E(18'-2), T(38'-11½), S
			100.00					48.832	Hose Allowance At Source
1			425.68						Total(Pt) Route 1
206	18'-11½	11.2	33.15	1	(See Notes)	1'-7	120	8.759	• • • • • **Route 2** • • • • •
						32'-9½	0.331361	-0.590	Sprinkler,
31	20'-4		33.15	1.0490		34'-4½		11.390	PO(5'-0), fd(27'-9½)
31	20'-4		52.21	2	(See Notes)	12'-5½	120	19.559	Flow (q) from Route 8
						12'-3½	0.056959	0.000	
34	20'-4		85.35	2.1570		24'-9		1.410	PO(12'-3½)
34	20'-4		101.48	4	(See Notes)	12'-4½	120	20.969	Flow (q) from Route 3
						26'-4	0.008823	-0.150	
37	20'-8		186.83	4.2600		38'-8½		0.342	2E(13'-2)
37	20'-8		29.69	4		33'-10	120	21.160	Flow (q) from Route 13
							0.011591		
39	20'-8		216.52	4.2600		33'-10		0.392	
39	20'-8		29.33	4	(See Notes)	12'-4½	120	21.552	Flow (q) from Route 10
						26'-4	0.014661	0.270	
41	20'-0½		245.85	4.2600		38'-8½		0.567	2E(13'-2)
41	20'-0½		37.86	4		11'-11½	120	22.389	Flow (q) from Route 14
							0.019109	0.431	
43	19'-0½		283.71	4.2600		11'-11½		0.229	
								23.048	Total(Pt) Route 2
202	18'-11½	11.2	33.41	1	(See Notes)	0'-0	120	8.896	• • • • • **Route 3** • • • • •
						32'-9½	0.336164	-0.166	Sprinkler,
28	19'-4		33.41	1.0490		32'-9½		11.026	PO(5'-0), fd(27'-9½)

Pipe Information

Node 1 / Node 2	Elev 1 / Elev 2 (Foot)	K-Factor	Flow added this step (q) / Total Flow (Q)	Nominal ID / Actual ID	Fittings & Devices / Equiv. Length (Foot)	Length (Foot) / Fitting (Foot) / Total (Foot)	C Factor / Pf Friction Loss Per Unit (psi)	Total(Pt) / Elev(Pe) / Friction(Pf)	Notes (Fitting/Device (Equivalent Length); Fixed Pressure Losses, when applicable, are added directly to (Pf) and shown as a negative value.)
28	19'-4			2		10'-0	120	19.757	
30	19'-4		0.80	2.1570		10'-0	0.000010	0.000	
30	19'-4		33.41	2		7'-7½	120	19.757	Flow (q) from Route 4
27	19'-4		34.20	2.1570		7'-7½	0.010492	0.080	
27	19'-4		33.48	2		10'-0	120	19.837	Flow (q) from Route 5
26	19'-4		67.68	2.1570		10'-0	0.037081	0.371	
26	19'-4		33.80	2	(See Notes)	2'-4½	120	20.208	Flow (q) from Route 7
25	19'-4		101.48	2.1570	(See Notes)	12'-3½ / 14'-8	0.078451	-0.000 / 1.152	PO(12'-3½)
25	19'-4			4		11'-9½	120	21.360	
34	20'-4		101.48	4.2600		11'-9½	0.002852	-0.425 / 0.034	
								20.969	Total(Pt) Route 3
201	18'-11½	11.2	33.41	1	(See Notes)	0'-0	120	8.896	• • • • • **Route 4** • • • • • Sprinkler,
30	19'-4		33.41	1.0490	(See Notes)	32'-9½ / 32'-9½	0.336166	-0.166 / 11.026	PO(5'-0), fd(27'-9½)
								19.757	Total(Pt) Route 4
204	18'-11½	11.2	33.48	1	(See Notes)	0'-0	120	8.934	• • • • • **Route 5** • • • • • Sprinkler,
27	19'-4		33.48	1.0490	(See Notes)	32'-9½ / 32'-9½	0.337472	-0.166 / 11.069	PO(5'-0), fd(27'-9½)
								19.837	Total(Pt) Route 5
205	18'-11½	11.2	33.55	1	(See Notes)	0'-0	120	8.974	• • • • • **Route 6** • • • • • Sprinkler,
29	19'-4		33.55	1.0490	(See Notes)	32'-9½ / 32'-9½	0.338894	-0.166 / 11.116	PO(5'-0), fd(27'-9½)
29	19'-4		32.61	2	(See Notes)	6'-0	120	19.925	Flow (q) from Route 11
24	19'-4		66.16	2.1570	(See Notes)	12'-3½ / 18'-3½	0.035556	0.650	PO(12'-3½)
24	19'-4			3		11'-9½	120	20.575	
33	20'-4		66.16	3.2600		11'-9½	0.004758	-0.425 / 0.056	

Pipe Information

Node 1 / Node 2	Elev 1 (Foot) / Elev 2 (Foot)	K-Factor	Flow added this step (q) / Total Flow (Q)	Nominal ID / Actual ID	Fittings & Devices / Equiv. Length (Foot)	Length (Foot) Fitting / Total	C Factor / Pf Friction Loss Per Unit (psi)	Total(Pt) / Elev(Pe) / Friction(Pf)	Notes: Fitting/Device (Equivalent Length) Fixed Pressure Losses, when applicable, are added directly to (Pf) and shown as a negative value.
								20.206	Total(Pt) Route 6
203	18'-11½	11.2	33.80	1	(See Notes)	0'-0	120	9.107	• • • • • **Route 7** • • • • • Sprinkler,
26	19'-4		33.80	1.0490		32'-9½ / 32'-9½	0.343507	-0.166 / 11.267	PO(5'-0), fd(27'-9½)
								20.208	Total(Pt) Route 7
209	18'-11½	11.2	45.93	1	(See Notes)	0'-0	120	16.814	• • • • • **Route 8** • • • • • Sprinkler,
36	20'-4		45.93	1.0490		5'-0 / 5'-0	0.605737	-0.590 / 3.029	PO(5'-0), fd
36	20'-4			2		8'-10	120	19.253	
35	20'-4		6.28	2.1570		8'-10	0.000455	0.004	
35	20'-4		45.93	2		13'-2	120	19.257	Flow (q) from Route 9
31	20'-4		52.21	2.1570		13'-2	0.022940	0.302	
								19.559	Total(Pt) Route 8
208	18'-11½	11.2	45.93	1	(See Notes)	0'-0	120	16.818	• • • • • **Route 9** • • • • • Sprinkler,
35	20'-4		45.93	1.0490		5'-0 / 5'-0	0.605852	-0.590 / 3.029	PO(5'-0), fd
								19.257	Total(Pt) Route 9
40	20'-8			2	(See Notes)	53'-5½	120	20.936	• • • • • **Route 10** • • • • • PO(12'-3½)
39	20'-8		29.33	2.1570		24'-7½ / 78'-1	0.007893	-0.000 / 0.616	PO(12'-3½)
								21.552	Total(Pt) Route 10
28	19'-4		0.80	2		17'-5½	120	19.757	• • • • • **Route 11** • • • • • Flow (q) from Route 3
29	19'-4		32.61	2.1570		17'-5½	0.009604	0.168	
								19.925	Total(Pt) Route 11
36	20'-4		6.28	2		13'-0½	120	19.253	• • • • • **Route 12** • • • • • Flow (q) from Route 8
32	20'-4		39.65	2.1570		13'-0½	0.013790	0.180	
								19.432	Total(Pt) Route 12

Pipe Information

Node 1 / Node 2	Elev 1 / Elev 2 (Foot)	K-Factor	Flow added this step (q) / Total Flow (Q)	Nominal ID / Actual ID	Fittings & Devices / Equiv. Length (Foot)	Length (Foot) Fitting / Total	C Factor / Pf Friction Loss Per Unit (psi)	Total(Pt) / Elev(Pe) / Friction(Pf)	Notes: Fitting/Device (Equivalent Length) Fixed Pressure Losses, when applicable, are added directly to (Pf) and shown as a negative value.
38	20'-8			2	(See Notes)	53'-5½	120	20.529	• • • • • **Route 13** • • • • •
						24'-7½	0.008076		PO(12'-3½)
37	20'-8		29.69	2.1570		78'-1		0.630	PO(12'-3½)
								21.160	Total(Pt) Route 13
42	20'-0			2	(See Notes)	52'-2½	120	21.427	• • • • • **Route 14** • • • • •
						24'-7½	0.012661	-0.011	PO(12'-3½)
41	20'-0½		37.86	2.1570		76'-10		0.973	PO(12'-3½)
								22.389	Total(Pt) Route 14

Equivalent Pipe Lengths of Valves and Fittings (C=120 only)

(Actual Inside Diameter / Schedule 40 Steel Pipe Inside Diameter) 4.87 = Factor

C Value Multiplier

Value Of C	100	130	140	150
Multiplying Factor	0.713	1.16	1.33	1.51

Fittings Legend

ALV	Alarm Valve	AngV	Angle Valve	b	Bushing
BalV	Ball Valve	BFP	Backflow Preventer	BV	Butterfly Valve
C	Cross Flow Turn 90°	cplg	Coupling	Cr	Cross Run
CV	Check Valve	DelV	Deluge Valve	DPV	Dry Pipe Valve
E	90° Elbow	EE	45° Elbow	Ee1	11¼° Elbow
Ee2	22½° Elbow	f	Flow Device	fd	Flex Drop
FDC	Fire Department Connection	fE	90° FireLock(TM) Elbow	fEE	45° FireLock(TM) Elbow
flg	Flange	FN	Floating Node	fT	FireLock(TM) Tee
g	Gauge	GloV	Globe Valve	GV	Gate Valve
Ho	Hose	Hose	Hose	HV	Hose Valve
Hyd	Hydrant	LtE	Long Turn Elbow	mecT	Mechanical Tee
Noz	Nozzle	P1	Pump In	P2	Pump Out
PIV	Post Indicating Valve	PO	Pipe Outlet	PrV	Pressure Relief Valve
PRV	Pressure Reducing Valve	red	Reducer/Adapter	S	Supply
sCV	Swing Check Valve	SFx	Seismic Flex	Spr	Sprinkler
St	Strainer	T	Tee Flow Turn 90°	Tr	Tee Run
U	Union	WirF	Wirsbo	WMV	Water Meter Valve
Z	Cap				

PROJECT PLANS

PAGE LEFT BLANK INTENTIONALLY