

# EMERGENCY GENERATOR INFRASTRUCTURE

At

## **Lakeside Elementary School**

19621 Black Road  
Los Gatos, CA 95033

## TECHNICAL SPECIFICATIONS

March 2025  
MDG # 2424  
DSA V2

## **Lakeside Joint School District**

19621 Black Road  
Los Gatos, CA 95033

ARCHITECT

*McKim Design Group*

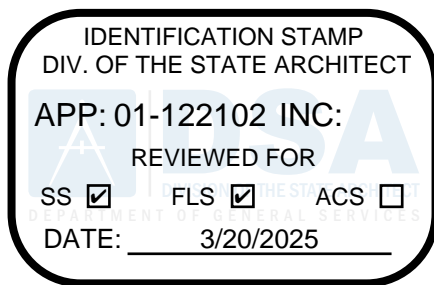
4595 Cherry Ave. 1<sup>st</sup> Floor  
San Jose, CA 95118  
(408) 927.8110

SPECIFICATIONS  
JOB #2424

DSA File No. 43-25  
DSA Application No. 01-122102

**Lakeside Elementary School**  
Emergency Generator Infrastructure

Lakeside Joint School District  
Santa Clara County



*McKim Design Group*  
4595 CHERRY AVENUE, FIRST FLOOR  
SAN JOSE, CA 95118  
(408) 927.8110

Division of the State Architect  
Office of Regulation Services



Architect



Electrical Engineer

TECHNICAL SPECIFICATIONS  
FOR  
**EMERGENCY GENERATOR INFRASTRUCTURE**  
**LAKESIDE ELEMENTARY SCHOOL**  
**Lakeside Joint School District**  
**Los Gatos, CA**

TABLE OF CONTENTS

**DIVISION 0 – PROCUREMENT AND CONTRACTING REQUIREMENTS**

00 01 01	Title Page
00 01 10	Table of Contents (This Document)
00 01 15	List of Drawings, Tables and Schedules
00 11 16	Invitation to Bid
00 21 13	Instructions to Bidders
00 31 19	Existing Conditions ( <b><u>NOT</u></b> part of the Contract Documents)
00 31 32	Geotechnical Data ( <b><u>NOT</u></b> part of the Contract Documents)
00 41 13	Bid Form
00 43 13	Bid Bond (Security)
00 43 36	Designated Subcontractors List
00 45 01	Site-Visit Certification
00 45 19	Noncollusion Affidavit
00 45 22	Iran Contracting Act Certification
00 45 26	Worker's Compensation Certification
00 45 50	Prevailing Wage and Related Labor Requirements Certification
00 45 55	Disabled Veteran's Business Enterprise Participation Certification
00 45 60	Drug-Free Workplace Certification
00 45 65	Tobacco-Free Environment Certification
00 45 70	Hazardous Materials Certification
00 45 75	Lead-Based Paint Certification
00 45 80	Imported Materials Certification
00 45 85	Criminal Background Investigation/Fingerprinting Certification
00 45 90	Roofing Contract Financial Interest Certification
00 51 00	Notice of Award
00 52 13	Agreement
00 54 60	Hazardous Materials Procedures and Requirements
00 54 70	Storm Water Pollution Prevention Plan
00 55 00	Notice to Proceed
00 61 14	Performance Bond
00 61 15	Payment Bond (Contractor's Labor and Material Bond)
00 65 25	Final Settlement Agreement and Release of Claims
00 65 36	Warranty and Guarantee Form
00 70 00	General Conditions
00 71 00	Special Conditions
00 91 13	Addenda - <b>All addenda issued by SCCOE become part of the Contract.</b>

**DIVISION 1 - GENERAL REQUIREMENTS**

01 11 00	Summary of Work
01 12 10	Contract Forms and Submittals
01 20 00	Price and Payment Procedures

01 21 00	Allowances
01 23 00	Alternates and Unit Pricing
01 25 10	Product Options and Substitutions
01 26 00	Contract Modification Procedures
01 26 10	Requests for Information - Procedures
01 31 00	Coordination and Project Meetings
01 32 16	Construction Schedule - Network Analysis
01 33 00	Submittals
01 41 00	Regulatory Requirements
01 42 13	Abbreviations and Acronyms
01 42 16	General Definitions and References
01 45 29	Testing Laboratory Services
01 50 00	Temporary Facilities and Controls
01 52 10	Site Standards
01 56 39	Temporary Tree and Plant Protection
01 57 10	Storm Water Pollution Prevention Plan – Construction
01 60 00	Materials and Equipment
01 66 10	Delivery, Storage and Handling
01 70 10	Contract Closeout and Final Cleaning
01 71 10	Field Engineering
01 73 10	Cutting and Patching
01 74 10	Demolition Waste Management
01 78 23	Operation and Maintenance Data
01 78 36	Warranties
01 78 39	Record Documents
01 91 00	Commissioning

## **DIVISION 2 – EXISTING CONDITIONS**

02 41 19      Selective Demolition

## **DIVISION 3 - CONCRETE**

Not used

## **DIVISION 5 - METALS**

Not used

## **DIVISION 6 – WOOD, PLASTICS, AND COMPOSITES**

Not used

## **DIVISION 7 – THERMAL AND MOISTURE PROTECTION**

07 92 00      Joint Sealants

## **DIVISION 8 - OPENINGS**

Not used

**DIVISION 9 - FINISHES**

09 91 00      Painting

**DIVISION 10 - SPECIALTIES**

Not used

**DIVISION 26 – ELECTRICAL**

26 05 00    General Electrical Requirements  
26 05 19    Line Voltage Wire and Cable  
26 05 26    Grounding  
26 05 33    Outlet, Junction and Pull Boxes  
26 05 42    Conduits, Raceways and Fittings  
26 05 43    Underground Ducts  
26 05 44    In Grade Pull Boxes  
26 28 16    Circuit Breakers

**DIVISION 31 – EARTHWORK**

31 00 00      Earthwork  
31 10 00      Site Clearing  
31 23 16.13    Trenching  
31 23 23.13    Backfill

**DIVISION 32 – EXTERIOR IMPROVEMENTS**

32 12 16      Asphalt Paving  
32 13 13      Portland Cement Concrete Paving  
32 17 23      Pavement Markings

**End of Document**

**BID#06-24-25**

**SANTA CLARA COUNTY OFFICE OF EDUCATION**

**Lakeside Emergency Generator**

**DOCUMENT 00 01 10**

**TABLE OF CONTENTS - CONTRACT DOCUMENTS**

**PROCUREMENT AND CONTRACTING REQUIREMENTS**

<u>Division 0</u>	<u>Section</u>	<u>Title</u>
	00 01 01	Title Page
	00 01 10	Table of Contents (This Document)
	00 01 15	List of Drawings, Tables and Schedules
	00 11 16	Invitation to Bid
	00 21 13	Instructions to Bidders
	00 31 19	Existing Conditions
	00 41 13	Bid Form
	00 43 13	Bid Bond (Security)
	00 43 36	Designated Subcontractors List
	00 45 01	Site-Visit Certification
	00 45 19	Noncollusion Affidavit
	00 45 22	Iran Contracting Act Certification
	00 45 26	Worker's Compensation Certification
	00 45 50	Prevailing Wage and Related Labor Requirements Certification
	00 45 55	Disabled Veteran's Business Enterprise Participation Certification
	00 45 60	Drug-Free Workplace Certification
	00 45 65	Tobacco-Free Environment Certification
	00 45 70	Hazardous Materials Certification
	00 45 75	Lead-Based Paint Certification
	00 45 80	Imported Materials Certification
	00 45 85	Criminal Background Investigation/Fingerprinting Certification
	00 45 90	Roofing Contract Financial Interest Certification
	00 51 00	Notice of Award
	00 52 13	Agreement
	00 54 60	Hazardous Materials Procedures and Requirements
	00 54 70	Storm Water Pollution Prevention Plan
	00 55 00	Notice to Proceed
	00 61 14	Performance Bond
	00 61 15	Payment Bond (Contractor's Labor and Material Bond)
	00 65 25	Final Settlement Agreement and Release of Claims
	00 65 36	Warranty and Guarantee Form
	00 70 00	General Conditions
	00 71 00	Special Conditions
	00 91 13	Addenda - <b>All addenda issued by SCCOE become part of the Contract.</b>

## **SPECIFICATIONS – GENERAL REQUIREMENTS**

<u>Division 1</u>	<u>Section</u>	<u>Title</u>
	01 11 00	Summary of Work
	01 12 10	Contract Forms and Submittals
	01 20 00	Price and Payment Procedures
	01 21 00	Allowances
	01 23 00	Alternates and Unit Pricing
	01 25 10	Product Options and Substitutions
	01 26 00	Contract Modification Procedures
	01 26 10	Requests for Information - Procedures
	01 31 00	Coordination and Project Meetings
	01 32 16	Construction Schedule - Network Analysis
	01 33 00	Submittals
	01 41 00	Regulatory Requirements
	01 42 13	Abbreviations and Acronyms
	01 42 16	General Definitions and References
	01 45 29	Testing Laboratory Services
	01 50 00	Temporary Facilities and Controls
	01 52 10	Site Standards
	01 56 39	Temporary Tree and Plant Protection
	01 57 10	Storm Water Pollution Prevention Plan – Construction
	01 60 00	Materials and Equipment
	01 66 10	Delivery, Storage and Handling
	01 70 10	Contract Closeout and Final Cleaning
	01 71 10	Field Engineering
	01 73 10	Cutting and Patching
	01 74 10	Demolition Waste Management
	01 78 23	Operation and Maintenance Data
	01 78 36	Warranties
	01 78 39	Record Documents
	01 91 00	Commissioning

## **TECHNICAL SPECIFICATIONS**

### **DIVISION 1 - GENERAL REQUIREMENTS**

01 33 00 Submittal Procedures

### **DIVISION 2 – EXISTING CONDITIONS**

02 41 19 Selective Demolition

### **DIVISION 3 - CONCRETE**

Not used

### **DIVISION 5 - METALS**

Not used

### **DIVISION 6 – WOOD, PLASTICS, AND COMPOSITES**

Not used

### **DIVISION 7 – THERMAL AND MOISTURE PROTECTION**

07 92 00 Joint Sealants

### **DIVISION 8 - OPENINGS**

Not used

### **DIVISION 9 - FINISHES**

09 91 00 Painting



DIVISION 10 - SPECIALTIES

Not used

DIVISION 26 – ELECTRICAL

26 05 00 General Electrical Requirements

26 05 19 Line Voltage Wire and Cable

26 05 26 Grounding

26 05 33 Outlet, Junction and Pull Boxes

26 05 42 Conduits, Raceways and Fittings

26 05 43 Underground Ducts

26 05 44 In Grade Pull Boxes

26 28 16 Circuit Breakers

DIVISION 31 – EARTHWORK

31 00 00 Earthwork

31 10 00 Site Clearing

31 23 16.13 Trenching

31 23 23.13 Backfill

DIVISION 32 – EXTERIOR IMPROVEMENTS

32 12 16 Asphalt Paving

32 13 13 Portland Cement Concrete Paving

32 17 23 Pavement Markings

END OF DOCUMENT

**DOCUMENT 00 01 15**

**LIST OF DRAWINGS, TABLES AND SCHEDULES**

**DRAWINGS**

TITLE & CODES

A-0.1 TITLE SHEET

A-0.2 CODE SITE PLAN

ARCHITECTURAL

A-1.1 SITE PLAN

A-12.1 SITE DETAILS

ELECTRICAL

E001 SYMBOLS, ABBREVIATIONS, GENERAL CONSTRUCTION NOTES, LIGHT FIXTURE SCHEDULE, CODES & SHEET INDEX

E101 ELECTRICAL SINGLE LINE DIAGRAM & DETAILS

E201 OVERALL SITE PLAN

E202 PARTIAL SITE PLAN

END OF DOCUMENT

**DOCUMENT 00 11 16**

**INVITATION TO BID**

1. Notice is hereby given that the Santa Clara County Office of Education will receive sealed bids for the following project, **Bid No. 06-24-25:**

**PROJECT NAME: Lakeside Emergency Generator**

2. Sealed Bids will be received until **TBD** at the SCCOE Office, located at 1290 Ridder Park Drive, San Jose, California, at or after which time the bids will be opened and publicly read aloud. Any claim by a bidder of error in its bid must be made in compliance with section 5100 et seq. of the Public Contract Code. Any bid that is submitted after this time shall be non-responsive and returned to the bidder.
3. The Project consists of:

**Project includes the installation of electrical equipment, conduit and wiring to be able to connect to a owner furnished portable generator.**

Phase 1 - have PGE turn off and on the power this summer and complete the solar panel work and the installation of the pull can on the switchgear, the trenching and conduit installation, the inground pull can, the concrete pad and the parking lot striping and ordering of the feeders (wiring) and any other work the contractor can complete. But not install the MTS or the feeders.

Phase 2 – when the MTS arrives, the contractor will install this unit and then have PGE turn off and on the power again so the contractor can install the feeders and energize the system.

4. All bids shall be on the form provided by the SCCOE. Each bid must conform and be responsive to all pertinent Contract Documents, including, but not limited to, the Instructions to Bidders.
5. To bid on this Project, the Bidder is required to possess one or more of the following State of California Contractor Licenses:

**Contractor Licenses B -**

The Bidder's license(s) must be active and in good standing at the time of the bid opening and must remain so throughout the term of the Contract.

6. As security for its Bid, each bidder shall provide with its Bid form
  - a bid bond issued by an admitted surety insurer on the form provided by the SCCOE,
  - cash, or
  - a cashier's check or a certified check, drawn to the order of the Santa Clara County Office of Education in the amount of ten percent (10%) of the total bid price. This bid security shall be a guarantee that the Bidder shall, within seven (7) calendar days after the date of the Notice of Award, enter into a contract with the SCCOE for the performance of the services as stipulated in the bid.
7. The successful Bidder shall be required to furnish a 100 % Performance Bond and a 100% Payment Bond if it is awarded the contract for the Project.

8. The successful Bidder may substitute securities for any monies withheld by the SCCOE to ensure performance under the Contract, in accordance with the provisions of section 22300 of the Public Contract Code.
9. The successful Bidder and its subcontractors shall pay all workers on the Project not less than the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work as determined by the Director of the Department of Industrial Relations, State of California, for the type of work performed and the locality in which the work is to be performed within the boundaries of the SCCOE, pursuant to sections 1770 et seq. of the California Labor Code. Prevailing wage rates are available from the SCCOE or on the Internet at: <<http://www.dir.ca.gov>>. Bidders and Bidders' subcontractors shall comply with the registration and qualification requirements pursuant to sections 1725.5 and 1771.1 of the California Labor Code.
10. Code of Federal Regulations (CFR) Title 29 -Labor: 29 CFR A/48 FR 19540 – Davis Bacon Act: For the Federal Programs at SCCOE, the successful Bidder and its subcontractors shall pay all workers on the Project not less than the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work as determined by the U.S. Department of Labor for construction projects in excess of \$2,000. Construction includes alteration and/or repair, including painting and decorating, of public buildings or public works. The successful Bidder and its subcontractors shall submit Certified Payroll to SCCOE for any projects in excess of \$2,000.
11. A potential contractor that has submitted a formal or informal bid to provide goods and/or services to the SCCOE may be disqualified if the potential contractor has been found, by a court or by final administrative action of an investigatory government agency, to have violated applicable wage and hour laws in the five years prior to the submission of a bid to provide goods and/or services. A current contractor found by a court or by final administrative action of an investigatory government agency to have violated applicable wage and hour laws, in the five years prior to or during the term of the contract with the SCCOE, may be in material breach of its contract with the SCCOE if the violation is not fully disclosed and/or satisfied per SCCOE guidelines and contract requirements. Such breach may serve as a basis for contract termination and/or any other remedies available under law, including a stipulated remediation plan.
12. A **mandatory pre-bid conference** and site visit will be held on **TBD** at 19621 Black Road, Los Gatos, CA 95033. All participants are required to sign in and the Site Visit is expected to take approximately 1.5 hours. Failure to attend or tardiness will render bid ineligible.
13. Contract Documents are available on **TBD**, for review at the SCCOE at url: <https://www.sccoe.org/depts/bizserv/purchasing/Pages/Bids-Posting-System.aspx>
14. The SCCOE's reserves the right to reject any and all bids and/or waive any irregularity in any bid received. If the SCCOE awards the Contract, the security of unsuccessful bidder(s) shall be returned within sixty (60) days from the time the award is made. Unless otherwise required by law, no bidder may withdraw its bid for ninety (90) days after the date of the bid opening.
15. The SCCOE shall award the Contract, if it awards it at all, to the lowest responsive responsible bidder based on:

The base bid amount.

END OF DOCUMENT

**DOCUMENT 00 21 13**

**INSTRUCTIONS TO BIDDERS**

Bidders shall follow the instructions in this document, and shall submit all documents, forms, and information required for consideration of a Bid.

SCCOE will evaluate information submitted by the apparent low Bidder and, if incomplete or unsatisfactory to SCCOE, Bidder's bid may be rejected at the sole discretion of SCCOE.

1. **Project.** Bids are requested for a general construction contract, or work described in general, for the following project, Bid No. 06-24-25:

**PROJECT NAME: Lakeside Emergency Generator**

2. **Sealed Bids.** SCCOE will receive sealed Bids from Bidders as indicated in the Notice to Bidders and each Bidder shall ensure that its Bid:
  - a. Is sealed and marked with name and address of the Bidder, the Project name and number, the bid number and bid package (if applicable), and the date for opening bids;
  - b. Contains all documents as required herein; and
  - c. Is submitted by date and time shown in the Notice to Bidders.
3. **Bid Opening.** Bids will be opened at or after the time indicated for receipt of bids.
4. **Bid Form.** Bidders must submit Bids on the Bid Form and all other required SCCOE forms. Bids not submitted on the SCCOE's required forms shall be deemed non-responsive and shall not be considered. Additional sheets required to fully respond to requested information are permissible. Bidders shall not modify the Bid Form or qualify their Bids. Bidders shall not submit scanned, re-typed, word-processed, or otherwise recreated versions of the Bid Form or other SCCOE-provided documents.
5. **Complete Bids.** Bidders must supply all information required by each Bid Document. Bids must be full and complete. SCCOE reserves the right in its sole discretion to reject any Bid as non-responsive as a result of any error or omission in the Bid. Bidders must complete and submit all of the following documents with the Bid Form:
  - Bid Bond or other security
  - Designated Subcontractors List
  - Site-Visit Certification, if a site visit was required
  - Noncollusion Affidavit
  - Iran Contracting Act Certification
  - a. **Bid Bond or Other Security.** Bidders must submit their Bid Form with cash, a cashier's check or a certified check payable to SCCOE, or a bid bond by an admitted surety insurer of not less than ten percent (10%) of their base Bid amount, including all additive alternates. Required form of corporate surety, Bid Bond, is provided by SCCOE and must be used and fully completed by Bidders choosing to provide a Bid Bond as security. The Surety on Bidders' Bid Bond must be an insurer admitted in the State of California and authorized to issue surety bonds in the State of California. Bids submitted without necessary bid security will be deemed non-responsive and will not be considered.

- b. **Designated Subcontractors List.** Bidders must submit with the Bid the Designated Subcontractors List for those subcontractors who will perform any portion of Work, including labor, rendering of service, or specially fabricating and installing a portion of the Work or improvement according to detailed drawings contained in the plans and specifications, in excess of one half of one percent (0.5%) of total Bid. Failure to submit this list when required by law shall result in Bid being deemed non-responsive and the Bid will not be considered.
  - c. **Site Visit Certification.** If a mandatory pre-bid conference and site visit ("Site Visit") is requested as referenced in the Notice to Bidders, then Bidders must submit the Site-Visit Certification with their Bid. SCCOE will transmit to all prospective Bidders of record such Addenda as SCCOE in its discretion considers necessary in response to questions presented at the Site Visit. Oral statements shall not be relied upon and will not be binding or legally effective. Addenda issued by the SCCOE as a result of the Site Visit, if any, shall constitute the sole and exclusive record and statement of the results of the Site Visit.
  - d. **Noncollusion Affidavit.** Bidders shall submit the Noncollusion Affidavit with their Bids. Bids submitted without the Noncollusion Affidavit shall be deemed non-responsive and will not be considered.
  - e. **Iran Contracting Act Certification.** Bidders shall submit the Iran Contracting Act Certification with their Bids. Bids submitted without the Iran Contracting Act Certification shall be deemed non-responsive and will not be considered.
6. **Erasures.** Bids shall be clearly written without erasure or deletions. SCCOE reserves the right to reject any Bid containing erasures or deletions.
7. **Words / Numerals.** Discrepancies between written words and figures, or words and numerals, will be resolved in favor of written words.
8. **Prevailing Wages.** Pursuant to sections 1770 et seq. of the California Labor Code, Bidder and all Subcontractors under the Bidder shall pay all workers on all work performed pursuant to the Contract not less than the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work as determined by the Director of the State of California Department of Industrial Relations (DIR) for the type of work performed and the locality in which the work is to be performed within the boundaries of the SCCOE. Copies of the general prevailing rates of per diem wages for each craft, classification, or type of worker needed to execute the Contract, as determined by the DIR are available from on the internet (<http://www.dir.ca.gov>).
9. **Code of Federal Regulations (CFR) Title 29 -Labor: 29 CFR A/48 FR 19540 – Davis Bacon Act:** For the Federal Programs at SCCOE, the successful Bidder and its subcontractors shall pay all workers on the Project not less than the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work as determined by the U.S. Department of Labor for construction projects in excess of \$2,000. Construction includes alteration and/or repair, including painting and decorating, of public buildings or public works. The successful Bidder and its subcontractors shall submit Certified Payroll to SCCOE for any projects in excess of \$2,000.
10. **Wage Theft Prevention.** A potential contractor that has submitted a formal or informal bid to provide goods and/or services to the SCCOE may be disqualified if the potential contractor has been found, by a court or by final administrative action of an investigatory government agency, to have violated applicable wage and hour laws in the five years prior to the submission of a bid to provide goods and/or services. A current contractor found by a court or by final administrative action of an investigatory government agency to have violated

applicable wage and hour laws, in the five years prior to or during the term of the contract with the SCCOE, may be in material breach of its contract with the SCCOE if the violation is not fully disclosed and/or satisfied per SCCOE guidelines and contract requirements. Such breach may serve as a basis for contract termination and/or any other remedies available under law, including a stipulated remediation plan.

11. **Contractor Registration.** Bidder shall ensure that it and its Subcontractors comply with the registration and compliance monitoring provisions of Labor Code section 1771.4, including furnishing its CPRs to the Labor Commissioner, and are registered pursuant to Labor Code section 1725.5. Bidder and its subcontractors shall comply with Labor Code section 1725.5 to be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code or engage in the performance of the Contract.
12. **DVBE.** Section 17076.11 of the Education Code requires SCCOE's using funds allocated pursuant to the State of California School Facility Program for the construction and/or modernization of school building(s) to have a participation goal for disabled veteran business enterprises ("DVBE") of at least three percent (3%) per year of the overall dollar amount expended on projects that receive state funding. For any project that is at least partially state-funded, the low Bidder must submit certification of compliance with the procedures for implementation of DVBE contracting goals with its signed Agreement. DVBE Certification Participation Forms are attached. Bidders should not submit these forms with their Bids.
13. **Bidder Diligence.** Submission of Bid signifies careful examination of the Contract Documents and a complete understanding of the nature, extent, and location of Work to be performed. Bidders must complete the tasks listed below as a condition to bidding, and submission of Bid shall constitute the Bidder's express representation to SCCOE that Bidder has fully completed the following:
  - a. Bidder has visited the Project Site, if required, and has examined thoroughly and understood the nature and extent of the Contract Documents, Work, Site, locality, actual conditions, as-built conditions, and all local conditions and federal, state and local laws, and regulations that in any manner may affect cost, progress, performance, or furnishing of Work or that relate to any aspect of the means, methods, techniques, sequences, or procedures of construction to be employed by Bidder and safety precautions and programs incident thereto;
  - b. Bidder has conducted or obtained and has understood all examinations, investigations, explorations, tests, reports, and studies that pertain to the subsurface conditions, as-built conditions, underground facilities, and all other physical conditions at or contiguous to the Site or otherwise that may affect the cost, progress, performance, or furnishing of Work, as Bidder considers necessary for the performance or furnishing of Work at the Contract Price, within the Contract Time, and in accordance with the other terms and conditions of Contract Documents, including specifically the provisions of the General Conditions; and no additional examinations, investigations, explorations, tests, reports, studies, or similar information or data are or will be required by Bidder for such purposes;
  - c. Bidder has correlated its knowledge and the results of all such observations, examinations, investigations, explorations, tests, reports, and studies with the terms and conditions of the Contract Documents;
  - d. Bidder has given the SCCOE prompt written notice of all conflicts, errors, ambiguities, or discrepancies that it has discovered in or among the Contract Documents and the actual conditions, and the written resolution thereof by the SCCOE is acceptable to Bidder;
  - e. Bidder has made a complete disclosure in writing to the SCCOE of all facts bearing upon any possible interest, direct or indirect, that Bidder believes any representative of the SCCOE or other officer or employee of the SCCOE presently has or will have in this Contract or in the performance thereof or in any portion of the profits thereof;

- f. Bidder must, prior to bidding, perform the work, investigations, research, and analysis required by the Instructions to Bidders and that Bidder represented in its Bid Form and the Agreement that it performed prior to bidding. Bidder is charged with all information and knowledge that a reasonable bidder would ascertain from having performed this required work, investigation, research, and analysis. Bid prices must include entire cost of all work “incidental” to completion of the Work.
- g. Conditions Shown on the Contract Documents: Information as to underground conditions, as-built conditions, or other conditions or obstructions, indicated in the Contract Documents, e.g., on Drawings or in Specifications, has been obtained with reasonable care, and has been recorded in good faith. However, SCCOE only warrants, and Bidder may only rely, on the accuracy of limited types of information.
  - (1) As to above-ground conditions or as-built conditions shown or indicated in the Contract Documents, there is no warranty, express or implied, or any representation express or implied, that such information is correctly shown or indicated. This information is verifiable by independent investigation and Bidder is required to make such verification as a condition to bidding. In submitting its Bid, Bidder shall rely on the results of its own independent investigation. In submitting its Bid, Bidder shall not rely on SCCOE-supplied information regarding above-ground conditions or as-built conditions.
  - (2) As to any subsurface condition shown or indicated in the Contract Documents, Bidder may rely only upon the general accuracy of actual reported depths, actual reported character of materials, actual reported soil types, actual reported water conditions, or actual obstructions shown or indicated. SCCOE is not responsible for the completeness of such information for bidding or construction; nor is SCCOE responsible in any way for any conclusions or opinions of Bidder drawn from such information; nor is SCCOE responsible for subsurface conditions that are not specifically shown (for example, SCCOE is not responsible for soil conditions in areas contiguous to areas where a subsurface condition is shown).
- h. Conditions Shown in Reports and Drawings Supplied for Informational Purposes: Reference is made to the document entitled Geotechnical Data, and the document entitled Existing Conditions, for identification of:
  - (1) Subsurface Conditions: Those reports of explorations and tests of subsurface conditions at or contiguous to the Project Site that have been utilized by Architect in preparing the Contract Documents; and
  - (2) Physical Conditions: Those drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Project Site that has been utilized by Architect in preparing the Contract Documents.
  - (3) These reports and drawings are **not** Contract Documents and, except for any “technical” data regarding subsurface conditions specifically identified in Geotechnical Data and Existing Conditions, and underground facilities data, Bidder may not in any manner rely on the information in these reports and drawings. Subject to the foregoing, Bidder must make its own independent investigation of all conditions affecting the Work and must not rely on information provided by SCCOE.
- 14. **As-Builts.** Bidders may examine any available “as-built” drawings of previous work by giving SCCOE reasonable advance notice. SCCOE will not be responsible for accuracy of “as-built” drawings. The document entitled Existing Conditions applies to all supplied “as-built” drawings.
- 15. **Questions.** All questions about the meaning or intent of the Contract Documents are to be directed in writing to the SCCOE. Interpretations or clarifications considered necessary by the SCCOE in response to such



questions will be issued in writing by Addenda faxed, mailed, or delivered to all parties recorded by the SCCOE as having received the Contract Documents. Questions received less than **SEVEN (7)** calendar days prior to the date for opening Bids may not be answered. Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

16. **Addenda.** Addenda may also be issued to modify parts of the Contract Documents as deemed advisable by the SCCOE. Bidder must acknowledge each Addendum in its Bid Form by number or its Bid may be considered non-responsive. Each Addenda shall be part of the Contract Documents. A complete listing of Addenda may be obtained from the SCCOE.
17. **Substitution for Specified Items.** Bids shall be based on products and systems specified in Contract Documents or listed by name in Addenda. All requests must comply with the requirements specified in the Special Conditions, the Specifications and the following:
  - a. **Request for Substitution Prior to Bid.**
    - (1) SCCOE must receive any request for substitution a minimum of **SEVEN (7)** calendar days prior to the date of bid opening.
    - (2) The SCCOE's denial of a substitution request prior to the date of bid opening shall be conclusive, requiring Bidders to list only approved items. The SCCOE is not responsible and/or liable in any way for a Bidder's damages and/or claims related, in any way, to that Bidder's basing its bid on any requested substitution that the SCCOE has not approved. Bidder's Bid shall be deemed non-responsive if it identifies a product or manufacturer of a non-approved substitution.
    - (3) Approved substitutions shall be listed in Addenda.
    - (4) SCCOE reserves the right not to act upon submittals of substitutions until after the date of bid opening.
  - b. **Request for Substitution after Bid Award.** Substitutions may be requested after Contract has been awarded only if indicated in and in accordance with requirements specified in the Special Conditions.
  - c. **Information with Request.** Requests for substitutions shall contain sufficient information to assess acceptability of the product or system and impact to Project, including, without limitation, the requirements specified in the Special Conditions and the Specifications. Insufficient information shall be grounds for rejection of substitution.
18. **Alternates.** The Contract may include alternates. Alternates are defined as alternate products, materials, equipment, systems, methods, or major elements of the construction, that may, at the SCCOE's option and under terms established in the Contract and pursuant to section 20103.8 of the Public Contract Code, be selected for the Work. The SCCOE shall award the Contract, if it awards it at all, to the lowest responsive responsible bidder based on the criteria as indicated in the Notice to Bidders.
19. **Notice of Award.** The Bidder awarded the Contract shall execute and submit the following documents by 5:00 p.m. of the **SEVENTH (7<sup>TH</sup>)** calendar day following the date of the Notice of Award. Failure to properly and timely submit these documents entitles SCCOE to, among other remedies, make a claim against Bidder's Bid Bond or deposit Bidder's cash, cashier's check, or certified check. The proceeds thereof may be retained by SCCOE as liquidated damages, in SCCOE's sole discretion.
  - a. **Agreement:** To be executed by successful Bidder. Submit four (4) copies, each bearing an original signature.

- b. Performance Bond (100%): On the form provided in the Contract Documents and fully executed as indicated on the form.
  - c. Payment Bond (100%) (Contractor's Labor and Material Bond): On the form provided in the Contract Documents and fully executed as indicated on the form.
  - d. Insurance Certificates and Endorsements as required.
  - e. Workers' Compensation Certification.
  - f. Prevailing Wage and Related Labor Requirements Certification.
  - g. Disabled Veterans' Business Enterprise Participation Certification.
  - h. Drug-Free Workplace Certification.
  - i. Smoke-Free Environment Certification.
  - j. Hazardous Materials Certification.
  - k. Lead-Based Paint Certification.
  - l. Imported Materials Certification.
  - m. Criminal Background Investigation/Fingerprinting Certification.
  - n. Roofing Contract Financial Interest Certification
20. **Notice to Proceed.** SCCOE may issue a Notice to Proceed within **THREE (3)** months from the date of the Notice of Award. Upon receipt of the Notice to Proceed, Contractor shall complete the Work within the period of time indicated in the Contract Documents. It is further expressly understood by Contractor that Contractor shall not be entitled to any claim of additional compensation or additional time when the Notice to Proceed is issued within the 3-month period.
- a. The SCCOE may postpone issuing the Notice to Proceed beyond the 3-month period, upon reasonable notice to Contractor.
  - b. It is further expressly understood by Contractor that Contractor shall not be entitled to any claim of additional compensation as a result of the postponement of the issuance of the Notice to Proceed beyond the 3-month period. If the Contractor believes that a postponement of issuance of the Notice to Proceed will cause a hardship to Contractor, the Contractor may terminate the Contract. Contractor's termination due to a postponement beyond the 3-month period shall be by written notice to SCCOE within **SEVEN (7)** calendar days after receipt by Contractor of SCCOE's notice of postponement.
  - c. It is further understood by Contractor that in the event Contractor terminates the Contract as a result of postponement by the SCCOE, SCCOE shall only be obligated to pay Contractor for the Work that Contractor had performed at the time of notification of postponement and which the SCCOE had in writing authorized Contractor to perform prior to issuing a Notice to Proceed.
  - d. Should Contractor terminate the Contract as a result of a notice of postponement, SCCOE shall have the authority to award the Contract to the next lowest responsive responsible bidder.

21. **Bid Protests.** Any bid protest by any Bidder regarding any other bid on this Project must be submitted in writing to the SCCOE, before 5:00 p.m. of the **THIRD (3<sup>rd</sup>)** business day following the date of bid opening.
- a. The protest must contain a complete statement of any and all bases for the protest.
  - b. The protest must refer to the specific portions of all documents that form the bases for the protest.
  - c. The protest must include the name, address and telephone number of the person representing the protesting party.
  - d. The party filing the protest must concurrently transmit a copy of the protest and any attached documentation to all other parties with a direct financial interest that may be adversely affected by the outcome of the protest. Such parties shall include all other bidders or proposers who appear to have a reasonable prospect of receiving an award depending upon the outcome of the protest.
  - e. The procedure and time limits set forth in this paragraph are mandatory and are each bidder's sole and exclusive remedy in the event of bid protest. Failure to comply with these procedures shall constitute a waiver of any right to further pursue the bid protest, including filing a Government Code Claim or legal proceedings.
22. **Rejection of Bids.** SCCOE reserves the right to reject any or all bids, including without limitation the right to reject any or all nonconforming, non-responsive, unbalanced, or conditional bids, to re-bid, and to reject the bid of any bidder if SCCOE believes that it would not be in the best interest of the SCCOE to make an award to that bidder, whether because the bid is not responsive or the bidder is unqualified or of doubtful financial ability or fails to meet any other pertinent standard or criteria established by SCCOE. SCCOE also reserves the right to waive inconsequential deviations not involving price, time, or changes in the Work. For purposes of this paragraph, an "unbalanced bid" is one having nominal prices for work item(s) that represent substantive work and/or overly-enhanced prices for nominal work item(s).
23. **Bidder Responsibility.** Prior to the award of Contract, SCCOE reserves the right to consider the responsibility of the Bidder. SCCOE may conduct investigations as SCCOE deems necessary to assist in the evaluation of any bid and to establish the responsibility, including, without limitation, qualifications and financial ability of Bidders, proposed subcontractors, suppliers, and other persons and organizations to perform and furnish the Work in accordance with the Contract Documents to SCCOE's satisfaction within the prescribed time.

END OF DOCUMENT

**DOCUMENT 00 31 19**

**EXISTING CONDITIONS**

**1. Summary**

This document describes existing conditions at or near the Project, and use of information available regarding existing conditions. This document is part of the Contract Documents. See General Conditions for definition(s) of terms used herein.

**2. Reports and Information on Existing Conditions**

- a. Documents providing a general description of the Site and conditions of the Work may have been collected by SCCOE, its consultants, contractors, and tenants. These documents may include previous contracts, contract specifications, tenant improvement contracts, as-built drawings, utility drawings, and information regarding underground facilities.
- b. Information regarding existing conditions may be inspected at the SCCOE offices or the Construction Manager's offices, if any, and copies may be obtained at cost of reproduction and handling upon Bidder's agreement to pay for such copies. These reports, documents, and other information are **not** part of the Contract Documents.
- c. Information regarding existing conditions may also be included in the Project Manual, but shall **not** be considered part of the Contract Documents.
- d. The reports and other data or information regarding existing conditions and underground facilities at or contiguous to the Project are the following:
  - (1) As-built plans.
  - (2) Survey of Site.
  - (3) Other site archives.

**3. Use of Information**

- a. Information regarding existing conditions was obtained only for use of SCCOE and its consultants, contractors, and tenants for planning and design and is part of the Contract Documents.
- b. SCCOE does not warrant, and makes no representation regarding, the accuracy or thoroughness of any information regarding existing conditions. Bidder represents and agrees that in submitting a bid it is not relying on any information regarding existing conditions supplied by SCCOE.
- c. Under no circumstances shall SCCOE be deemed to warrant or represent existing above-ground conditions, as-built conditions, or other actual conditions, verifiable by independent investigation. These conditions are verifiable by Contractor by the performance of its own independent investigation, that Contractor must perform as a condition to bidding, and Contractor should not and shall not rely on this information or any other information supplied by SCCOE regarding existing conditions.
- d. Any information shown or indicated in the reports and other data supplied herein with respect to existing underground facilities at or contiguous to the Project may be based upon information and data furnished to SCCOE by the SCCOE's employees and/or consultants or builders of such underground facilities or

others. SCCOE does not assume responsibility for the completeness of this information, and Bidder is solely responsible for any interpretation or conclusion drawn from this information.

- e. SCCOE shall be responsible only for the general accuracy of information regarding underground facilities, and only for those underground facilities that are owned by SCCOE, and only where Bidder has conducted the independent investigation required of it pursuant to the Instructions to Bidders, and discrepancies are not apparent.

#### **4. Investigations/Site Examinations**

- a. Before submitting a Bid, each Bidder is responsible for conducting or obtaining any additional or supplementary examinations, investigations, explorations, tests, studies, and data concerning conditions (surface, subsurface, and underground facilities) at or contiguous to the Site or otherwise, that may affect cost, progress, performance, or furnishing of Work or that relate to any aspect of the means, methods, techniques, sequences, or procedures of construction to be employed by Bidder and safety precautions and programs incident thereto or that Bidder deems necessary to determine its Bid for performing and furnishing the Work in accordance with the time, price, and other terms and conditions of Contract Documents.
- b. On request, SCCOE will provide each Bidder access to the Site to conduct such examinations, investigations, explorations, tests, and studies, as each Bidder deems necessary for submission of a Bid. Bidders must fill all holes and clean up and restore the Site to its former condition upon completion of its explorations, investigations, tests, and studies. Such investigations and Site examinations may be performed during any and all Site visits indicated in the Notice to Bidders and only under the provisions of the Contract Documents, including, but not limited to, proof of insurance and obligation to indemnify against claims arising from such work, and SCCOE's prior approval.

END OF DOCUMENT

## BID FORM

From: \_\_\_\_\_  
(Proper Name of Bidder)

\_\_\_\_\_ dollars      \$ \_\_\_\_\_

***TOTAL BASE BID***

1. **Additive/Deductive Alternates.** The Bidder's Base Bid shall **NOT** include any Additive/Deductive Alternates.
2. **Unit Price(s).** The Bidder's Base Bid includes the following unit price(s), which the Bidder must provide and the SCCOE may, at its discretion, utilize in valuing additive and/or deductive change orders:

**[None]**

3. **Allowance(s).** The Bidder's Base Bid shall **NOT** include any potential Allowance(s).
4. **Contract Review.** The undersigned has reviewed the Work outlined in the Contract Documents and fully understands the scope of Work required in this bid, understands the construction and project management function(s) is described in the Contract Documents, and that each Bidder who is awarded a contract shall be in fact a prime contractor, not a subcontractor, to the SCCOE, and agrees that its bid, if accepted by the SCCOE, will be the basis for the Bidder to enter into a contract with the SCCOE in accordance with the intent of the Contract Documents.
5. **Requests for Clarification.** The undersigned has notified the SCCOE in writing of any discrepancies or omissions or of any doubt, questions, or ambiguities about the meaning of any of the Contract Documents, and has contacted the Construction Manager before bid date to verify the issuance of any clarifying Addenda.
6. **Contract Time.** The undersigned agrees to commence work under this Contract on the date established in the Contract Documents and to complete all work within the time specified in the Contract Documents.
7. **Contractual Provisions.** The undersigned hereby acknowledges and agrees to be bound by following provisions and all provisions in the Contract Documents:
  - The liquidated damages clause of the General Conditions and Agreement.
  - The "Changes in the Work" provisions in the General Conditions that limit the permitted charges and mark-ups on change orders and on the amount of home office overhead that the successful bidder can receive from the SCCOE.
  - The "Disputes and Claims" provisions in the General Conditions that delineate the required process to submit and process disputes and claims.
8. **Bid Open for 90 Days.** It is understood that the SCCOE reserves the right to reject this bid and that the bid shall remain open to acceptance and is irrevocable for a period of ninety (90) days.
9. **Attachments.** The following documents are attached hereto:
  - The Bid Bond on the SCCOE's form or other security
  - The Designated Subcontractors List
  - The Site-Visit Certification, if a site visit was required.
  - The Noncollusion Affidavit
  - Iran Contracting Act Certification
10. **Addenda Acknowledgement.** Receipt and acceptance of the following addenda is hereby acknowledged:

No.____, Dated _____	No.____, Dated _____

No.____, Dated _____	No.____, Dated _____
No.____, Dated _____	No.____, Dated _____
No.____, Dated _____	No.____, Dated _____
<input type="checkbox"/> Or check here if <b><u>no</u></b> addenda were issued.	

11. **Bidder's License.**

- Bidder acknowledges that the license required for performance of the Work is as stated in the Invitation to Bid.
- Bidder certifies that it is, at the time of bidding, and shall be throughout the period of the contract, licensed by the State of California to do the type of work required under the terms of the Contract Documents. Bidder further certifies that it is regularly engaged in the general class and type of work called for in the Contract Documents.

12. **Labor Harmony.** The undersigned hereby certifies that Bidder is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed on the Work.

13. **DIR Registration.** Bidder shall ensure that it and its Subcontractors comply with the registration and compliance monitoring provisions of Labor Code section 1771.4, including furnishing its CPRs to the Labor Commissioner, and are registered pursuant to Labor Code section 1725.5.

14. **SWPPP QSP.** Bidder specifically acknowledges and understands that if it is awarded the Contract, it shall perform the Work of the Project related to being the SCCOE's Qualified SWPPP (Storm Water Pollution Prevention Plan) Practitioner ("QSP") and that the Bidder is certified to be the SCCOE's QSP, as required by the current California State Water Board's Construction General Permit.

15. **General Acknowledgement.** The Bidder represents that it is competent, knowledgeable, and has special skills with respect to the nature, extent, and inherent conditions of the Work to be performed. Bidder further acknowledges that there are certain peculiar and inherent conditions existent in the construction of the Work that may create, during the Work, unusual or peculiar unsafe conditions hazardous to persons and property. Bidder expressly acknowledges that it is aware of such peculiar risks and that it has the skill and experience to foresee and to adopt protective measures to perform the Work adequately and safely with respect to such hazards.

16. **False Claims Act.** Bidder expressly acknowledges that it is aware that if a false claim is knowingly submitted (as the terms "claim" and "knowingly" are defined in the California False Claims Act, Cal. Gov. Code, §12650 et seq.), the SCCOE will be entitled to civil remedies set forth in the California False Claim Act. It may also be considered fraud and the Contractor may be subject to criminal prosecution.



Furthermore, Bidder hereby certifies to the SCCOE that all representations, certifications, and statements made by Bidder, as set forth in this bid form, are true and correct and are made under penalty of perjury.

Dated this \_\_\_\_\_ day of \_\_\_\_\_ 20 \_\_\_\_\_

Name of Bidder \_\_\_\_\_

Type of Organization \_\_\_\_\_

Signed by \_\_\_\_\_

Title of Signer \_\_\_\_\_

Address of Bidder \_\_\_\_\_

Taxpayer's Identification No. of Bidder \_\_\_\_\_

Telephone Number \_\_\_\_\_

Fax Number \_\_\_\_\_

E-mail \_\_\_\_\_ Web page \_\_\_\_\_

Bidder's DIR Registration No.: No.: \_\_\_\_\_

Contractor's License No(s): No.: \_\_\_\_\_ Class: \_\_\_\_\_ Expiration Date: \_\_\_\_\_

No.: \_\_\_\_\_ Class: \_\_\_\_\_ Expiration Date: \_\_\_\_\_

No.: \_\_\_\_\_ Class: \_\_\_\_\_ Expiration Date: \_\_\_\_\_

If Bidder is a corporation, provide the following:

Name of Corporation: \_\_\_\_\_

President: \_\_\_\_\_

Secretary: \_\_\_\_\_

Treasurer: \_\_\_\_\_

Manager: \_\_\_\_\_

END OF DOCUMENT

**DOCUMENT 00 43 13**

**BID BOND (SECURITY)**

**(Note: If Bidder is providing a bid bond as its bid security,  
Bidder must use this form, NOT a surety company form.)**

KNOW ALL PERSONS BY THESE PRESENTS:

That the undersigned, \_\_\_\_\_ as Principal ("Principal"),

and \_\_\_\_\_ as Surety ("Surety"),

a corporation organized and existing under and by virtue of the laws of the State of \_\_\_\_\_

and authorized to do business as a surety in the State of California, are held and firmly bound unto the

[SCCOE] School SCCOE ("SCCOE")

of \_\_\_\_\_ County, State of California as Obligee, in the sum of

\_\_\_\_\_ (\$ \_\_\_\_\_)

lawful money of the United States of America, for the payment of which sum well and truly to be made, we, and each of us, bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that whereas the principal has submitted a bid to the SCCOE for all Work specifically described in the accompanying bid;

NOW, THEREFORE, if the Principal is awarded the Contract and, within the time and manner required under the Contract Documents, after the prescribed forms are presented to Principal for signature, enters into a written contract, in the prescribed form in accordance with the bid, and files two bonds, one guaranteeing faithful performance and the other guaranteeing payment for labor and materials as required by law, and meets all other conditions to the contract between the Principal and the Obligee becoming effective, or if the Principal shall fully reimburse and save harmless the Obligee from any damage sustained by the Obligee through failure of the Principal to enter into the written contract and to file the required performance and labor and material bonds, and to meet all other conditions to the Contract between the Principal and the Obligee becoming effective, then this obligation shall be null and void; otherwise, it shall be and remain in full force and effect. The full payment of the sum stated above shall be due immediately if Principal fails to execute the Contract within seven (7) days of the date of the SCCOE's Notice of Award to Principal.

Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or the call for bids, or to the work to be performed thereunder, or the specifications accompanying the same, shall in any way affect its obligation under this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or the call for bids, or to the work, or to the specifications.

In the event suit is brought upon this bond by the Obligee and judgment is recovered, the Surety shall pay all costs incurred by the Obligee in such suit, including a reasonable attorneys' fee to be fixed by the Court.

If the SCCOE awards the bid, the security of unsuccessful bidder(s) shall be returned within sixty (60) days from the time the award is made. Unless otherwise required by law, no bidder may withdraw its bid for ninety (90) days after the date of the bid opening.

IN WITNESS WHEREOF, this instrument has been duly executed by the Principal and Surety above named, on the \_\_\_\_ day of \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
Principal

\_\_\_\_\_  
By

\_\_\_\_\_  
Surety

\_\_\_\_\_  
By

\_\_\_\_\_  
Name of California Agent of Surety

\_\_\_\_\_  
Address of California Agent of Surety

\_\_\_\_\_  
Telephone Number of California Agent of Surety

**Bidder must attach Power of Attorney and Certificate of Authority for Surety and a Notarial Acknowledgment for all Surety's signatures. The California Department of Insurance must authorize the Surety to be an admitted Surety Insurer.**

END OF DOCUMENT

**DOCUMENT 00 43 36**

**DESIGNATED SUBCONTRACTORS LIST**

TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID

PROJECT: Lakeside Emergency Generator (Project Name)

1. Bidder must list hereinafter the name and location of each subcontractor who will be employed, and the scope of Work that each will perform if the Contract is awarded to the Bidder. Bidder acknowledges and agrees that under Public Contract Code section 4100, et seq., it must clearly identify the name and location of each subcontractor who will perform work or labor or render service to the Bidder in or about the construction of the Work in an amount in excess of one-half of one percent (1/2 of 1%) of Bidder's total Bid.
2. As to any Work that Bidder fails to list, Bidder agrees to perform that portion itself or be subjected to penalty under applicable law.
3. If alternate bids are called for and Bidder intends to use Subcontractors different from or in addition to those Subcontractors listed for work under the base Bid, Bidder must list Subcontractors that will perform Work in an amount in excess of one half of one percent (1/2 of 1%) of Bidder's total Bid, including alternates.
4. In case more than one subcontractor is named for the same scope of Work, state the portion that each will perform.
5. Bidder need not list entities that are only vendors or suppliers of materials.
6. Bidder must provide the Contactor State License Board number ("CSLB No.") for all listed subcontractors.
7. Bidder must provide the Department of Industrial Relations registration number ("DIR No.") for all listed subcontractors.
8. **The SCCOE will permit each Bidder to submit each listed subcontractor's CSLB No. and the DIR No. no later than twenty-four (24) hours after bid opening.**
9. If further space is required for the list of proposed subcontractors, additional sheets showing the required information, as indicated below, shall be attached hereto and made a part of this document.

**Subcontractor Name:** \_\_\_\_\_ **Location:** \_\_\_\_\_

**Scope of Work:** \_\_\_\_\_

**If DVBE, Percent of Work:** \_\_\_\_\_ **%** **CSLB No.:** \_\_\_\_\_ **DIR No.:** \_\_\_\_\_

**Subcontractor Name:** \_\_\_\_\_ **Location:** \_\_\_\_\_

Scope of Work: \_\_\_\_\_

If DVBE, Percent of Work: \_\_\_\_\_ % CSLB No.: \_\_\_\_\_ DIR No.: \_\_\_\_\_

**Subcontractor Name:** \_\_\_\_\_ **Location:** \_\_\_\_\_

Scope of Work: \_\_\_\_\_

If DVBE, Percent of Work: \_\_\_\_\_ % CSLB No.: \_\_\_\_\_ DIR No.: \_\_\_\_\_

**Subcontractor Name:** \_\_\_\_\_ **Location:** \_\_\_\_\_

Scope of Work: \_\_\_\_\_

If DVBE, Percent of Work: \_\_\_\_\_ % CSLB No.: \_\_\_\_\_ DIR No.: \_\_\_\_\_

**Subcontractor Name:** \_\_\_\_\_ **Location:** \_\_\_\_\_

Scope of Work: \_\_\_\_\_

If DVBE, Percent of Work: \_\_\_\_\_ % CSLB No.: \_\_\_\_\_ DIR No.: \_\_\_\_\_

**Subcontractor Name:** \_\_\_\_\_ **Location:** \_\_\_\_\_

Scope of Work: \_\_\_\_\_

If DVBE, Percent of Work: \_\_\_\_\_ % CSLB No.: \_\_\_\_\_ DIR No.: \_\_\_\_\_

**Subcontractor Name:** \_\_\_\_\_ **Location:** \_\_\_\_\_

Scope of Work: \_\_\_\_\_

If DVBE, Percent of Work: \_\_\_\_\_ % CSLB No.: \_\_\_\_\_ DIR No.: \_\_\_\_\_

**Subcontractor Name:** \_\_\_\_\_ **Location:** \_\_\_\_\_

Scope of Work: \_\_\_\_\_

If DVBE, Percent of Work: \_\_\_\_\_ % CSLB No.: \_\_\_\_\_ DIR No.: \_\_\_\_\_

**Subcontractor Name:** \_\_\_\_\_ **Location:** \_\_\_\_\_

Scope of Work: \_\_\_\_\_

If DVBE, Percent of Work: \_\_\_\_\_ % CSLB No.: \_\_\_\_\_ DIR No.: \_\_\_\_\_

**Subcontractor Name:** \_\_\_\_\_ **Location:** \_\_\_\_\_

Scope of Work: \_\_\_\_\_

If DVBE, Percent of Work: \_\_\_\_\_ % CSLB No.: \_\_\_\_\_ DIR No.: \_\_\_\_\_

**Subcontractor Name:** \_\_\_\_\_ **Location:** \_\_\_\_\_

Scope of Work: \_\_\_\_\_

If DVBE, Percent of Work: \_\_\_\_\_ % CSLB No.: \_\_\_\_\_ DIR No.: \_\_\_\_\_

**Subcontractor Name:** \_\_\_\_\_ **Location:** \_\_\_\_\_

Scope of Work: \_\_\_\_\_

If DVBE, Percent of Work: \_\_\_\_\_ % CSLB No.: \_\_\_\_\_ DIR No.: \_\_\_\_\_

**Subcontractor Name:** \_\_\_\_\_ **Location:** \_\_\_\_\_

Scope of Work: \_\_\_\_\_

If DVBE, Percent of Work: \_\_\_\_\_ % CSLB No.: \_\_\_\_\_ DIR No.: \_\_\_\_\_

**Subcontractor Name:** \_\_\_\_\_ **Location:** \_\_\_\_\_

Scope of Work: \_\_\_\_\_

If DVBE, Percent of Work: \_\_\_\_\_ % CSLB No.: \_\_\_\_\_ DIR No.: \_\_\_\_\_

**Subcontractor Name:** \_\_\_\_\_ **Location:** \_\_\_\_\_

Scope of Work: \_\_\_\_\_

If DVBE, Percent of Work: \_\_\_\_\_ % CSLB No.: \_\_\_\_\_ DIR No.: \_\_\_\_\_

I certify and declare under penalty of perjury under the laws of the State of California that all the foregoing information is complete, true, and correct.

Date: \_\_\_\_\_

Proper Name of Bidder: \_\_\_\_\_

Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

END OF DOCUMENT

**DOCUMENT 00 45 01**

**SITE-VISIT CERTIFICATION**

PROJECT: Lakeside Emergency Generator (Project Name)

Check whichever option applies:

\_\_\_\_\_ I certify that I visited the Site of the proposed Work and became fully acquainted with the conditions relating to construction and labor. I fully understand the facilities, difficulties, and restrictions attending the execution of the Work under contract.

\_\_\_\_\_ I certify that \_\_\_\_\_ (Bidder's representative) visited the Site of the proposed Work and became fully acquainted with the conditions relating to construction and labor. The Bidder's representative fully understood the facilities, difficulties, and restrictions attending the execution of the Work under contract.

Bidder fully relieves and releases the [SCCOE] School SCCOE, its Architect, its Engineer, its Construction Manager, and all of their respective officers, agents, employees, and consultants from any liability for any monetary or other damage(s), related to conditions that could have been identified during my visit and/or the Bidder's representative's visit to the Site.

I certify under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Date: \_\_\_\_\_

Proper Name of Bidder: \_\_\_\_\_

Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

END OF DOCUMENT

**DOCUMENT 00 45 19**

**NONCOLLUSION AFFIDAVIT**  
**Public Contract Code § 7106**

TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID

The undersigned declares:

I am the \_\_\_\_\_ **[PRINT YOUR TITLE]**

of \_\_\_\_\_ **[PRINT FIRM NAME]**.

the party making the foregoing Contract.

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 the following date:

Date: \_\_\_\_\_

Proper Name of Bidder: \_\_\_\_\_

City, State: \_\_\_\_\_

Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

**(ATTACH NOTARIAL ACKNOWLEDGMENT FOR THE ABOVE SIGNATURE)**

END OF DOCUMENT



**DOCUMENT 00 45 22**

**IRAN CONTRACTING ACT CERTIFICATION (Public Contract Code § 2204)**

PROJECT/CONTRACT NO.: Lakeside Emergency Generator B06-24-25 between Santa Clara County Office of Education (the "SCCOE" or the "Owner") and \_\_\_\_\_  
(the "Contractor" or the "Bidder") (the "Contract" or the "Project").

Pursuant to Public Contract Code (PCC) section 2204, an Iran Contracting Act certification is required for solicitations of goods or services of one million dollars (\$1,000,000) or more.

Bidder shall complete **ONLY ONE** of the following two paragraphs.

- ☐ 1. Bidder's Total Base Bid is less than one million dollars (\$1,000,000).

**OR**

- ☐ 2. Bidder's Total Base Bid is one million dollars (\$1,000,000) or more, but Bidder is **not** on the current list of persons engaged in investment activities in Iran created by the California Department of General Services ("DGS") pursuant to Public Contract Code § 2203(b), and Bidder is not a financial institution extending twenty million dollars (\$20,000,000) or more in credit to another person, for 45 days or more, if that other person will use the credit to provide goods or services in the energy sector in Iran and is identified on the current list of persons engaged in investment activities in Iran created by DGS.

**OR**

- ☐ 3. Bidder's Total Base Bid is one million dollars (\$1,000,000) or more, but the SCCOE has given prior written permission to Bidder to submit a proposal pursuant to PCC 2203(c) or (d). **A copy of the written permission from the SCCOE is included with Bid.**

I certify that I am duly authorized to legally bind the Bidder to this certification, that the contents of this certification are true, and that this certification is made under the laws of the State of California.

Date: \_\_\_\_\_

Proper Name of Contractor: \_\_\_\_\_

Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

END OF DOCUMENT

**DOCUMENT 00 45 26**

**WORKERS' COMPENSATION CERTIFICATION**

PROJECT/CONTRACT NO.: Lakeside Emergency Generator B06-24-25 between Santa Clara County Office of Education (the "SCCOE" or the "Owner") and \_\_\_\_\_  
(the "Contractor" or the "Bidder") (the "Contract" or the "Project").

Labor Code section 3700 in relevant part provides:

Every employer except the State shall secure the payment of compensation in one or more of the following ways:

- 1 By being insured against liability to pay compensation by one or more insurers duly authorized to write compensation insurance in this state.
- 2 By securing from the Director of Industrial Relations a certificate of consent to self-insure, which may be given upon furnishing proof satisfactory to the Director of Industrial Relations of ability to self-insure and to pay any compensation that may become due to its employees.

I am aware of the provisions of section 3700 of the 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 I will comply with such provisions before commencing the performance of the Work of the Contract.

Date: \_\_\_\_\_

Proper Name of Contractor: \_\_\_\_\_

Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

(In accordance with Article 5 - commencing at section 1860, chapter 1, part 7, division 2 of the Labor Code, the above certificate must be signed and filed with the awarding body prior to performing any Work under the Contract.)

END OF DOCUMENT

**DOCUMENT 00 45 50**

**WAGE THEFT / PREVAILING WAGE AND  
RELATED LABOR REQUIREMENTS CERTIFICATION**

PROJECT/CONTRACT NO.: Lakeside Emergency Generator B06-24-25 between Santa Clara County Office of Education (the "SCCOE" or the "Owner") and \_\_\_\_\_  
(the "Contractor" or the "Bidder") (the "Contract" or the "Project").

I hereby certify that I will conform to the State of California Public Works Contract requirements regarding prevailing wages, benefits, on-site audits with 48-hours' notice, payroll records, and apprentice and trainee employment requirements, for all Work on the Project including, without limitation, the requirement that it and all of its Subcontractors are registered pursuant to Labor Code section 1771, et seq.

I hereby certify that I will conform to the Code of Federal Regulations (CFR) Title 29 -Labor: 29 CFR A/48 FR 19540 – Davis Bacon Act: For the Federal Programs at SCCOE, I shall pay all workers on the Project not less than the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work as determined by the U.S. Department of Labor for construction projects in excess of \$2,000. I shall submit Certified Payroll to SCCOE for any projects in excess of \$2,000.

Date: \_\_\_\_\_

Proper Name of Contractor: \_\_\_\_\_

Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

END OF DOCUMENT

**DOCUMENT 00 45 55**

**DISABLED VETERAN BUSINESS ENTERPRISE  
PARTICIPATION CERTIFICATION**

PROJECT/CONTRACT NO.: Lakeside Emergency Generator B06-24-25 between Santa Clara County Office of Education (the "SCCOE") and \_\_\_\_\_  
(the "Contractor" or the "Bidder") (the "Contract" or the "Project").

Section 17076.11 of the Education Code requires school SCCOE's using funds allocated pursuant to the State of California School Facility Program ("Program") for the construction and/or modernization of school buildings to have a participation goal for disabled veteran business enterprises ("DVBE(s)") of at least three percent (3%), per year, of the overall dollar amount expended each year by the school SCCOE on projects that receive state funding.

Section 2001 of the Public Contract Code requires school SCCOE's to require each Bidder to provide in its bid certain information about its Subcontractors. In addition to completing this certification as indicated herein, each Bidder must provide the information related to DVBEs as required in the Designated Subcontractors List.

1. **Disabled Veteran Business Enterprise.** A DVBE is a business enterprise certified by the California Office of Small Business as a DVBE.
2. **DVBE Participation Policy.** The SCCOE is committed to achieving this DVBE participation goal. The SCCOE encourages Contractor to ensure maximum opportunities for the participation of DVBEs in the Work of the Contract.
3. **DVBE Participation Goal.** The three percent (3%) participation goal is not a quota, set-aside or rigid proportion.
4. **Certification of Participation.** At the time of execution of the Contract, the Contractor will provide a statement to the SCCOE of anticipated participation of DVBEs in the contract.
5. **Submission of Report.** During performance of the Contract, Contractor shall monitor the Work of the Contract, award of subcontracts and contracts for materials, equipment and supplies for the purpose of determining DVBE participation in the Work of the Contract.
  - a) Contractor shall report on a monthly basis all DVBEs utilized in the performance of the Work, the type or classification of the Work performed by each DVBE, and the dollar value of the Work performed by each DVBE.
  - b) Upon completion of the Work of the Contract, Contractor shall submit a report to the SCCOE in the form attached hereto identifying all DVBEs utilized in the performance of the Work, the type or classification of the Work performed by each DVBE, and the dollar value of the Work performed by each DVBE.
    - i) The submission to the SCCOE of this report is a condition precedent to the SCCOE's obligation to make payment of the Final Payment under the Contract Documents. The submission of this report shall be in addition to, and not in lieu of, any other conditions precedent set forth in the Contract Documents for the SCCOE's obligation to make payment of the Final Payment.
    - ii) The SCCOE reserves the right to request additional information or documentation from the Contractor evidencing efforts to comply with the three percent (3%) DVBE participation goal.

### DVBE PARTICIPATION REPORT

Contractor Name: \_\_\_\_\_ Date: \_\_\_\_\_

Project Name: Lakeside Emergency Generator Project Number: B06-24-25

DVBE Firm Name	Trade / Portion of Work	Subcontract/ Contract Value
Add more sheets as needed to include all information for each DVBE		

Does the cumulative dollar value of these DVBE contracts meet or exceed the participation goal of three percent (3%) of the final Contract Price, as adjusted by all change orders?

YES \_\_\_\_\_ NO \_\_\_\_\_

If your response is "NO", please attach to this report a detailed description of the reasons for your firm did not achieve the participation goal of three percent (3%) of the final Contract Price.

I certify and declare under penalty of perjury under the laws of the State of California that all the foregoing information is complete, true, and correct.

Date: \_\_\_\_\_

Proper Name of Contractor: \_\_\_\_\_

Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

END OF DOCUMENT

**DOCUMENT 00 45 60**

**DRUG-FREE WORKPLACE CERTIFICATION**

PROJECT/CONTRACT NO.: Lakeside Emergency Generator B06-24-25 between Santa Clara County Office of Education (the "SCCOE" or the "Owner") and \_\_\_\_\_  
(the "Contractor" or the "Bidder") (the "Contract" or the "Project").

This Drug-Free Workplace Certification form is required from the successful Bidder pursuant to Government Code sections 8350 et seq., the Drug-Free Workplace Act of 1990. The Drug-Free Workplace Act of 1990 requires that every person or organization awarded a contract or grant for the procurement of any property or service from any state agency must certify that it will provide a drug-free workplace by doing certain specified acts. In addition, the Act provides that each contract or grant awarded by a state agency may be subject to suspension of payments or termination of the contract or grant, and the contractor or grantee may be subject to debarment from future contracting, if the contracting agency determines that specified acts have occurred.

The SCCOE is not a "state agency" as defined in the applicable section(s) of the Government Code, but the SCCOE is a local agency and public school SCCOE under California law and requires all contractors on SCCOE projects to comply with the provisions and requirements of Government Code sections 8350 et seq., the Drug-Free Workplace Act of 1990.

Contractor shall certify that it will provide a drug-free workplace by doing all of the following:

1. Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited in the person's or organization's workplace and specifying actions which will be taken against employees for violations of the prohibition;
2. Establishing a drug-free awareness program to inform employees about all of the following:
  - a. The dangers of drug abuse in the workplace.
  - b. The person's or organization's policy of maintaining a drug-free workplace.
  - c. The availability of drug counseling, rehabilitation, and employee-assistance programs.
  - d. The penalties that may be imposed upon employees for drug abuse violations.
3. Requiring that each employee engaged in the performance of the contract or grant be given a copy of the statement required above, and that, as a condition of employment on the contract or grant, the employee agrees to abide by the terms of the statement.

I, the undersigned, agree to fulfill the terms and requirements of Government Code section 8355 listed above and will publish a statement notifying employees concerning (a) the prohibition of controlled substance at the workplace, (b) establishing a drug-free awareness program, and (c) requiring that each employee engaged in the performance of the contract be given a copy of the statement required by section 8355(a), and requiring that the employee agree to abide by the terms of that statement.

I also understand that if the SCCOE determines that I have either (a) made a false certification herein, or (b) violated this certification by failing to carry out the requirements of section 8355, that the Contract awarded herein is subject to termination, suspension of payments, or both. I further understand that, should I violate the terms of the Drug-Free Workplace Act of 1990, I may be subject to debarment in accordance with the requirements of section 8350 et seq.

I acknowledge that I am aware of the provisions of Government Code sections 8350 et seq. and hereby certify that I will adhere to the requirements of the Drug-Free Workplace Act of 1990.

Date: \_\_\_\_\_

Proper Name of Contractor: \_\_\_\_\_

Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

END OF DOCUMENT

**DOCUMENT 00 45 65**

**TOBACCO-FREE ENVIRONMENT CERTIFICATION**

PROJECT/CONTRACT NO.: Lakeside Emergency Generator B06-24-25 between Santa Clara County Office of Education (the "SCCOE" or the "Owner") and \_\_\_\_\_  
(the "Contractor" or the "Bidder") (the "Contract" or the "Project").

This Tobacco-Free Environment Certification form is required from the successful Bidder.

Pursuant to, without limitation, 20 U.S.C section 6083, Labor Code section 6400 et seq., Health & Safety Code section 104350 et seq. and SCCOE Board Policies, all SCCOE sites, including the Project site, are tobacco-free environments. Smoking and the use of tobacco products by all persons is prohibited on or in SCCOE property. SCCOE property includes school buildings, school grounds, school owned vehicles and vehicles owned by others while on SCCOE property.

I acknowledge that I am aware of the SCCOE's policy regarding tobacco-free environments at SCCOE sites, including the Project site and hereby certify that I will adhere to the requirements of that policy and not permit any of my firm's employees, agents, subcontractors, or my firm's subcontractors' employees or agents to use tobacco and/or smoke on the Project site.

Date: \_\_\_\_\_

Proper Name of Contractor: \_\_\_\_\_

Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

END OF DOCUMENT



**DOCUMENT 00 45 70**

**HAZARDOUS MATERIALS CERTIFICATION**

PROJECT/CONTRACT NO.: Lakeside Emergency Generator B06-24-25 between Santa Clara County Office of Education (the "SCCOE" or the "Owner") and \_\_\_\_\_

(the "Contractor" or the "Bidder") (the "Contract" or the "Project").

1. Contractor hereby certifies that no Asbestos, or Asbestos-Containing Materials, polychlorinated biphenyl (PCB), or any material listed by the federal or state Environmental Protection Agency or federal or state health agencies as a hazardous material, or any other material defined as being hazardous under federal or state laws, rules, or regulations ("New Hazardous Material"), shall be furnished, installed, or incorporated in any way into the Project or in any tools, devices, clothing, or equipment used to affect any portion of Contractor's work on the Project for SCCOE.
2. Contractor further certifies that it has instructed its employees with respect to the above-mentioned standards, hazards, risks, and liabilities.
3. Asbestos and/or asbestos-containing material shall be defined as all items containing but not limited to chrysotile, crocidolite, amosite, anthophyllite, tremolite, and actinolite. Any or all material containing greater than one-tenth of one percent (.1%) asbestos shall be defined as asbestos-containing material.
4. Any disputes involving the question of whether or not material is New Hazardous Material shall be settled by electron microscopy or other appropriate and recognized testing procedure, at the SCCOE's determination. The costs of any such tests shall be paid by Contractor if the material is found to be New Hazardous Material.
5. All Work or materials found to be New Hazardous Material or Work, or material installed with equipment containing "New Hazardous Material" will be immediately rejected and this Work will be removed at Contractor's expense at no additional cost to the SCCOE.
6. Contractor has read and understood the document Hazardous Materials Procedures & Requirements and shall comply with all the provisions outlined therein.

Date: \_\_\_\_\_

Proper Name of Contractor: \_\_\_\_\_

Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

END OF DOCUMENT

**DOCUMENT 00 45 75**

**LEAD-BASED MATERIALS CERTIFICATION**

PROJECT/CONTRACT NO.: Lakeside Emergency Generator B06-24-25 between Santa Clara County Office of Education (the "SCCOE" or the "Owner") and \_\_\_\_\_  
(the "Contractor" or the "Bidder") (the "Contract" or the "Project").

This certification provides notice to the Contractor that:

- (1) The Contractor's work may disturb lead-containing building materials.
- (2) The Contractor must notify the SCCOE if any work may result in the disturbance of lead-containing building materials.

**1. Lead as a Health Hazard**

Lead poisoning is recognized as a serious environmental health hazard facing children today. Even at low levels of exposure, much lower than previously believed, lead can impair the development of a child's central nervous system, causing learning disabilities, and leading to serious behavioral problems. Lead enters the environment as tiny lead particles and lead dust disburse when paint chips, chalks, peels, wears away over time, or is otherwise disturbed. Ingestion of lead dust is the most common pathway of childhood poisoning; lead dust gets on a child's hands and toys and then into a child's mouth through common hand-to-mouth activity. Exposures may result from construction or remodeling activities that disturb lead paint, from ordinary wear and tear of windows and doors, or from friction on other surfaces.

Ordinary construction and renovation or repainting activities carried out without lead-safe work practices can disturb lead-based paint and create significant hazards. Improper removal practices, such as dry scraping, sanding, or water blasting painted surfaces, are likely to generate high volumes of lead dust.

Because the Contractor and its employees will be providing services for the SCCOE, and because the Contractor's work may disturb lead-containing building materials, CONTRACTOR IS HEREBY NOTIFIED of the potential presence of lead-containing materials located within certain buildings utilized by the SCCOE. All school buildings built prior to 1993 are presumed to contain some lead-based paint until sampling proves otherwise.

**2. Overview of California Law**

Education Code section 32240 et seq. is known as the Lead Safe Schools Protection Act. Under this act, the Department of Health Services ("DHS") is to conduct a sample survey of schools in the State of California for the purpose of developing risk factors to predict lead contamination in public schools. (Ed. Code, § 32241.)

Any school that undertakes any action to abate existing risk factors for lead is required to utilize trained and state-certified contractors, inspectors, and workers. (Ed. Code, § 32243, subd. (b).) Moreover, lead-based paint, lead plumbing, and solders, or other potential sources of lead contamination, shall not be utilized in the construction of any new school facility or the modernization or renovation of any existing school facility. (Ed. Code, § 32244.)

Both the Federal Occupational Safety and Health Administration ("Fed/OSHA") and the California Division of Occupational Safety and Health ("Cal/OSHA") have implemented safety orders applicable to all construction work where a contractor's employee may be occupationally exposed to lead.

The OSHA Regulations apply to all construction work where a contractor's employee may be occupationally exposed to lead. The OSHA Regulations contain specific and detailed requirements imposed on contractors

subject to that regulation. The OSHA Regulations define construction work as work for construction, alteration, and/or repair, including painting and decorating. It includes, but is not limited to, the following:

- a. Demolition or salvage of structures where lead or materials containing lead are present;
- b. Removal or encapsulation of materials containing lead;
- c. New construction, alteration, repair, or renovation of structures, substrates, or portions thereof, that contain lead, or materials containing lead;
- d. Installation of products containing lead;
- e. Lead contamination/emergency cleanup;
- f. Transportation, disposal, storage, or containment of lead or materials containing lead on the site or location at which construction activities are performed; and
- g. Maintenance operations associated with the construction activities described in the subsection.

Because it is assumed by the SCCOE that all painted surfaces (interior as well as exterior) within the SCCOE contain some level of lead, it is imperative that the Contractor, its workers and subcontractors fully and adequately comply with all applicable laws, rules and regulations governing lead-based materials (including title 8, California Code of Regulations, section 1532. 1).

**The Contractor must notify the SCCOE if any Work may result in the disturbance of lead-containing building materials. Any and all Work that may result in the disturbance of lead-containing building materials must be coordinated through the SCCOE. A signed copy of this Certification must be on file prior to beginning Work on the Project, along with all current insurance certificates.**

### **3. Renovation, Repair and Painting Rule, Section 402(c)(3) of the Toxic Substances Control Act**

In 2008, the U.S. Environmental Protection Agency, issued a rule pursuant to the authority of Section 402(c)(3) of the Toxic Substances Control Act, requiring lead safe work practices to reduce exposure to lead hazards created by renovation, repair and painting activities that disturb lead-based paint (Renovation, Repair and Painting Rule). Renovations in homes, childcare facilities, and schools built prior to 1978 must be conducted by certified renovations firms, using renovators with accredited training, and following the work practice requirements to reduce human exposures to lead.

Contractor, its workers and subcontractors must fully and adequately comply with all applicable laws, rules and regulations governing lead-based materials, including those rules and regulations appearing within title 40 of the Code of Federal Regulations as part 745 (40 CFR 745).

The requirements apply to all contractors who disturb lead-based paint in a six-square-foot area or greater indoors or a 20-square-foot area outdoors. If a DPH-certified inspector or risk assessor determines that a home constructed before 1978 is lead-free, the federal certification is not required for anyone working on that particular building.

### **4. Contractor's Liability**

If the Contractor fails to comply with any applicable laws, rules, or regulations, and that failure results in a site or worker contamination, the Contractor will be held solely responsible for all costs involved in any required

corrective actions, and shall defend, indemnify, and hold harmless the SCCOE, pursuant to the indemnification provisions of the Contract, for all damages and other claims arising therefrom.

If lead disturbance is anticipated in the Work, only persons with appropriate accreditation, registrations, licenses, and training shall conduct this Work.

It shall be the responsibility of the Contractor to properly dispose of any and all waste products, including, but not limited to, paint chips, any collected residue, or any other visual material that may occur from the prepping of any painted surface. It will be the responsibility of the Contractor to provide the proper disposal of any hazardous waste by a certified hazardous waste hauler. This company shall be registered with the Department of Transportation (DOT) and shall be able to issue a current manifest number upon transporting any hazardous material from any school site within the SCCOE.

The Contractor shall provide the SCCOE with any sample results prior to beginning Work, during the Work, and after the completion of the Work. The SCCOE may request to examine, prior to the commencement of the Work, the lead training records of each employee of the Contractor.

The Contractor hereby acknowledges, under penalty of perjury, that it:

1. Has received notification of potential lead-based materials on the SCCOE's property;
2. Is knowledgeable regarding and will comply with all applicable laws, rules, and regulations governing work with, and disposal of, lead.

The undersigned warrants that he/she has the authority to sign on behalf of and bind the Contractor. The SCCOE may require proof of such authority.

Date: \_\_\_\_\_

Proper Name of Contractor: \_\_\_\_\_

Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

END OF DOCUMENT

**DOCUMENT 00 45 80**

**IMPORTED MATERIALS CERTIFICATION**

PROJECT/CONTRACT NO.: Lakeside Emergency Generator B06-24-25 between Santa Clara County Office of Education (the "SCCOE" or the "Owner") and \_\_\_\_\_  
(the "Contractor" or the "Bidder") (the "Contract" or the "Project").

This form shall be executed by Contractor and by all entities that, in any way, provide or deliver and/or supply any soils, aggregate, or related materials ("Fill") to the Project Site. All Fill shall satisfy the requirements of any environmental review of the Project performed pursuant to the statutes and guidelines of the California Environmental Quality Act, sections 21000 et seq. of the Public Resources Code ("CEQA"), and the requirements of sections 17210 et seq. of the Education Code, including requirements for a Phase I environmental assessment acceptable to the State of California Department of Education and Department of Toxic Substances Control.

To the furthest extent permitted by California law, the indemnification provisions in the Contract Documents apply to, without limitation, any claim(s) connected with providing, delivering, and/or supplying Fill.

Certification of:      ☐ Delivery Firm/Transporter      ☐ Supplier      ☐ Manufacturer  
                                 ☐ Wholesaler      ☐ Broker      ☐ Retailer  
                                 ☐ Distributor      ☐ Other \_\_\_\_\_

Type of Entity:      ☐ Corporation      ☐ General Partnership  
                                 ☐ Limited Partnership      ☐ Limited Liability Company  
                                 ☐ Sole Proprietorship      ☐ Other \_\_\_\_\_

Name of firm ("Firm"): \_\_\_\_\_

Mailing address: \_\_\_\_\_

Addresses of branch office used for this Project: \_\_\_\_\_

If subsidiary, name and address of parent company: \_\_\_\_\_

By my signature below, I hereby certify that I am aware of section 25260 of the Health and Safety Code and the sections referenced therein regarding the definition of hazardous material. I further certify on behalf of the Firm that all soils, aggregates, or related materials provided, delivered, and/or supplied or that will be provided, delivered, and/or supplied by this Firm to the Project Site are free of any and all hazardous material as defined in section 25260 of the Health and Safety Code. I further certify that I am authorized to make this certification on behalf of the Firm.

Date: \_\_\_\_\_

Proper Name of Contractor: \_\_\_\_\_

Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

END OF DOCUMENT

**DOCUMENT 00 45 85**

**CRIMINAL BACKGROUND INVESTIGATION / FINGERPRINTING CERTIFICATION**

PROJECT/CONTRACT NO.: Lakeside Emergency Generator B06-24-25 between Santa Clara County Office of Education (the "SCCOE" or the "Owner") and \_\_\_\_\_  
(the "Contractor" or the "Bidder") (the "Contract" or the "Project").

The undersigned does hereby certify to SCCOE that:

- (1) He/she is a representative of the Contractor,
- (2) He/she is familiar with the facts herein certified,
- (3) He/she is authorized and qualified to execute this certificate on behalf of Contractor; and
- (4) That the information in this Criminal Background Investigation / Fingerprinting Certification is true and correct.

1. **Education Code.** Contractor has taken at least one of the following actions with respect to the Project (check all that apply):

\_\_\_\_\_ The Contractor has complied with the fingerprinting requirements of Education Code section 45125.1 with respect to all Contractor's employees and all of its subcontractors' employees who may have contact with SCCOE pupils in the course of providing services pursuant to the Contract, and the California Department of Justice ("DOJ") has determined (per the DOJ process for Applicant Agencies described more fully on its website, located at: <http://oag.ca.gov/fingerprints/agencies>) that none of those employees have been convicted of a felony, as that term is defined in Education Code section 45122.1. A complete and accurate list of Contractor's employees and of all of its subcontractors' employees who may come in contact with SCCOE pupils during the course and scope of the Contract is attached hereto; and/or

\_\_\_\_\_ Pursuant to Education Code section 45125.2, Contractor has installed or will install, prior to commencement of work, a physical barrier at the Project site, that will limit contact between Contractor's employees and SCCOE pupils at all times; and/or

\_\_\_\_\_ Pursuant to Education Code section 45125.2, Contractor certifies that all employees will be under the continual supervision of, and monitored by, an employee of the Contractor who the California Department of Justice has ascertained has not been convicted of a violent or serious felony. The name and title of the employee who will be supervising Contractor's employees and its subcontractors' employees is:

**Name:** \_\_\_\_\_

**Title:** \_\_\_\_\_

\_\_\_\_\_ The Work on the Contract is at an unoccupied school site and no employee and/or subcontractor or supplier of any tier of Contract shall come in contact with the SCCOE pupils.

2. **Megan's Law (Sex Offenders).** I have verified and will continue to verify that the employees of Contractor that will be on the Project site and the employees of the Subcontractor(s) that will be on the Project site are **not** listed on California's "Megan's Law" Website (<http://www.meganslaw.ca.gov/>).

Contractor's responsibility for background clearance extends to all of its employees, subcontractors, and employees of subcontractors coming into contact with SCCOE pupils regardless of whether they are designated as employees or acting as independent contractors of the Contractor.

Date: \_\_\_\_\_

Proper Name of Contractor: \_\_\_\_\_

Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

END OF DOCUMENT

**DOCUMENT 00 45 90**

**ROOFING CONTRACT FINANCIAL INTEREST CERTIFICATION (Public Contract Code § 3006)**

PROJECT/CONTRACT NO.: Lakeside Emergency Generator B06-24-25 between Santa Clara County Office of Education (the "SCCOE" or the "Owner") and \_\_\_\_\_

(the "Contractor" or the "Bidder") (the "Contract" or the "Project").

I, \_\_\_\_\_ **[Your Name]**, \_\_\_\_\_ **[Firm Name]**

certify that I have not offered, given, or agreed to give, received, accepted, or agreed to accept, any gift, contribution, or any financial incentive whatsoever to or from any person in connection with a roof project contract or subcontract on the Project. As used in this certification, "person" means any natural person, business, partnership, corporation, union, committee, club, or other organization, entity, or group of individuals.

I, \_\_\_\_\_ **[Your Name]**, \_\_\_\_\_ **[Firm Name]**

certify that I do not have, and throughout the duration of the Contract, I will not have, any financial relationship in connection with the performance of the Contract with any architect, engineer, roofing consultant, materials manufacturer, distributor, or vendor that is not disclosed below.

I, \_\_\_\_\_ **[Your Name]**, \_\_\_\_\_ **[Firm Name]**

have the following financial relationships with an architect, engineer, roofing consultant, materials manufacturer, distributor, or vendor, or other person in connection with the following roof project contract:

Name of firm ("Firm"): \_\_\_\_\_

Mailing address: \_\_\_\_\_

Address of branch office used for this Project: \_\_\_\_\_

If subsidiary, name and address of parent company: \_\_\_\_\_

For Projects without substantive roofing components, check the following box and execute this certification:

☐

The Work on the Contract (1) does not include the replacement or repair of a roof or (2) is a repair of twenty five percent (25%) or less of the roof, (3) or is a repair project that has a total cost of twenty-one thousand dollars (\$21,000) or less.

I certify that to the best of my knowledge, the contents of this disclosure are true, or are believed to be true.

Date: \_\_\_\_\_

Proper Name of Contractor: \_\_\_\_\_

Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

END OF DOCUMENT



**DOCUMENT 00 51 00**

**NOTICE OF AWARD**

Dated: \_\_\_\_\_, 20\_\_

To: \_\_\_\_\_  
("Contractor")  
\_\_\_\_\_  
(Address)

From: [SCCOE NAME] ("SCCOE" or "Owner")

Re: \_\_\_\_\_ Project  
("Project" or "Contract")

Contractor was awarded the Contract on \_\_\_\_\_, 20\_\_, [**CHOOSE ONE:**] by action of the SCCOE's Board [**OR**] by action of the superintendent or superintendent's designee pursuant to a delegation of authority by the SCCOE's Board.

The Contract Price is \_\_\_\_\_ Dollars (\$\_\_\_\_\_) and includes alternates \_\_\_\_\_.

Three (3) copies of each of the Contract Documents (except Drawings) accompany the Notice of Award. Three (3) sets of the Drawings will be delivered separately or otherwise made available. Additional copies are available at cost of reproduction.

Contractor must comply with the following conditions precedent within **SEVEN (7)** calendar days of the date of this Notice of Award.

Contractor shall execute and submit the following Contract Documents by 5:00 p.m. of the **SEVENTH (7<sup>TH</sup>)** calendar day following the receipt of the Notice of Award. Failure to properly and timely submit the following Contract Documents entitles SCCOE to reject Contractor's bid as non-responsive.

- a. Agreement: Submit four (4) copies, each bearing an original signature. **If Contractor is a corporation, Contractor must attach a certified copy of the corporation's by-laws, or the resolution of the Board of Directors of the corporation, authorizing the signatory to execute the Agreement and the bonds required by the Contract Documents.**
- b. Performance Bond (100%): Fully executed form provided in the Contract Documents.
- c. Payment Bond (100%) (Contractor's Labor and Material Bond): Fully executed form provided in the Contract Documents.
- d. Insurance Certificates and Endorsements.
- e. Workers' Compensation Certification.
- f. Prevailing Wage and Related Labor Requirements Certification.

- g. Disabled Veterans' Business Enterprise Participation Certification.
- h. Drug-Free Workplace Certification.
- i. Smoke-Free Environment Certification.
- j. Hazardous Materials Certification.
- k. Lead-Based Paint Certification.
- l. Imported Materials Certification.
- m. Criminal Background Investigation/Fingerprinting Certification.
- n. Roofing Contract Financial Interest Certification

Failure to comply with these conditions within the time specified will entitle SCCOE to consider Contractor's bid abandoned, to annul the Notice of Award, and to declare Contractor's Bid Security forfeited, as well as any other rights the SCCOE may have against Contractor.

SCCOE will return to Contractor one fully signed counterpart of the Agreement.

\_\_\_\_\_ SCHOOL SCCOE

BY: \_\_\_\_\_

NAME: \_\_\_\_\_

TITLE: \_\_\_\_\_

END OF DOCUMENT

**DOCUMENT 00 52 13**

**AGREEMENT**

THIS AGREEMENT IS MADE AND ENTERED INTO THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_\_, by and between the Santa Clara County Office of Education ("SCCOE" or "Owner") and \_\_\_\_\_ ("Contractor") ("Agreement"). The SCCOE and the Contractor agree as follows:

1. **The Work:** Contractor shall furnish all tools, equipment, apparatus, facilities, labor, and material necessary to perform and complete in a good and workmanlike manner, the work of the following project:

PROJECT: Lakeside Emergency Generator (Project Name)

("Project" or "Contract" or "Work")

The Work shall be performed and completed as required in the Contract Documents as defined in the General Conditions including, without limitation, the Drawings and Specifications, under the direction and supervision of, and subject to, the approval of the SCCOE or its authorized representative.

2. **The Contract Documents:**

- a. The complete Contract consists of all Contract Documents as defined in the General Conditions and incorporated herein by this reference. All obligations of the SCCOE and Contractor are fully set forth and described in the Contract Documents. The Contract Documents are intended to cooperate so that Work called for in one and not mentioned in the other or vice versa is to be performed the same as if mentioned in all Contract Documents.
- b. **Interpretation of Contract Documents:** Questions concerning the intent, precedence, or meaning of the Contract Documents, including the Drawings or Specifications, shall be submitted to the SCCOE for interpretation. Inconsistencies in the Contract Documents shall be resolved by giving precedence in the following order:

- (i) SCCOE-approved modifications, beginning with the most recent (if any);
- (ii) Agreement;
- (iii) Special Conditions (if any);
- (iv) Supplemental Conditions (if any);
- (v) General Conditions;
- (vi) Remaining Division 0 documents (Documents beginning with "00");;
- (vii) Division 1 Documents (Specifications – General Conditions; Documents beginning with "01");
- (viii) Division 2 through Division 32 documents (Technical Specifications);
- (ix) Figured dimensions;
- (x) Large-scale drawings;
- (xi) Small-scale drawings.

In no case shall a document calling for lower quality and/or quantity material or workmanship control. The decision of the SCCOE in the matter shall be final.

3. **Time For Completion:** It is hereby understood and agreed that the Contractor shall complete the Work within \_\_\_\_\_ [SPELL OUT COMPLETION DAYS PRIOR TO PUTTING OUT TO BID] (\_\_\_\_\_) [INDICATE NUMBER OF DAYS] consecutive calendar days ("Contract Time") from the date specified in the SCCOE's Notice to Proceed. The SCCOE shall

not approve an early completion schedule by Contractor. A schedule showing the Work completed in less than the Contract Time indicated in the Contract, shall be considered to have Project Float. **[IF COMPLETION DATE IS REQUIRED, THEN PUT IN SPECIFIC COMPLETION DATE – THIS WOULD BE AN EXCEPTION TO THE STANDARD LISTING OF THE NUMBER OF DAYS. ENSURE THIS PARAGRAPH IS CONSISTENT WITH THE NOTICE TO PROCEED.]**

4. **Completion-Extension Of Time:** If Contractor fails to complete the Work within the Contract Time, due allowance being made for the contingencies provided for herein, Contractor shall become liable to SCCOE for all loss and damage that SCCOE may suffer on account thereof. Contractor shall coordinate its Work with the work of all other contractors. The SCCOE shall not be liable for delays resulting from Contractor's failure to coordinate its Work with other contractors in a manner that allows for timely completion of Contractor's Work. Contractor shall be liable for delays to other contractors caused by Contractor's failure to coordinate its Work with the work of other contractors.
5. **Liquidated Damages:** Time is of the essence for all Work to be performed. It is hereby understood and agreed that it is and will be difficult and/or impossible to ascertain and determine the actual damage that SCCOE will sustain in the event of and by reason of Contractor's delay; therefore, Contractor shall forfeit to SCCOE the following sum(s) ("Liquidated Damages"):
  - **Project Completion: Five hundred dollars (\$500.00)** per day as Liquidated Damages for each and every day's delay beyond the Contract Time to complete all the Work.
  - a. Each portion of the Liquidated Damages shall be calculated cumulatively. For example, if Contractor is late in completing two milestones and the entire Project, Contractor will forfeit three separate Liquidated Damages amounts.
  - b. It is hereby understood and agreed that neither the total cumulative Liquidate Damages amount, nor any portion of the Liquidated Damage amount are penalties.
  - c. SCCOE may deduct Liquidated Damages from money due or that may become due Contractor under this Agreement. Contractor's forfeiture of Liquidated Damages to SCCOE, and SCCOE's right to retain Liquidated Damages, are as indicated in Government Code section 53069.85 and as indicated herein and in the General Conditions.
  - d. Liquidated Damages are automatically and without notice of any kind forfeited by Contractor upon the accrual of each day of delay. Neither SCCOE's failure or delay in deducting Liquidated Damages from payments otherwise due the Contractor, nor SCCOE's failure or delay in notifying Contractor of the forfeiture of Liquidated Damages, shall be deemed a waiver of SCCOE's right to Liquidated Damages.
  - e. Contractor and Surety shall be liable for and pay to SCCOE the entire amount of Liquidated Damages including any portion that exceeds the amount of the Contract Price then held, retained or controlled by SCCOE.
  - f. Liquidated Damages shall be in addition, and not in lieu of, SCCOE's right to charge Contractor for the SCCOE's cost of completing or correcting items of the Work.
  - g. SCCOE may extend the Contract Time if Work is delayed for causes outside the Contractor's control, as further described in the General Conditions. This provision does not exclude the recovery of damages for delay by either party under other provisions in the Contract Documents.

6. **Loss or Damage:** SCCOE and its authorized representatives shall not be answerable or suffer loss, damage, expense, or liability for any loss or damage that occurs to the Work, or any part thereof, during its construction and before Completion. Contractor shall assume all liabilities of every kind or nature arising from the Work, either by accident, negligence, theft, vandalism, or any cause whatever; and shall hold SCCOE and its authorized representatives harmless from all liability of every kind and nature arising from accident, negligence, or any cause whatever.
7. **Insurance and Bonds:** Contractor shall provide all required certificates of insurance, and payment and performance bonds.
8. **Performance of Work:** If Contractor fails to perform the Work properly or fails to perform any provisions of this Contract, the SCCOE, may, pursuant to the General Conditions and without prejudice to any other remedy it may have, cure the deficiencies and deduct the cost thereof from the payment then or thereafter due Contractor.
9. **Authority of Architect, Project Inspector, and DSA:** Contractor hereby acknowledges that the Architect(s), the Project Inspector(s), and the Division of the State Architect have authority to approve and/or stop Work if Contractor's Work does not comply with the requirements of the Contract Documents, Title 24 of the California Code of Regulations, and all applicable laws. Contractor shall be liable for any delay caused by its non-compliant Work.
10. **Assignment of Contract:** Neither the Contract, nor any part thereof, nor any moneys due or to become due thereunder, may be assigned by Contractor without the written approval of SCCOE, nor without the written consent of the Surety on Contractor's Performance Bond (the "Surety"), unless the Surety has waived in writing its right to notice of assignment.
11. **Classification of Contractor's License:** Contractor hereby acknowledges that it currently holds valid Type B **General Building Contractor** Contractor's license(s) issued by the State of California, Contractor's State Licensing Board, in accordance with division 3, chapter 9, of the Business and Professions Code and in the classification called for in the Contract Documents.
12. **Payment of Prevailing Wages:** Contractor and all Subcontractors under Contractor shall pay all workers on Work performed pursuant to this Contract not less than the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work as determined by the Director of the Department of Industrial Relations, State of California, for the type of work performed and the locality in which the work is to be performed within the boundaries of the SCCOE, pursuant to sections 1770 et seq. of the California Labor Code.
13. **Contractor & Subcontractor Registration:** Contractor shall comply with the registration and compliance monitoring provisions of Labor Code section 1771.4, including complying with any applicable enforcement by the Department of Industrial Relations.

- 14. Contract Price:** In consideration of the foregoing covenants, promises, and agreements, Contractor offers, in the amounts stated below, to perform the Work according to the Contract Documents. SCCOE covenants, promises, and agrees that it will pay and cause to be paid to Contractor in full, and as the Contract Price the following amount(s):

\_\_\_\_\_ Dollars

(\$ \_\_\_\_\_), (Base Contract Amount)

+

\_\_\_\_\_ Dollars

(\$ \_\_\_\_\_), (\_\_\_\_\_ Allowance Amount)  
[LIST ALLOWANCE TYPE AND AMOUNT, IF APPLICABLE]

+

\_\_\_\_\_ Dollars

(\$ \_\_\_\_\_), (\_\_\_\_\_ Allowance Amount)  
[LIST ALLOWANCE TYPE AND AMOUNT, IF APPLICABLE]

+

\_\_\_\_\_ Dollars

(\$ \_\_\_\_\_), (\_\_\_\_\_ Allowance Amount)  
[LIST ALLOWANCE TYPE AND AMOUNT, IF APPLICABLE]

---

=

\_\_\_\_\_ Dollars

(\$ \_\_\_\_\_), ("Contract Price")

- a. The above Allowances are within the Contract Price only to the extent Contractor has performed Work encompassed by the Allowance description, Contractor has appropriately invoiced for that Work, and SCCOE has approved Contractor's invoice. Contractor shall invoice only for components of the Work encompassed by the Allowance description, in the identical structure as a Change Order. The unused portion of each Allowance shall be retained by the SCCOE.
- b. The Contract Price shall be paid in lawful money of the United States pursuant to the payment provisions in the General Conditions.

- 15. Authority of Contractor's Representative:** Contractor hereby certifies that its legal representative as defined in the General Conditions and the person(s) its employees on the Project at or above the level of project superintendent, each have the authority to legally bind the Contractor.

**16. Severability:** If any term, covenant, condition, or provision of the Contract Documents is held by a court of competent jurisdiction to be invalid, void or unenforceable, the remainder of the provisions in the Contract Documents shall remain in full force and effect and shall in no way be affected, impaired, or invalidated thereby.

IN WITNESS WHEREOF, accepted and agreed on the date indicated above:

Dated: \_\_\_\_\_, 20\_\_

Dated: \_\_\_\_\_, 20\_\_

\_\_\_\_\_  
SCCOE

\_\_\_\_\_  
CONTRACTOR

By: \_\_\_\_\_

By: \_\_\_\_\_

Print Name: \_\_\_\_\_

Print Name: \_\_\_\_\_

Print Title: \_\_\_\_\_

Print Title: \_\_\_\_\_

**NOTE:** If the Contractor is a corporation, Contractor must attach a certified copy of the corporation's by-laws, or of the resolution of the Board of Directors of the corporation, authorizing the above person to execute this Agreement and the bonds required by the Contract Documents.

END OF DOCUMENT

**DOCUMENT 00 54 60**

**HAZARDOUS MATERIALS PROCEDURES & REQUIREMENTS**

**1. Summary**

This document includes information applicable to hazardous materials and hazard waste abatement.

**2. Notice of Hazardous Waste or Materials Conditions**

- a. Contractor shall give written notice to SCCOE, Construction Manager, and Architect promptly, before any of the following conditions are disturbed, and in no event later than twenty-four (24) hours after first observance, of any:
  - (1) Material that Contractor believes may be material that is hazardous waste or hazardous material, 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) Other material that may present a substantial danger to persons or property exposed thereto in connection with Work at the Project Site.
- b. Contractor's written notice shall indicate whether the hazardous waste or material was shown or indicated in the Contract Documents to be within the scope of Work, and whether the materials were brought to the site by Contractor, its Subcontractors, suppliers, or anyone else for whom Contractor is responsible. As used in this section the term "hazardous materials" shall include, without limitation, asbestos, lead, Polychlorinated biphenyl (PCB), petroleum and related hydrocarbons, and radioactive material.
- c. In response to Contractor's written notice, the SCCOE shall investigate the identified conditions.
- d. If SCCOE determines that conditions do not involve hazardous materials or that no change in terms of Contract is justified, SCCOE shall so notify Contractor in writing, stating reasons. If SCCOE and Contractor cannot agree on whether conditions justify an adjustment in Contract Price or Contract Time, or on the extent of any adjustment, Contractor shall proceed with the Work as directed by SCCOE.
- e. If after receipt of notice from SCCOE, Contractor does not agree to resume Work based on a reasonable belief it is unsafe or does not agree to resume Work under special conditions, then SCCOE may order that portion of Work connected with the hazardous condition or affected area, be deleted from the Work, or performed by others, or SCCOE may invoke its rights to terminate the Contract in whole or in part. SCCOE will determine entitlement to or the amount or extent of an adjustment, if any, in Contract Price or Contract Time as a result of deleting such portion of Work or performing the Work by others.
- f. If Contractor stops Work in connection with any hazardous condition and in any area affected thereby, Contractor shall immediately redeploy its workers, equipment, and materials, as necessary, to other portions of the Work to minimize delay and disruption.

**3. Additional Warranties and Representations**

- a. Contractor represents and warrants that it, its employees, and its subcontractors and their employees, shall at all times have the required levels of familiarity with the Project Site and the Work, training, and ability to comply fully with all applicable law and contract requirements for safe and expeditious performance of the Work, including whatever training is or may be required regarding the activities to be



performed (including, but not limited to, all training required to address adequately the actual or potential dangers of Contract performance).

- b. Contractor represents and warrants that it, its employees, and its subcontractors and their employees, shall at all times have and maintain in good standing any and all certifications and licenses required by applicable federal, state, and other governmental and quasi-governmental requirements applicable to the Work.
- c. Contractor represents and warrants that it has studied carefully all requirements of the Specifications regarding procedures for demolition, hazardous waste abatement, or safety practices, specified in the Contract, and prior to submitting its bid, has either (a) verified to its satisfaction that the specified procedures are adequate and sufficient to achieve the results intended by the Contract Documents, or (b) by way of approved "or equal" request or request for clarification and written Addenda, secured changes to the specified procedures sufficient to achieve the results intended by the Contract Documents. Contractor accepts the risk that any specified procedure will result in a completed Project in full compliance with the Contract Documents.

#### **4. Monitoring and Testing**

- a. SCCOE reserves the right, in its sole discretion, to conduct air monitoring, earth monitoring, Work monitoring, and any other tests (in addition to testing required under the agreement or applicable law), to monitor Contract requirements of safe and statutorily compliant work methods and (where applicable) safe re-entry level air standards under state and federal law upon completion of the job, and compliance of the work with periodic and final inspection by public and quasi-public entities having jurisdiction.
- b. Contractor acknowledges that SCCOE has the right to perform, or cause to be performed, various activities and tests including, but not limited to, pre-abatement, during abatement, and post-abatement air monitoring, that SCCOE shall have no obligation to perform said activities and tests, and that a portion of said activities and tests may take place prior to the completion of the Work by Contractor. In the event SCCOE elects to perform these activities and tests, Contractor shall afford SCCOE ample access to the Site and all areas of the Work as may be necessary for the performance of these activities and tests. Contractor will include the potential impact of these activities or tests by SCCOE in the Contract Price and the Scheduled Completion Date.
- c. Notwithstanding SCCOE's rights granted by this paragraph, Contractor may retain its own industrial hygiene consultant at Contractor's own expense and may collect samples and perform tests including, but not limited to, pre-abatement, during abatement, and post-abatement personal air monitoring, and SCCOE reserves the right to request documentation of all such activities and tests performed by Contractor relating to the Work and Contractor shall provide that documentation immediately upon request, but in no event later than **THREE (3)** days upon request.

#### **5. Compliance with Laws**

- a. Contractor shall perform safe, expeditious, and orderly work in accordance with the best practices and the highest standards in the hazardous waste abatement, removal, and disposal industry, the applicable law, and the Contract Documents, including, but not limited to, all responsibilities relating to the preparation and return of waste shipment records, all requirements of the law, delivering of all requisite notices, and obtaining all necessary governmental and quasi-governmental approvals.
- b. Contractor represents that it is familiar with and shall comply with all laws applicable to the Work or completed Work including, but not limited to, all federal, state, and local laws, statutes, standards, rules, regulations, and ordinances applicable to the Work relating to:

- (1) The protection of the public health, welfare and environment;
- (2) Storage, handling, or use of asbestos, PCB, lead, petroleum-based products or other hazardous materials;
- (3) The generation, processing, treatment, storage, transport, disposal, destruction, or other management of asbestos, PCB, lead, petroleum, or hazardous waste materials or other waste materials of any kind; and
- (4) The protection of environmentally sensitive areas such as wetlands and coastal areas.

## **6. Disposal**

- a. Contractor has the sole responsibility for determining current waste storage, handling, transportation, and disposal regulations for the Project Site and for each waste disposal facility. Contractor must comply fully at its sole cost and expense with these regulations and any applicable law. SCCOE may, but is not obligated to, require submittals with this information for it to review consistent with the Contract Documents.
- b. Contractor shall develop and implement a system acceptable to SCCOE to track hazardous waste from the Project Site to disposal, including appropriate "Hazardous Waste Manifests" on the EPA form, so that SCCOE may track the volume of waste deposited in each landfill and receive from each facility a certificate of receipt.
- c. Contractor shall provide SCCOE with the name and address of each waste disposal facility prior to any disposal, and SCCOE shall have the right to reject any proposed disposal facility. Contractor shall not use any disposal facility to which SCCOE has objected. Contractor shall document actual disposal or destruction of waste at a designated facility by completing a disposal certificate or certificate of destruction forwarding the original to SCCOE.

## **7. Permits**

- a. Before performing any of the Work, and at such other times as may be required by applicable law, Contractor shall deliver all requisite notices and obtain the approval of all governmental and quasi-governmental authorities having jurisdiction over the Work. Contractor shall submit evidence satisfactory to SCCOE that Contractor and any disposal facility:
  - (1) have obtained all required permits, approvals, and the like in a timely manner both prior to commencement of the Work and thereafter as and when required by applicable law, and
  - (2) are in compliance with all such permits, approvals and the regulations.

For example, before commencing any work in connection with the Work involving asbestos-containing materials, or PCBs, or other hazardous materials subject to regulation, Contractor agrees to provide the required notice of intent to renovate or demolish to the appropriate state or federal agency having jurisdiction, by certified mail, return receipt requested, or by some other method of transmittal for which a return receipt is obtained, and to send a copy of that notice to SCCOE. Contractor shall not conduct any Work involving asbestos-containing materials or PCBs unless Contractor has first confirmed that the appropriate agency having jurisdiction is in receipt of the required notification. All permits, licenses, and bonds that are required by governmental or quasi-governmental authorities, and all fees, deposits, tap fees, offsite easements, and asbestos and PCB

disposal facilities expenses necessary for the prosecution of the Work, shall be procured and paid for by Contractor. Contractor shall give all notices and comply with all applicable laws bearing on the conduct of the Work as drawn and specified. If Contractor observes or reasonably should have observed that Plans and Specifications and other Contract Documents are at variance therewith, it shall be responsible for promptly notifying SCCOE in writing of such fact. If Contractor performs any Work contrary to applicable laws, it shall bear all costs arising therefrom.

- b. In the case of any permits or notices held in SCCOE's name or of necessity to be made in SCCOE's name, SCCOE shall cooperate with Contractor in securing the permit or giving the notice, but the Contractor shall prepare for SCCOE review and execution upon approval, all necessary applications, notices, and other materials.

## **8. Indemnification**

- a. To the extent permitted by law, the indemnity obligations, defense obligations, and limitations of liability expressed in the Contract Documents apply with equal force and effect to any claims or liabilities imposed or existing by virtue of the removal, abatement, and disposal of hazardous waste. This includes, but is not limited to, liabilities connected to the selection and use of a waste disposal facility, a waste transporter, personal injury, property damage, loss of use of property, damage to the environment or natural resources, or "disposal" and "release" of materials associated with the Work (as defined in 42 U.S.C. §§ 9601 et seq.).

## **9. Termination**

- a. SCCOE shall have an absolute right to terminate for default immediately without notice and without an opportunity to cure should Contractor knowingly or recklessly commit a material breach of the terms of the Contract Documents, or any applicable law, on any matter involving the exposure of persons or property to hazardous waste. However, if the breach of contract exposing persons or property to hazardous waste is due solely to an ordinary, unintentional, and non-reckless failure to exercise reasonable care, then the Contract Documents' provisions related to termination for cause shall apply without modification.

END OF DOCUMENT

**DOCUMENT 00 54 70**

**STORM WATER POLLUTION PREVENTION PLAN**

**Not Applicable**

END OF DOCUMENT

**DOCUMENT 00 55 00**

**NOTICE TO PROCEED**

Dated: \_\_\_\_\_, 20\_\_

To: \_\_\_\_\_  
("Contractor")  
\_\_\_\_\_  
(Address)

From: **Name of Who will be signing the document** of Santa Clara County Office of Education ("SCCOE" or "Owner")

Re: \_\_\_\_\_ Project  
("Project" or "Contract")

Contractor is hereby notified that the Contract Time under the Contract will commence to run on \_\_\_\_\_, 20\_\_. By that date, Contractor shall start performing its obligations under the Contract Documents. In accordance with the Agreement executed by Contractor, the Contract Time and Project Completion is \_\_\_\_\_, 20\_\_. **[ENSURE THIS PARAGRAPH IS CONSISTENT WITH THE "TIME OF COMPLETION" SECTION OF THE AGREEMENT (DOCUMENT 00 52 13)]**

Contractor must submit the following documents by 5:00 p.m. of the **TENTH (10<sup>TH</sup>)** calendar day following the date of this Notice to Proceed:

1. Contractor's preliminary schedule of construction.
2. Contractor's preliminary schedule of submittals, including Shop Drawings, Product Data, and Samples submittals.
3. Contractor's preliminary schedule of values for all of the Work.
4. Contractor's preliminary Contractor's Safety Plan specifically adapted for the Project.
5. A complete subcontractors list, including the name, address, telephone number, facsimile number, California State Contractor's License number, classification, and monetary value of all Subcontracts.

Thank you. We look forward to a successful Project.

Santa Clara County Office of Education

BY: \_\_\_\_\_

NAME:

TITLE:

END OF DOCUMENT

**DOCUMENT 00 61 14**

**PERFORMANCE BOND (100% of Contract Price)**

**(Note: Bidders must use this form, NOT a surety company form.)**

**KNOW ALL PERSONS BY THESE PRESENTS:**

**WHEREAS**, Santa Clara County Office of Education ("SCCOE") and \_\_\_\_\_  
\_\_\_\_\_, ("Principal") have entered into a contract for the furnishing of all materials and labor, services and transportation, necessary, convenient, and proper to perform the following project:

Lakeside Emergency Generator (Project Name)  
("Project" or "Contract")

which Contract dated \_\_\_\_\_, 20\_\_\_\_, and all of the Contract Documents attached to or forming a part of the Contract, are hereby referred to and made a part hereof, and

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

**NOW, THEREFORE**, the Principal and \_\_\_\_\_ ("Surety") are held and firmly bound unto the SCCOE in the penal 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, successors, and assigns jointly and severally, firmly by these presents, to:

- Perform all the work required to complete the Project; and
- Pay to the SCCOE all damages the SCCOE incurs as a result of the principal's failure to perform all the Work required to complete the Project.

The condition of the obligation is such that, if the above bounden Principal, his or its heirs, executors, administrators, successors, or assigns, shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions, and agreements in the Contract and any alteration thereof made as therein provided, on his or its part to be kept and performed at the time and in the intent and meaning, including all contractual guarantees and warranties of materials and workmanship, and shall indemnify and save harmless the SCCOE, its trustees, officers and agents, as therein stipulated, then this obligation shall become null and void, otherwise it shall be and remain in full force and virtue.

As a condition precedent to the satisfactory completion of the Contract, the above obligation shall hold good for a period equal to the warranty and/or guarantee period of the Contract, during which time Surety's obligation shall continue if Contractor shall fail to make full, complete, and satisfactory repair, replace, and totally protect the SCCOE from loss or damage resulting from or caused by defective materials or faulty workmanship. The obligations of Surety hereunder shall continue so long as any obligation of Contractor remains. Nothing herein shall limit the SCCOE's rights or the Contractor's or Surety's obligations under the Contract, law or equity, including, but not limited to, California Code of Civil Procedure section 337.15.

The Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of the Contract or to the Work to be performed thereunder shall in any way affect its

obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration, or addition to the Contract Documents or to the Work.

**Any claims under this bond may be addressed to the Surety at the following address. This cannot be the Contractor's broker for this bond, but must be an employee of the Surety or the Surety's legal counsel:**

\_\_\_\_\_  
\_\_\_\_\_

**Attention:** \_\_\_\_\_

**Telephone No.:** (\_\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_

**Fax No.:** (\_\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_

**E-mail Address:** \_\_\_\_\_

IN WITNESS WHEREOF, two (2) identical counterparts of this instrument, each of which shall for all purposes be deemed an original thereof, have been duly executed by the Principal and Surety above named, on the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

**Principal**

**Surety**

\_\_\_\_\_  
(Name of Principal)

\_\_\_\_\_  
(Name of Surety)

\_\_\_\_\_  
(Signature of Person with Authority)

\_\_\_\_\_  
(Signature of Person with Authority)

\_\_\_\_\_  
(Print Name)

\_\_\_\_\_  
(Print Name)

\_\_\_\_\_  
(Name of California Agent of Surety)

\_\_\_\_\_  
(Address of California Agent of Surety)

\_\_\_\_\_  
(Telephone Number of California Agent of Surety)

**Contractor must attach a Notarial Acknowledgment for all Surety's signatures and a Power of Attorney and Certificate of Authority for Surety. The California Department of Insurance must authorize the Surety to be an admitted surety insurer.**

END OF DOCUMENT

**DOCUMENT 00 61 15**

**PAYMENT BOND -- Contractor's Labor & Material Bond (100% of Contract Price)**

**(Note: Bidders must use this form, NOT a surety company form.)**

**KNOW ALL PERSONS BY THESE PRESENTS:**

**WHEREAS**, Santa Clara County Office of Education, (or "SCCOE") and \_\_\_\_\_, ("Principal") have entered into a contract for the furnishing of all materials and labor, services and transportation, necessary, convenient, and proper to

Lakeside Emergency Generator (Project Name)  
("Project" or "Contract")

which Contract dated \_\_\_\_\_, 20\_\_\_\_, and all of the Contract Documents attached to or forming a part of the Contract, are hereby referred to and made a part hereof, and

**WHEREAS**, pursuant to law and the Contract, the Principal is required, before entering upon the performance of the work, to file a good and sufficient bond with the body by which the Contract is awarded in an amount equal to 100 percent (100%) of the Contract price, to secure the claims to which reference is made in the Civil Code of California, including section 9100, and the Labor Code of California, including section 1741.

**NOW, THEREFORE**, the Principal and \_\_\_\_\_, ("Surety") are held and firmly bound unto all laborers, material men, and other persons referred to in said statutes in the penal sum of:

\_\_\_\_\_ DOLLARS

(\$ \_\_\_\_\_), lawful money of the United States, being a sum not less than the total amount payable by the terms of Contract, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, or assigns, jointly and severally, by these presents.

The condition of this obligation is that if the Principal or any of his or its subcontractors, of the heirs, executors, administrators, successors, or assigns of any, all, or either of them shall fail to pay for any labor, materials, provisions, provender, or other supplies, used in, upon, for or about the performance of the work contracted to be done, or for any work or labor thereon of any kind, or for amounts due under the Unemployment Insurance Act with respect to such work or labor, that the Surety will pay the same in an amount not exceeding the amount herein above set forth, and also in case suit is brought upon this bond, will pay a reasonable attorney's fee to be awarded and fixed by the Court, and to be taxed as costs and to be included in the judgment therein rendered.

It is hereby expressly stipulated and agreed that this bond shall inure to the benefit of any and all persons, companies, and corporations entitled to file claims under sections 9000 through 9566 of the Civil Code, so as to give a right of action to them or their assigns in any suit brought upon this bond.

Should the condition of this bond be fully performed, then this obligation shall become null and void; otherwise, it shall be and remain in full force and affect.

The Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of the Contract or to the Work to be performed thereunder shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration, or addition to the Contract Documents or to the Work.



IN WITNESS WHEREOF, two (2) identical counterparts of this instrument, each of which shall for all purposes be deemed an original thereof, have been duly executed by the Principal and Surety above named, on the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

**Principal**

**Surety**

\_\_\_\_\_  
(Name of Principal)

\_\_\_\_\_  
(Name of Surety)

\_\_\_\_\_  
(Signature of Person with Authority)

\_\_\_\_\_  
(Signature of Person with Authority)

\_\_\_\_\_  
(Print Name)

\_\_\_\_\_  
(Print Name)

\_\_\_\_\_  
(Name of California Agent of Surety)

\_\_\_\_\_  
(Address of California Agent of Surety)

\_\_\_\_\_  
(Telephone Number of California Agent of Surety)

**Contractor must attach a Notarial Acknowledgment for all Surety's signatures and a Power of Attorney and Certificate of Authority for Surety. The California Department of Insurance must authorize the Surety to be an admitted surety insurer.**

END OF DOCUMENT

FINAL SETTLEMENT AGREEMENT AND RELEASE OF CLAIMS

**[THIS RELEASE SHALL ONLY BE USED AT THE END OF THE PROJECT, AT SCCOE'S DISCRETION, TO FORMALIZE FINAL COMPLETION OF THE PROJECT AND CAN ACCOMPANY THE FINAL APPLICATION FOR PAYMENT.]**

THIS FINAL SETTLEMENT AGREEMENT AND RELEASE OF CLAIMS ("Final Settlement") is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_ by and between:

Santa Clara County Office of Education ("SCCOE") and

\_\_\_\_\_ ("Contractor"), whose  
place of business is \_\_\_\_\_.

SCCOE and Contractor entered into PROJECT/CONTRACT NO.: Lakeside Emergency Generator B06-24-25

("Contract" or "Project") in the County of \_\_\_\_\_, California.

The Work under the Contract has been completed.

**NOW, THEREFORE, it is mutually agreed between SCCOE, and Contractor as follows:**

AGREEMENT

**1. Total Payable.** SCCOE shall pay Contractor as detailed below:

**(Original Contract Sum**      \$ \_\_\_\_\_ **For information only)**

Modified Contract Sum	\$ _____
– Payment to Date	\$ _____ (subtract)
– Liquidated Damages	\$ _____ (subtract)
– [Other _____]	\$ _____ (subtract)
<hr/>	
<b>= Payment Due Contractor</b>	<b>\$ _____ ("Total Payable")</b>

Subject to the provisions hereof, SCCOE shall forthwith pay to Contractor the Total Payable amount, less any amounts represented by any notice to withhold funds on file with SCCOE as of the date of such payment.

2. **No Claims or Disputes.** Contractor acknowledges and hereby agrees that there are no unresolved or outstanding Claims or Disputes (as defined in the Contract Documents) against SCCOE arising from the performance of work under the Contract, except for the claims described in the "Disputed Claims" section herein and the obligations described in the "Continuing Obligations" section herein. It is the intention of the parties in executing this Final Settlement that this Final Settlement shall be effective as a full, final and general release of all claims, demands, actions, causes of action, obligations, costs, expenses, damages, losses and liabilities of Contractor against SCCOE, all its respective agents, employees, inspectors, assignees and transferees except for the claims described in the "Disputed Claims" section herein and the obligations described in the "Continuing Obligations" section herein.
3. **Disputed Claims.** The following claims are disputed (hereinafter, the "Disputed Claims") and are specifically excluded from the operation of this Final Settlement:

<u>Claim No.</u>	<u>Description of Claim</u>	<u>Amount of Claim</u>	<u>Date Claim Submitted</u>
------------------	-----------------------------	------------------------	-----------------------------

**[INSERT INFORMATION, INCLUDING ATTACHMENT IF NECESSARY]**

4. **Release.** Consistent with California Public Contract Code section 7100, Contractor hereby agrees that, in consideration of the payment set forth in the "Total Payable" section herein, Contractor hereby releases and forever discharges SCCOE, all its agents, employees, inspectors, assignees, and transferees from any and all liability, claims, demands, actions, or causes of action of whatever kind or nature arising out of or in any way concerned with the Work under the Contract.
5. **Continuing Obligations.** Guarantees and warranties for the Work, and any other continuing obligation of Contractor, shall remain in full force and effect as specified in the Contract Documents.
6. **Contract Indemnity.** To the furthest extent permitted by California law, Contractor shall defend, indemnify, and hold harmless the SCCOE, its agents, representatives, officers, consultants, employees, trustees, and volunteers (the "indemnified parties") from any and all losses, liabilities, claims, suits, and actions of any kind, nature, and description, including, but not limited to, attorneys' fees and costs, directly or indirectly arising out of, connected with, or resulting from the performance of the Contract unless caused wholly by the sole negligence or willful misconduct of the indemnified parties.
7. **Waiver.** Contractor hereby waives the provisions of California Civil Code section 1542 which provides as follows:

**A GENERAL RELEASE DOES NOT EXTEND TO CLAIMS WHICH THE CREDITOR DOES NOT KNOW OR SUSPECT TO EXIST IN HIS OR HER FAVOR AT THE TIME OF EXECUTING THE RELEASE, WHICH IF KNOWN BY HIM OR HER MUST HAVE MATERIALLY AFFECTED HIS OR HER SETTLEMENT WITH THE DEBTOR.**

8. **Survivability.** The provisions of this Final Settlement are contractual in nature and not mere recitals and shall be considered independent and severable. If any such provision or any part thereof shall be at any time held invalid in whole or in part under any federal, state, county, municipal, or other law, ruling, or regulations, then such provision, or part thereof, shall remain in force and effect to the extent permitted by law, and the remaining provisions of this Final Settlement shall also remain in full force and effect, and shall be enforceable.
9. **Reservation of Rights.** All rights of SCCOE shall survive completion of the Work or termination of Contract, and execution of this Release.

**\* \* \* CAUTION: THIS IS A RELEASE - READ BEFORE EXECUTING \* \* \***

Accepted and agreed on the date indicated below:

Dated: \_\_\_\_\_, 20\_\_

Dated: \_\_\_\_\_, 20\_\_

Santa Clara County Office of Education  
(SCCOE)

\_\_\_\_\_, Inc.

By: \_\_\_\_\_

By: \_\_\_\_\_

Print Name: \_\_\_\_\_

Print Name: \_\_\_\_\_

Print Title: \_\_\_\_\_

Print Title: \_\_\_\_\_

END OF DOCUMENT

**DOCUMENT 00 65 36**

**WARRANTY AND GUARANTEE FORM**

1. \_\_\_\_\_ ("Contractor")  
hereby agrees that the \_\_\_\_\_ ("Work" of Contractor)  
which Contractor has installed for the Santa Clara County Office of Education ("SCCOE")  
for the following project: \_\_\_\_\_ ("Project" or "Contract")  
was performed in accordance with the requirements of the Contract Documents and that the Work as  
installed fulfills the requirements of the Contract Documents.
2. Contractor agrees to repair or replace all of the Work that may prove to be defective in workmanship or  
material and any other adjacent Work that may be displaced in connection with such replacement within a  
period of \_\_\_\_\_ **YEAR(S)** from the date of Completion as defined in the Contract, ordinary wear  
and tear and unusual abuse or neglect excepted. The date of completion is \_\_\_\_\_, 20\_\_\_\_.
3. In the event Contractor fails to comply with the above-mentioned conditions within a reasonable period of  
time, as determined by SCCOE, but not later than **SEVEN (7)** calendar days after being notified in writing by  
SCCOE, Contractor authorizes SCCOE to proceed to repair or replace the defective Work at the expense of  
Contractor. Contractor shall pay the costs and charges therefor upon demand.
4. **Representatives to be contacted for service subject to the terms of Contract:**

NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

PHONE NO.: \_\_\_\_\_

EMAIL: \_\_\_\_\_

Date: \_\_\_\_\_

Proper Name of Contractor: \_\_\_\_\_

Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

END OF DOCUMENT

**DOCUMENT 00 70 00**

**TABLE OF CONTENTS**

**GENERAL CONDITIONS**

<b>1.</b>	<b>CONTRACT TERMS AND DEFINITIONS .....</b>	<b>1</b>
<b>1.1.</b>	<b>Definitions.....</b>	<b>1</b>
<b>1.2.</b>	<b>Laws Concerning the Contract .....</b>	<b>5</b>
<b>1.3.</b>	<b>No Oral Agreements .....</b>	<b>5</b>
<b>1.4.</b>	<b>No Assignment .....</b>	<b>5</b>
<b>1.5.</b>	<b>Notice And Service Thereof .....</b>	<b>5</b>
<b>1.6.</b>	<b>No Waiver .....</b>	<b>5</b>
<b>1.7.</b>	<b>Substitutions for Specified Items .....</b>	<b>6</b>
<b>1.8.</b>	<b>Materials and Work .....</b>	<b>6</b>
<b>2.</b>	<b>SCCOE.....</b>	<b>Error! Bookmark not defined.</b>
<b>3.</b>	<b>ARCHITECT .....</b>	<b>7</b>
<b>4.</b>	<b>CONSTRUCTION MANAGER .....</b>	<b>8</b>
<b>5.</b>	<b>INSPECTOR, INSPECTIONS AND TESTS .....</b>	<b>8</b>
<b>5.1.</b>	<b>Project Inspector .....</b>	<b>8</b>
<b>5.2.</b>	<b>Tests and Inspections.....</b>	<b>8</b>
<b>5.3.</b>	<b>Costs for After Hours and/or Off Site Inspections .....</b>	<b>9</b>
<b>6.</b>	<b>CONTRACTOR .....</b>	<b>9</b>
<b>6.1.</b>	<b>Status of Contractor .....</b>	<b>9</b>
<b>6.2.</b>	<b>Contractor’s Supervision .....</b>	<b>10</b>
<b>6.3.</b>	<b>Duty to Provide Fit Workers .....</b>	<b>11</b>
<b>6.4.</b>	<b>Personnel .....</b>	<b>11</b>
<b>6.5.</b>	<b>Purchase of Materials and Equipment .....</b>	<b>12</b>
<b>6.6.</b>	<b>Documents on Work .....</b>	<b>12</b>
<b>6.7.</b>	<b>Preservation of Records.....</b>	<b>13</b>

6.8.	Integration of Work .....	13
6.9.	Obtaining of Permits and Licenses .....	14
6.10.	Work to Comply with Applicable Laws and Regulations .....	14
6.11.	Safety/Protection of Persons and Property .....	15
6.12.	Working Evenings and Weekends .....	17
6.13.	Cleaning Up .....	17
7.	SUBCONTRACTORS .....	17
8.	OTHER CONTRACTS/CONTRACTORS .....	18
9.	DRAWINGS AND SPECIFICATIONS .....	19
9.8.	Ownership of Drawings .....	20
10.	CONTRACTOR'S SUBMITTALS AND SCHEDULES .....	20
10.1.	Schedules, Safety Plan and Complete Subcontractor List .....	20
10.2.	Monthly Progress Schedule(s) .....	22
10.3.	Material Safety Data Sheets (MSDS) .....	23
10.4.	Logistic Plan.....	23
11.	SITE ACCESS, CONDITIONS AND REQUIREMENTS .....	23
11.1.	Site Investigation .....	23
11.2.	Soils Investigation Report.....	23
11.3.	Access to Work.....	23
11.4.	Layout and Field Engineering .....	24
11.5.	Utilities .....	24
11.6.	Sanitary Facilities .....	24
11.7.	Surveys .....	24
11.8.	Regional Notification Center .....	24
11.9.	Existing Utility Lines .....	24
11.10.	Notification.....	25
11.11.	Hazardous Materials .....	25

11.12.	No Signs .....	25
12.	TRENCHES.....	25
12.1.	Trenches Greater Than Five Feet .....	25
12.2.	Excavation Safety .....	25
12.3.	No Tort Liability of SCCOE.....	26
12.4.	No Excavation without Permits .....	26
12.5.	Discovery of Hazardous Waste, Unusual Conditions and/or Unforeseen Conditions .....	26
13.	INSURANCE AND BONDS .....	26
13.1.	Insurance .....	26
13.2.	Contract Security – Bonds.....	29
14.	WARRANTY/GUARANTEE/INDEMNITY .....	30
14.1.	Warranty/Guarantee .....	30
14.2.	Indemnity .....	30
15.	TIME .....	31
15.1.	Notice to Proceed .....	31
15.2.	Hours of Work .....	31
15.3.	Progress and Completion.....	31
15.4.	Schedule .....	32
15.5.	Expeditious Completion.....	32
16.	EXTENSIONS OF TIME – LIQUIDATED DAMAGES .....	32
16.1.	Contractor’s Notice of Delay .....	32
16.2.	Excusable and Compensable Delay(s) .....	33
16.3.	Excusable Delay(s) .....	33
16.4.	Unexcused Delay(s) – Liquidated Damages .....	34
17.	CHANGES IN THE WORK .....	35
17.1.	No Changes Without Authorization .....	35
17.2.	Architect Authority .....	35



17.3.	Change Orders.....	36
17.4.	Construction Change Directives / Unilateral Change Orders .....	36
17.5.	Force Account Directives .....	36
17.6.	Price Request .....	37
17.7.	Proposed Change Order.....	37
17.8.	Format for Proposed Change.....	38
17.9.	Change Order Certification .....	42
17.10.	Determination of Change Order Cost .....	42
17.11.	Deductive Change Orders .....	43
17.12.	Discounts, Rebates and Refunds .....	43
17.13.	Accounting Records.....	43
17.14.	Notice Required .....	43
17.15.	Applicability to Subcontractors .....	43
17.16.	Alteration to Change Order Language .....	43
17.17.	Failure of Contractor to Execute Change Order .....	44
18.	REQUEST FOR INFORMATION .....	44
19.	PAYMENTS .....	44
19.1.	Contract Price.....	44
19.2.	Applications for Progress Payments.....	44
19.3.	Progress Payments.....	47
19.4.	Decisions to Withhold Payment .....	48
19.5.	Subcontractor Payments .....	50
20.	COMPLETION OF THE WORK .....	50
20.1.	Completion.....	50
20.2.	Closeout Procedures .....	51
20.3.	Final Inspection .....	52
20.4.	Costs of Multiple Inspections .....	53

20.5.	Partial Occupancy or Use Prior to Completion .....	53
21.	FINAL PAYMENT AND RETENTION .....	53
21.1.	Final Payment .....	53
21.2.	Prerequisites for Final Payment .....	53
21.3.	Retention.....	54
21.4.	Substitution of Securities.....	54
22.	UNCOVERING OF WORK .....	55
23.	NONCONFORMING WORK AND CORRECTION OF WORK .....	55
23.1.	Nonconforming Work .....	55
23.2.	Correction of Work .....	55
23.3.	SCCOE's Right to Perform Work .....	55
24.	TERMINATION AND SUSPENSION .....	56
24.1.	SCCOE's Right to Terminate Contractor for Cause.....	56
24.2.	Emergency Termination of Public Contracts Act of 1949 .....	58
24.3.	Termination of Contractor for Convenience .....	58
24.4.	Suspension of Work .....	59
24.5.	Scope Reduction .....	59
25.	DISPUTES AND CLAIMS .....	59
25.1.	Performance during Dispute and Claim Resolution Process. ....	59
25.2.	Waiver. ....	59
25.3.	Intention.....	59
25.4.	Exclusive Remedy.....	59
25.5.	Other Provisions. ....	60
25.6.	Subcontractors.....	60
25.7.	Dispute and Claim Resolution Process .....	60
25.8.	Documentation of Resolution. ....	64
25.9.	Dispute and Claim Resolution Process – Non-Applicability.....	64

<b>26.</b>	<b>LABOR, WAGE &amp; HOUR, APPRENTICE AND RELATED PROVISIONS.....</b>	<b>65</b>
26.1.	Contractor & Subcontractor Registration .....	65
26.3.	Hours of Work .....	66
26.5.	Apprentices .....	68
26.6.	Non-Discrimination .....	69
26.7.	Labor First Aid .....	70
<b>27.</b>	<b>MISCELLANEOUS.....</b>	<b>70</b>
27.1.	Assignment of Antitrust Actions.....	70
27.2.	Excise Taxes.....	71
27.3.	Taxes.....	71
27.4.	Shipments .....	71
27.5.	Compliance with Government Reporting Requirements .....	71

**GENERAL CONDITIONS**

**1. CONTRACT TERMS AND DEFINITIONS**

**1.1. Definitions**

**Wherever used in the Contract Documents, the following terms shall have the meanings indicated, which shall be applicable to both the singular and plural thereof:**

**1.1.1. Adverse Weather:** Weather that satisfies all of the following conditions: (1) unusually severe precipitation, sleet, snow, hail, heat, or cold conditions in excess of the norm for the location and time of year it occurred, (2) unanticipated, and (3) occurring at the Project Site.

**1.1.2. Allowance(s):** Amount(s) stated in the Agreement for specific scopes of work for which Contractor may bill its time, materials, and other items in the identical structure as a Change Order.

**1.1.3. Approval, Approved, and/or Accepted:** Refer to written authorization, unless stated otherwise.

**1.1.4. Architect:** The individual, partnership, corporation, joint venture, or any combination thereof, named as Architect that has the rights and authority assigned to the Architect in the Contract Documents. The term Architect means the SCCOE's Architect on this Project or the Architect's authorized representative.

**1.1.5. As-Built Drawings:** A reproducible full-size sets of drawings to be prepared on a monthly basis, and upon Project Completion, pursuant to the Contract Documents, that reflect changes made during the performance of the Work, recording differences between the original design of the Work and the Work as constructed since the preceding monthly submittal.

**1.1.6. Bidder:** A contractor who intends to provide a bid to the SCCOE to perform the Work of the Contract.

**1.1.7. Change Order:** A written order to the Contractor authorizing an addition to, deletion from, or revision in the Work, and/or authorizing an adjustment in the Contract Price or Contract Time. If a Change Order is required to be approved by DSA, the SCCOE may call it a Construction Change Document.

**1.1.8. Completion:** When the entire Work shall have been completed to the satisfaction of SCCOE, including all punch list items. Final DSA approval of the Project is not required for Completion.

**1.1.9. Construction Change Directive:** A written order prepared and issued by the SCCOE, the Construction Manager, and/or the Architect and signed by the SCCOE and the Architect, directing a change in the Work. **A Construction Change Directive is NOT a Construction Change Document (which is defined above as a Change Order that DSA must approve).**

**1.1.10. Construction Manager:** The individual, partnership, corporation, joint venture, or any combination thereof, or its authorized representative, named as such by the SCCOE. If no Construction Manager is used on the Project, then all references in the Contract Documents to Construction Manager shall be read to refer to SCCOE.

**1.1.11. Construction Schedule:** The progress schedule of construction of the Project as provided by Contractor and approved by SCCOE.

**1.1.12. Contract, Contract Documents:** The Contract consists exclusively of the documents evidencing the agreement of the SCCOE and Contractor, identified as the Contract Documents. The Contract Documents consist of the following documents:

- 1.1.12.1.** Invitation to Bid
- 1.1.12.2.** Instructions to Bidders
- 1.1.12.3.** Bid Form
- 1.1.12.4.** Bid Bond (Security)
- 1.1.12.5.** Designated Subcontractors List
- 1.1.12.6.** Site-Visit Certification
- 1.1.12.7.** Noncollusion Affidavit
- 1.1.12.8.** Iran Contracting Act Certification
- 1.1.12.9.** Worker's Compensation Certification
- 1.1.12.10.** Prevailing Wage and Related Labor Requirements Certification
- 1.1.12.11.** Disabled Veteran's Business Enterprise Participation Certification
- 1.1.12.12.** Drug-Free Workplace Certification
- 1.1.12.13.** Tobacco-Free Environment Certification
- 1.1.12.14.** Hazardous Materials Certification
- 1.1.12.15.** Lead-Based Materials Certification
- 1.1.12.16.** Imported Materials Certification
- 1.1.12.17.** Criminal Background Investigation/Fingerprinting Certification
- 1.1.12.18.** Roofing Contract Financial Interest Certification
- 1.1.12.19.** Notice of Award
- 1.1.12.20.** Agreement
- 1.1.12.21.** Escrow of Bid Documentation (if applicable)
- 1.1.12.22.** Escrow Agreement for Security Deposits in Lieu of Retention
- 1.1.12.23.** Storm Water Pollution Prevention Plan (if applicable)
- 1.1.12.24.** Hazardous Materials Procedures and Requirements
- 1.1.12.25.** Notice to Proceed
- 1.1.12.26.** Performance Bond

- 1.1.12.27.** Payment Bond (Contractor's Labor and Material Bond)
- 1.1.12.28.** SCCOE Contract Forms (if applicable)
- 1.1.12.29.** SCCOE Closeout Forms (if applicable)
- 1.1.12.30.** Final Settlement Agreement and Release of Claims
- 1.1.12.31.** Warranty and Guarantee Form
- 1.1.12.32.** General Conditions
- 1.1.12.33.** Special Conditions
- 1.1.12.34.** Project Plans, Specifications, Technical Specifications, and Drawings
- 1.1.12.35.** Addenda to any of the above documents
- 1.1.12.36.** Schedules if approved in writing by the SCCOE
- 1.1.12.37.** Change Orders or written modifications to the above documents if approved in writing by the SCCOE
- 1.1.13. Contract Price:** The total monies payable to the Contractor under the terms and conditions of the Contract Documents.
- 1.1.14. Contract Time:** The time period stated in the Agreement for the Completion of the Work.
- 1.1.15. Contractor:** The person or persons identified in the Agreement as contracting to perform the Work, or the legal representative of such person(s).
- 1.1.16. Daily Job Report(s):** Daily Project reports prepared by the Contractor's employee(s) who are present on Site, which shall include the information required herein.
- 1.1.17. Day(s):** Unless otherwise designated, day(s) means calendar day(s).
- 1.1.18. SCCOE:** The public agency or the school SCCOE for which the Work is performed.
- 1.1.19. Drawings:** (or "Plans") The graphic and pictorial portions of the Contract Documents showing the design, location, scope and dimensions of the Work, generally including plans, elevations, sections, details, schedules, sequence of operation, and diagrams.
- 1.1.20. DSA:** Division of the State Architect.
- 1.1.21. Force Account Directive:** A process that may be used when the SCCOE and the Contractor cannot agree on a price for a specific scope of work or before Contractor prepares a price for the scope of work, Contractor performs on a time and materials basis.
- 1.1.22. Premises:** The real property owned by the SCCOE on which the Project Site is located.
- 1.1.23. Product(s):** New material, machinery, components, equipment, fixtures and systems forming the Work, including existing materials or components required and approved by the SCCOE for reuse.

**1.1.24. Product Data:** Illustrations, standard schedules, performance charts, instructions, brochures, diagrams, and other information furnished by Contractor to illustrate a material, product, or system for a scope of the Work.

**1.1.25. Project:** The planned undertaking as provided for in the Contract Documents.

**1.1.26. Project Inspector:** (or "Inspector") Individual(s) retained by the SCCOE in accordance with title 24 of the California Code of Regulations to monitor and inspect the Project.

**1.1.27. Program Manager:** The individual, partnership, corporation, joint venture, or any combination thereof, or its authorized representative, named as such by the SCCOE. If no Program Manager is designated for the Project, then all references to Project Manager shall refer to SCCOE.

**1.1.28. Provide:** Shall include "provide complete in place," that is, "furnish and install," and "provide complete and functioning as intended in place" unless specifically stated otherwise.

**1.1.29. Request for Information:** (or "RFI") A written request prepared by the Contractor requesting that the Architect provide additional information necessary to clarify or amplify an item in the Contract Documents that the Contractor believes is not clearly shown or called for in the Drawings or Specifications or other portions of the Contract Documents, or to address issues that have arisen under field conditions.

**1.1.30. Request for Substitution:** A request by Contractor to substitute an equal or superior material, product, thing, or service for a specific material, product, thing, or service that has been designated in the Contract Documents by a specific brand or trade name.

**1.1.31. Safety Orders:** Written and/or verbal orders for construction issued by the California Division of Industrial Safety ("CalOSHA") or by the United States Occupational Safety and Health Administration ("OSHA").

**1.1.32. Safety Plan:** Contractor's safety plan specifically adapted for the Project. Contractor's Safety Plan shall comply with all provisions regarding Project safety, including all applicable provisions in these General Conditions.

**1.1.33. Samples:** Physical examples that illustrate materials, products, equipment, finishes, colors, or workmanship and that, when approved in accordance with the Contract Documents, establish standards by which portions of the Work will be judged.

**1.1.34. Shop Drawings:** All drawings, prints, diagrams, illustrations, brochures, schedules, and other data that are prepared by the Contractor, a subcontractor, manufacturer, supplier, or distributor, that illustrate how specific portions of the Work shall be fabricated or installed.

**1.1.35. Site:** The Project site as shown on the Drawings.

**1.1.36. Specifications:** That portion of the Contract Documents, Division 1 through Division 17, and all technical sections, and addenda to all of these, if any, consisting of written descriptions and requirements of a technical nature of materials, equipment, construction methods and systems, standards, and workmanship.

**1.1.37. Subcontractor:** A contractor and/or supplier who is under contract with the Contractor or with any other subcontractor, regardless of tier, to perform a portion of the Work.

**1.1.38. Submittal Schedule:** The schedule of submittals as provided by Contractor and approved by SCCOE.

**1.1.39. Surety:** The person, firm, or corporation that executes as surety the Contractor's Performance Bond and Payment Bond and must be a California admitted surety insurer as defined in the Code of Civil Procedure section 995.120.

**1.1.40. SWPPP:** The SCCOE's Storm Water Pollution Prevention Plan.

**1.1.41. Work:** All labor, materials, equipment, components, appliances, supervision, coordination, and services required by, or reasonably inferred from, the Contract Documents, that are necessary for the construction and Completion of the Project.

## **1.2. Laws Concerning the Contract**

Contract is subject to all provisions of the Constitution and laws of California and the United States, governing, controlling, or affecting SCCOE, or the property, funds, operations, or powers of SCCOE, and such provisions are by this reference made a part hereof. Any provision required by law to be included in this Contract shall be deemed to be inserted.

## **1.3. No Oral Agreements**

No oral agreement or conversation with any officer, agent, or employee of SCCOE, either before or after execution of Contract, shall affect or modify any of the terms or obligations contained in the Contract Documents.

## **1.4. No Assignment**

Contractor shall not assign the Contract or any part thereof including, without limitation, any services or money to become due without the prior written consent of the SCCOE. Assignment without SCCOE's prior written consent shall be null and void. Any assignment of money due or to be come due under the Contract shall be subject to a prior lien for services rendered or material supplied for Work performed in favor of all persons, firms, or corporations rendering services or supplying material to the extent that claims are filed pursuant to the Civil Code, Code of Civil Procedure, Government Code, Labor Code, and/or Public Contract Code, and shall also be subject to deductions for Liquidated Damages or withholding of payments as determined by SCCOE in accordance with the Contract. Contractor shall not assign or transfer in any manner to a Subcontractor or supplier the right to prosecute or maintain an action against the SCCOE.

## **1.5. Notice And Service Thereof**

**1.5.1.** Any notice required by the Contract shall be in writing, dated and signed by the party giving notice or by a duly authorized representative of that party. Notice shall be served and considered effective if given in one of the following manners:

**1.5.1.1.** By personal delivery, considered delivered on the day of delivery.

**1.5.1.2.** By overnight delivery service, considered delivered one (1) day after date deposited, as indicated by the delivery service.

**1.5.1.3.** By depositing same in United States mail, enclosed in a sealed envelope; considered delivered three (3) days after date deposited, as indicated by the postmarked date.

**1.5.1.4.** By registered or certified mail with postage prepaid, return receipt requested; considered delivered on the day the notice is signed for.

## **1.6. No Waiver**



The failure of SCCOE in any one or more instances to insist upon strict performance of any term of the Contract or to exercise any SCCOE option shall not be construed as a waiver or relinquishment of the right to assert or rely upon any such term or option on a future occasion. No action or failure to act by the SCCOE, Architect, or Construction Manager shall constitute a waiver of any right or duty afforded the SCCOE under the Contract, nor shall any action or failure to act constitute an approval of or acquiescence in any breach hereunder, except as may be specifically agreed in writing.

**1.7. Substitutions for Specified Items**

See Special Conditions.

**1.8. Materials and Work**

**1.8.1.** Except as otherwise stated in the Contract, Contractor shall provide and pay for all materials, labor, tools, equipment, transportation, supervision, temporary constructions of every nature, and all other services, management, and facilities of every nature whatsoever necessary to execute and complete the Contract within the Contract Time.

**1.8.2.** Unless otherwise specified, all materials shall be new and the best of their respective kinds and grades as noted or specified, and workmanship shall be of good quality.

**1.8.3.** Materials shall be furnished in sufficient quantities and at such times as to ensure uninterrupted progress of Work and shall be stored properly and protected as required.

**1.8.4.** For all materials and equipment specified or indicated in the Drawings, the Contractor shall provide all labor, materials, equipment, and services necessary for complete assemblies and complete working systems, functioning as intended. Incidental items not indicated on Drawings, nor mentioned in the Specifications, that can legitimately and reasonably be inferred to belong to the Work described or be necessary in good practice to provide a complete assembly or system, shall be furnished as though itemized here in every detail. In all instances, material and equipment shall be installed in strict accordance with each manufacturer's most recent published recommendations and specifications.

**1.8.5.** Contractor shall, after award of Contract by SCCOE and after relevant submittals have been approved, place orders for materials and/or equipment as specified so that delivery of same may be made without delays to the Work. Contractor shall, upon demand from SCCOE, present documentary evidence showing that orders have been placed.

**1.8.6.** SCCOE reserves the right but has no obligation, for any neglect in complying with the above instructions, to place orders for such materials and/or equipment as it may deem advisable in order that the Work may be completed at the date specified in the Agreement, and all expenses incidental to the procuring of said materials and/or equipment shall be paid for by Contractor or withheld from payment(s) to Contractor.

**1.8.7.** Contractor warrants good title to all material, supplies, and equipment installed or incorporated in Work and agrees upon Completion of all Work to deliver the Site to SCCOE, together with all improvements and appurtenances constructed or placed thereon by it, and free from any claims, liens, or charges. Contractor further agrees that neither it nor any person, firm, or corporation furnishing any materials or labor for any Work shall have any right to lien any portion of the Premises or any improvement or appurtenance thereon, except that Contractor may install metering devices or other equipment of utility companies or of political subdivision, title to which is commonly retained by utility company or political subdivision. In the event of installation of any such metering device or equipment, Contractor shall advise SCCOE as to owner thereof.

**1.8.8.** Nothing contained in this Article, however, shall defeat or impair the rights of persons furnishing materials or labor under any bond given by Contractor for their protection or any rights under law permitting such protection or any rights under law permitting such persons to look to funds due Contractor in hands of SCCOE (e.g., stop payment notices). This provision shall be inserted in all subcontracts and material contracts and notice of its provisions shall be given to all persons furnishing material for work when no formal contract is entered into for such material.

**1.8.9.** Title to new materials and/or equipment for the Work and attendant liability for its protection and safety shall remain with Contractor until incorporated in the Work of this Contract and accepted by SCCOE. No part of any materials and/or equipment shall be removed from its place of storage except for immediate installation in the Work. Contractor shall keep an accurate inventory of all materials and/or equipment in a manner satisfactory to SCCOE or its authorized representative and shall, at the SCCOE's request, forward it to the SCCOE.

**1.8.10.** Contractor certifies that it shall comply with the recycled product requirements of Public Contract Code section 22150, et seq., including, without limitation, section 22154 which states, "All businesses shall certify in writing to the contracting officer, or his or her representative, the minimum, if not exact, percentage of postconsumer material in the products, materials, goods, or supplies being offered or sold to any local public entity."

## **2. SCCOE**

**2.1.1.** The SCCOE or its designees will act for the SCCOE in all matters pertaining to the Contract.

**2.1.2.** The SCCOE may, at any time,

**2.1.2.1.** Direct the Contractor to communicate with or provide notice to the Construction Manager or the Architect on matters for which the Contract Documents indicate the Contractor will communicate with or provide notice to the SCCOE; and/or

**2.1.2.2.** Direct the Construction Manager or the Architect to communicate with or direct the Contractor on matters for which the Contract Documents indicate the SCCOE will communicate with or direct the Contractor.

**2.1.3. SCCOE's Rights if Contractor Fails to Perform.** If the SCCOE at any time believes that the Contractor is behind schedule, is failing to construct the Project pursuant to the Contract Documents or is otherwise failing to perform any provisions of this Contract, the SCCOE, after **FORTY-EIGHT (48)** hours written notice to the Contractor, may take any action necessary or beneficial to the SCCOE to complete the Project, take over the Work of the Contract, terminate or suspend the Contract as indicated herein, or any combination or portion of those actions. The Contractor and the Surety shall be liable to the SCCOE for any cost incurred by the SCCOE in those actions and the SCCOE has the right to deduct the cost thereof from any payment then or thereafter due the Contractor.

## **3. ARCHITECT**

**3.1.** Architect shall have the authority to act on behalf of SCCOE to the extent expressly provided in the Contract Documents and to the extent determined by SCCOE to, among other things, observe the progress and quality of the Work on behalf of the SCCOE. Architect shall have authority to reject materials, workmanship, and/or the Work whenever rejection may be necessary, in Architect's reasonable opinion, to insure the proper execution of the Contract.

**3.2.** Architect shall, with the SCCOE and on behalf of the SCCOE, determine the amount, quality, acceptability, and fitness of all parts of the Work, and interpret the Specifications, Drawings, and shall, with the SCCOE, interpret all other Contract Documents.

- 3.3. Architect shall have all authority and responsibility established by law, including title 24 of the California Code of Regulations.
- 3.4. Contractor shall provide SCCOE and the Construction Manager with a copy of all written communication between Contractor and Architect at the same time as that communication is made to Architect, including, without limitation, all RFIs, correspondence, submittals, claims, and proposed change orders.

#### **4. CONSTRUCTION MANAGER**

- 4.1. If a Construction Manager is used on this Project, the Construction Manager will provide administration of the Contract on the SCCOE's behalf. After execution of the Contract and Notice to Proceed, all correspondence and/or instructions from Contractor and/or SCCOE shall be forwarded through the Construction Manager. The Construction Manager will not be responsible for and will not have control or charge of construction means, methods, techniques, sequences, or procedures or for safety precautions in connection with the Work, which shall all remain the Contractor's responsibility.
- 4.2. Construction Manager, however, will have authority to reject materials and/or workmanship not conforming to the Contract Documents, as determined by the SCCOE, the Architect, and/or the Project Inspector. Construction Manager shall also have the authority to require special inspection or testing of any portion of the Work, whether it has been fabricated, installed, or fully completed. Any decision made by Construction Manager, in good faith, shall not give rise to any duty or responsibility of the Construction Manager to the Contractor, any Subcontractor, their agents, employees, or other persons performing any of the Work. Construction Manager shall have free access to all parts of Work at any time.
- 4.3. If the SCCOE does not use a Construction Manager on this Project, all references to Construction Manager or CM shall be read as SCCOE.

#### **5. INSPECTOR, INSPECTIONS AND TESTS**

##### **5.1. Project Inspector**

5.1.1. One or more Project Inspector(s), including special Project Inspector(s), as required, will be assigned to the Work by SCCOE, in accordance with requirements of title 24, part 1, of the California Code of Regulations, to enforce the building code and monitor compliance with Plans and Specifications for the Project previously approved by the DSA. Duties of Project Inspector(s) are specifically defined in section 4-342 of said part 1 of title 24.

5.1.2. No Work shall be carried on except with the knowledge and under the inspection of the Project Inspector(s). The Project Inspector(s) shall have free access to all parts of Work at any time. Contractor shall furnish Project Inspector(s) reasonable opportunities for obtaining such information as may be necessary to keep Project Inspector(s) fully informed respecting progress and manner of work and character of materials. Inspection of Work shall not relieve Contractor from the obligation to fulfill the Contract. Project Inspector(s) and the DSA are authorized to stop work whenever the Contractor and/or its Subcontractor(s) are not complying with the Contract Documents. Any work stoppage by the Project Inspector(s) and/or DSA shall be without liability to the SCCOE. Contractor shall instruct its Subcontractors and employees accordingly.

5.1.3. If Contractor and/or any Subcontractor requests that the Project Inspector(s) perform any inspection off-site, this shall only be done if it is allowable pursuant to applicable regulations and DSA, if the Project Inspector(s) agree to do so, and at the expense of the Contractor.

##### **5.2. Tests and Inspections**

**5.2.1.** Tests and Inspections shall comply with title 24, part 1, California Code of Regulations, group 1, article 5, section 4-335, and with the provisions of the Specifications.

**5.2.2.** The SCCOE will select an independent testing laboratory to conduct the tests. Selection of the materials required to be tested shall be by the laboratory or the SCCOE's representative and not by the Contractor. The Contractor shall notify the SCCOE's representative a sufficient time in advance of its readiness for required observation or inspection.

**5.2.3.** The Contractor shall notify the SCCOE's representative a sufficient time in advance of the manufacture of material to be supplied under the Contract Documents, that must by terms of the Contract Documents be tested, in order that the SCCOE may arrange for the testing of same at the source of supply. This notice shall be, at a minimum, seventy-two (72) hours prior to the manufacture of the material that must be tested.

**5.2.4.** Any material shipped by the Contractor from the source of supply prior to having satisfactorily passed required testing and inspection or prior to the receipt of notice from the representative that testing, and inspection will not be required, shall not be incorporated into and/or onto the Project.

**5.2.5.** The SCCOE will select and pay testing laboratory costs for all tests and inspections. Costs of tests of any materials found to be not in compliance with the Contract Documents shall be paid for by the SCCOE and reimbursed by the Contractor or deducted from the Contract Price.

**5.3. Costs for After Hours and/or Off-Site Inspections**

**5.3.1.** If the Contractor performs Work outside the Inspector's regular working hours or requests the Inspector to perform inspections off Site, costs of any inspections required outside regular working hours or off Site shall be borne by the Contractor and may be invoiced to the Contractor by the SCCOE or the SCCOE may deduct those expenses from the next Progress Payment.

**6. CONTRACTOR**

Contractor shall construct the Work for the Contract price including any adjustment(s) to the Contract Price pursuant to provisions herein regarding changes to the Contract Price. Except as otherwise noted, Contractor shall provide and pay for all labor, materials, equipment, permits, fees, licenses, facilities, transportation, taxes, and services necessary for the proper execution and Completion of the Work, except as indicated herein.

**6.1. Status of Contractor**

**6.1.1.** Contractor is and shall at all times be deemed to be an independent contractor and shall be wholly responsible for the manner in which it and its Subcontractors perform the services required of it by the Contract Documents. Nothing herein contained shall be construed as creating the relationship of employer and employee, or principal and agent, between the SCCOE, or any of the SCCOE's employees or agents, and Contractor or any of Contractor's Subcontractors, agents or employees. Contractor assumes exclusively the responsibility for the acts of its employees as they relate to the services to be provided during the course and scope of their employment. Contractor, its Subcontractors, agents, and its employees shall not be entitled to any rights or privileges of SCCOE employees. SCCOE shall be permitted to monitor the Contractor's activities to determine compliance with the terms of the Contract.

**6.1.2.** As required by law, Contractor and all Subcontractors shall be properly licensed and regulated by the Contractor's State License Board, located at 9821 Business Park Drive, , Sacramento, California 95827, with a mailing address of Post Office Box 26000, Sacramento, California, and with a website at <http://www.cslb.ca.gov>.

## **6.2. Contractor's Supervision**

**6.2.1.** During progress of the Work, Contractor shall keep on the Premises, and at all other locations where any Work related to the Contract is being performed, a competent project manager and construction superintendent who are employees of the Contractor, to whom the SCCOE does not object and at least one of whom shall be fluent in English, written and verbal.

**6.2.2.** The project manager and construction superintendent shall both speak fluently the predominant language of the Contractor's employees.

**6.2.3.** Before commencing the Work, Contractor shall give written notice to SCCOE of the name of its project manager and construction superintendent. Neither the Contractor's project manager nor construction superintendent shall be changed except with prior written notice to SCCOE, unless the Contractor's project manager and/or construction superintendent proves to be unsatisfactory to Contractor, SCCOE, any of the SCCOE's employees, agents, the Construction Manager, or the Architect, in which case, Contractor shall notify SCCOE in writing. SCCOE retains the right to reasonably refuse Contractor's replacement personnel. The Contractor's project manager and construction superintendent shall each represent Contractor, and all directions given to Contractor's project manager and/or construction superintendent shall be as binding as if given to Contractor.

**6.2.4.** Contractor shall give efficient supervision to Work, using its best skill and attention. Contractor shall carefully study and compare all Contract Documents, Drawings, Specifications, and other instructions and shall at once report to SCCOE, Construction Manager, and Architect any error, inconsistency, or omission that Contractor or its employees and Subcontractors may discover, in writing, with a copy to SCCOE's Project Inspector(s). The Contractor shall have responsibility for discovery of errors, inconsistencies, or omissions.

**6.2.5.** The Contractor's project manager shall devote sufficient time to the Project on site, and in the Contractor's home office to pre-plan activities to meet the Project schedule and fulfill all Contract obligations. This includes making timely submittals, issuing and disseminating necessary RFI's, promptly processing and distributing bulletins, change orders and payments, keeping required logs current etc. If any of these activities fall behind contract requirements or dates necessary to complete the Project on time, the Contractor must provide a full-time project manager on the Project Site dedicated solely to the Project, until the deficiencies are corrected.

**6.2.6.** The Contractor shall verify all indicated dimensions before ordering materials or equipment, or before performing Work. The Contractor shall take field measurements, verify field conditions, and shall carefully compare such field measurements and conditions and other information known to the Contractor with the Project Documents before commencing work. Errors, inconsistencies or omissions discovered shall be immediately reported to the SCCOE. Upon commencement of any item of Work, the Contractor shall be responsible for dimensions related to the Work and shall make any corrections necessary to make Work properly fit at no additional cost to SCCOE. This responsibility for verification of dimensions is a non-delegable duty and may not be delegated to subcontractors or agents.

**6.2.7.** Omissions from the Drawings or Specifications, or the misdescription of details of Work which are manifestly necessary to carry out the intent of the Drawings and Specifications, or which are customarily performed, shall not relieve the Contractor from performing such omitted or misdescribed Work, but they shall be performed as if fully and correctly set forth and described in the Drawings and Specifications.

**6.2.8.** The Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction. The Contractor shall be responsible to see that the finished Work complies accurately with the Contract Documents.

### **6.3. Duty to Provide Fit Workers**

**6.3.1.** Contractor and Subcontractor(s) shall at all times enforce strict discipline and good order among their employees and shall not employ or work any unfit person or anyone not skilled in work assigned to that person. It shall be the responsibility of Contractor to ensure compliance with this requirement. SCCOE may require Contractor to permanently remove unfit persons from Project Site.

**6.3.2.** Any person in the employ of Contractor or Subcontractor(s) whom SCCOE may deem incompetent or unfit shall be excluded from working on the Project and shall not again be employed on the Project except with the prior written consent of SCCOE.

**6.3.3.** The Contractor shall furnish labor that can work in harmony with all other elements of labor employed or to be employed in the Work.

**6.3.4.** If Contractor intends to make any change in the name or legal nature of the Contractor's entity, Contractor must first notify the SCCOE. The SCCOE shall determine if Contractor's intended change is permissible while performing the Contract.

**6.3.5. Compliance with Immigration Reform and Control Act of 1986.** As required by law, Contractor and all Subcontractors shall employ individuals for the Work in conformity with the Immigration Reform and Control Act of 1986, 8 USC §§1101 et seq.

### **6.4. Personnel**

**6.4.1.** All persons working for Contractor and Subcontractor(s) shall refrain from using profane or vulgar language, or any other language that is inappropriate on the job site.

**6.4.2.** The Contractor shall employ a full-time superintendent and necessary assistants who shall have complete authority to represent and act on behalf on the Contractor on all matters pertaining to the Work. The superintendent shall be competent and have a minimum of five (5) years' experience in construction supervision on projects of similar scale and complexity. The superintendent shall be satisfactory to the SCCOE and, if not satisfactory, shall be replaced by the Contractor with one that is acceptable to the SCCOE. The superintendent shall not be changed without the written consent of the SCCOE unless the superintendent ceases to be employed by the Contractor.

**6.4.3.** The Contractor shall employ a competent estimator and necessary assistants or contract for sufficient services of an estimating consultant and to process proposed change orders. The estimator shall have a minimum of five (5) years' experience in estimating. The estimator shall be satisfactory to the SCCOE and, if not satisfactory, shall be replaced by the Contractor with one that is acceptable. The estimator shall not be changed without the written consent of the SCCOE unless the estimator ceases to be employed by the Contractor. The Contractor shall submit PCO's requested by the SCCOE within fourteen (14) calendar days.

**6.4.4.** The Contractor shall employ a competent scheduler and necessary assistants, or contract for sufficient services of a scheduling consultant. The scheduler shall have a minimum of five (5) years' experience in scheduling. The scheduler shall be satisfactory to the SCCOE and, if not satisfactory, shall be replaced by the Contractor with one that is acceptable. The scheduler shall not be changed without the written consent of the SCCOE unless the scheduler ceases to be employed by the Contractor.

**6.4.5.** Contractor shall at all times enforce strict discipline and good order among Contractor's employees and shall not employ on the Project any unfit person or anyone not skilled in the task assigned.

**6.4.6.** If Contractor or any Subcontractor on the Project site fails to comply with any provision herein, the SCCOE may have the offending person(s) immediately removed from the Site, and the person(s) shall

be replaced within three (3) days, at no additional expense to the SCCOE. Contractor, on behalf of it and its Subcontractors, hereby waives any claim that the provisions of this paragraph or the enforcement thereof interferes, or has the potential to interfere, with its right to control the means and methods of its performance and duties under this Contract.

## **6.5. Purchase of Materials and Equipment**

**6.5.1. Error! Bookmark not defined.** The Contractor is required to order and obtain materials and equipment sufficiently in advance of its Work at no additional cost or advance payment from SCCOE to assure that there will be no delays.

**6.5.2. Off-Site Storage of Materials and Equipment.** Contractor shall not store materials and/or equipment off site without first obtaining the SCCOE's express, written consent. If Contractor receives SCCOE's consent to store materials and/or equipment off site ("Stored Materials"), Contractor shall comply with all of the following:

**6.5.2.1. Property of Others Insurance.** Contractor shall procure and maintain, during the entire time Stored Materials are in off-site storage, insurance coverage acceptable to the SCCOE that shall protect Contractor and SCCOE from all claims for Stored Materials that are lost, stolen, or damaged. The SCCOE shall be named as a loss payee for this insurance coverage. The insurance coverage shall include a "loss payable endorsement" stating that all amounts payable will be paid as a joint check to the Contractor and SCCOE. If approved in advance by SCCOE, this required insurance may be obtained by an "Employee Theft Protection Insurance Policy" or an "Employee Theft Protection Bond."

**6.5.2.2. Payment for Stored Materials.** SCCOE shall only make payment to Contractor for Stored Materials if agreed upon in advance, in writing, by the SCCOE and provided that Contractor submits an itemized list of all Stored Materials with Contractor's Application for Payment. Contractor's itemized list of all Stored Materials shall be supported by all of the following:

**6.5.2.2.1.** Itemized breakdown of the Stored Materials for the purpose of requesting partial payment, identifying the serial numbers and exact storage location of each piece of equipment and material; and

**6.5.2.2.2.** Verified invoices for the Stored Materials; and

**6.5.2.2.3.** Original copy of Property of Others Insurance, Employee Theft Protection Insurance Policy, or an Employee Theft Protection Bond based on the type of insurance required by the SCCOE. These documents shall include certificates and endorsements stating the coverage and that the SCCOE is a loss payee or obligee, as appropriate.

## **6.6. Documents on Work**

**6.6.1.** Contractor shall at all times keep on the Work Site, or at another location as the SCCOE may authorize in writing, one legible copy of all Contract Documents, including Addenda and Change Orders, and titles 19 and 24 of the California Code of Regulations, the specified edition(s) of the Uniform Building Code (electronic versions are acceptable), all approved Drawings, Plans, Schedules, and Specifications, and all codes and documents referred to in the Specifications, and made part thereof. These documents shall be kept in good order and available to SCCOE, Construction Manager, Architect, Architect's representatives, the Project Inspector(s), and all authorities having jurisdiction. Contractor shall be acquainted with and comply with the provisions of these titles as they relate to this Project. (See particularly the duties of Contractor, title 24, part 1, California Code of Regulations, section 4-343.) Contractor shall also be acquainted with and comply with all California Code of Regulations provisions relating to conditions on this Project, particularly titles 8 and 17. Contractor shall coordinate with

Architect and Construction Manager and shall submit its verified report(s) according to the requirements of title 24.

**6.6.2. Daily Job Reports.**

**6.6.2.1.** Contractor shall maintain, at a minimum, at least one (1) set of Daily Job Reports on the Project. These must be prepared by the Contractor's employee(s) who are present on Site, and must include, at a minimum, the following information:

- 6.6.2.1.1.** A brief description of all Work performed on that day.
- 6.6.2.1.2.** A summary of all other pertinent events and/or occurrences on that day.
- 6.6.2.1.3.** The weather conditions on that day.
- 6.6.2.1.4.** A list of all Subcontractor(s) working on that day,
- 6.6.2.1.5.** A list of each Contractor employee working on that day and the total hours worked for each employee.
- 6.6.2.1.6.** A complete list of all equipment on Site that day, whether in use or not.
- 6.6.2.1.7.** A complete list of all materials, supplies, and equipment delivered on that day.
- 6.6.2.1.8.** A complete list of all inspections and tests performed on that day.

**6.6.2.2.** Each day Contractor shall provide a copy of the previous day's Daily Job Report to the SCCOE or the SCCOE's Construction Manager.

**6.7. Preservation of Records**

SCCOE shall have the right to examine and audit all Daily Job Reports or other Project records of Contractor's project manager(s), project superintendent(s), and/or project foreperson(s), all certified payroll records and/or related documents including, without limitation, payroll, payment, timekeeping and tracking documents; all books, estimates, records, contracts, documents, bid documents, bid cost data, subcontract job cost reports, and other data of the Contractor, any Subcontractor, and/or supplier, including computations and projections related to bidding, negotiating, pricing, or performing the Work or Contract modification, in order to evaluate the accuracy, completeness, and currency of the cost, manpower, coordination, supervision, or pricing data at no additional cost to the SCCOE. These documents may be duplicative and/or be in addition to any Bid Documents held in escrow by the SCCOE. Contractor shall make available at its office at all reasonable times the materials described in this paragraph for the examination, audit, or reproduction until three (3) years after final payment under this Contract. Notwithstanding the provisions above, Contractor shall provide any records requested by any governmental agency, if available, after the time set forth above.

**6.8. Integration of Work**

**6.8.1.** Contractor shall do all cutting, fitting, patching, and preparation of Work as required to make its several parts come together properly, to fit it to receive or be received by work of other contractors, and to coordinate tolerances to various pieces of work, showing upon, or reasonably implied by, the Drawings and Specifications for the completed structure, and shall conform them as SCCOE and/or Architect may direct.



**6.8.2.** All cost caused by defective or ill-timed Work shall be borne by Contractor, inclusive of repair work.

**6.8.3.** Contractor shall not endanger any work performed by it or anyone else by cutting, excavating, or otherwise altering work and shall not cut or alter work of any other contractor except with written consent of SCCOE.

**6.9. Obtaining of Permits and Licenses**

**6.9.1.** Contractor shall secure and pay for all permits, licenses, and certificates as indicated in the Special Conditions.

**6.10. Work to Comply with Applicable Laws and Regulations**

**6.10.1.** Contractor shall give all notices and comply with all applicable laws, ordinances, rules, and regulations relating to the Work, including the specific laws, ordinances, rules, and regulations as indicated and specified in the Contract Documents and identified below, including but not limited to the appropriate statutes and administrative code sections. If Contractor observes that Drawings and Specifications are at variance therewith, or should Contractor become aware of the development of conditions not covered by Contract Documents that will result in finished Work being at variance therewith, Contractor shall promptly notify SCCOE in writing and any changes deemed necessary by SCCOE shall be made as provided in Contract for changes in Work.

**6.10.1.1.** National Electrical Safety Code, U. S. Department of Commerce

**6.10.1.2.** National Board of Fire Underwriters' Regulations

**6.10.1.3.** Uniform Building Code, latest addition, and the California Code of Regulations, title 24, including amendments

**6.10.1.4.** Manual of Accident Prevention in Construction, latest edition, published by A.G.C. of America

**6.10.1.5.** Industrial Accident Commission's Safety Orders, State of California

**6.10.1.6.** Regulations of the State Fire Marshall (title 19, California Code of Regulations) and Pertinent Local Fire Safety Codes

**6.10.1.7.** Americans with Disabilities Act

**6.10.1.8.** Education Code of the State of California

**6.10.1.9.** Government Code of the State of California

**6.10.1.10.** Labor Code of the State of California, division 2, part 7, Public Works and Public Agencies

**6.10.1.11.** Public Contract Code of the State of California

**6.10.1.12.** California Art Preservation Act

**6.10.1.13.** U. S. Copyright Act

**6.10.1.14.** U. S. Visual Artists Rights Act

**6.10.2.** Contractor shall comply with all applicable mitigation measures, if any, adopted by any public agency with respect to this Project pursuant to the California Environmental Quality Act (Public Resources Code sections 21000 et. seq.)

**6.10.3.** If Contractor performs any Work that it knew, or through exercise of reasonable care should have known, to be contrary to any applicable laws, ordinance, rules, or regulations, Contractor shall bear all costs arising therefrom.

**6.10.4.** Where Specifications or Drawings state that materials, processes, or procedures must be approved by the DSA, State Fire Marshall, or other body or agency, Contractor shall be responsible for satisfying requirements of such bodies or agencies.

**6.11. Safety/Protection of Persons and Property**

**6.11.1.** Contractor will be solely and completely responsible for conditions of the Work Site, including safety of all persons and property during performance of the Work. This requirement will apply continuously and not be limited to normal working hours.

**6.11.2.** The wearing of hard hats will be mandatory at all times for all personnel on Site. Contractor shall supply sufficient hard hats to properly equip all employees and visitors.

**6.11.3.** Any construction review of the Contractor's performance is not intended to include review of the adequacy of the Contractor's safety measures in, on, or near the Work Site.

**6.11.4.** Implementation and maintenance of safety programs shall be the sole responsibility of the Contractor.

**6.11.5.** Contractor shall furnish to the SCCOE a copy of the Contractor's safety plan within the time frame indicated in the Contract Documents and specifically adapted for the Project.

**6.11.6.** Contractor shall be responsible for all damages to persons or property that occur as a result of its fault or negligence in connection with the performance of the Contract and shall take all necessary measures and be responsible for the proper care and completion and final acceptance by SCCOE. All Work shall be solely at Contractor's risk with the exception of damage to the Work caused by "acts of God" as defined in Public Contract Code section 7105.

**6.11.7.** Contractor shall take, and require Subcontractors to take, all necessary precautions for safety of workers on the Project and shall comply with all applicable federal, state, local, and other safety laws, standards, orders, rules, regulations, and building codes to prevent accidents or injury to persons on, about, or adjacent to premises where Work is being performed and to provide a safe and healthful place of employment. Contractor shall furnish, erect, and properly maintain at all times, all necessary safety devices, safeguards, construction canopies, signs, nets, barriers, lights, and watchmen for protection of workers and the public and shall post danger signs warning against hazards created by such features in the course of construction.

**6.11.8. Hazards Control.** Contractor shall store volatile wastes in covered metal containers and remove them from the Site daily. Contractor shall prevent accumulation of wastes that create hazardous conditions. Contractor shall provide adequate ventilation during use of volatile or noxious substances.

**6.11.9.** Contractor shall designate a responsible member of its organization on the Project, whose duty shall be to post information regarding protection and obligations of workers and other notices required under occupational safety and health laws, to comply with reporting and other occupational safety requirements, and to protect the life, safety, and health of workers. Name and position of person so designated shall be reported to SCCOE by Contractor.

**6.11.10.** Contractor shall correct any violations of safety laws, rules, orders, standards, or regulations. Upon the issuance of a citation or notice of violation by the Division of Occupational Safety and Health, Contractor shall correct such violation promptly.

**6.11.11. Storm Water.** Contractor shall comply with the SCCOE's Storm Water Pollution Prevention Plan (SWPPP) and, if indicated in the Special Conditions, shall be the SCCOE's Qualified SWPPP Practitioner, at no additional cost to the SCCOE.

**6.11.12.** In an emergency affecting safety of life or of work or of adjoining property, Contractor, without special instruction or authorization, shall act, at its discretion, to prevent such threatened loss or injury. Any compensation claimed by Contractor on account of emergency work shall be determined by agreement.

**6.11.13.** All salvage materials will become the property of the Contractor and shall be removed from the Site unless otherwise called for in the Contract Documents. However, the SCCOE reserves the right to designate certain items of value that shall be turned over to the SCCOE unless otherwise directed by SCCOE.

**6.11.14.** All connections to public utilities and/or existing on-site services shall be made and maintained in such a manner as to not interfere with the continuing use of same by the SCCOE during the entire progress of the Work.

**6.11.15.** Contractor shall provide such heat, covering, and enclosures as are necessary to protect all Work, materials, equipment, appliances, and tools against damage by weather conditions, such as extreme heat, cold, rain, snow, dry winds, flooding, or dampness.

**6.11.16.** Contractor shall protect and preserve the Work from all damage or accident, providing temporary roofs, window and door coverings, boxing, or other construction as required by the Architect. Contractor shall be responsible for existing structures, walks, roads, trees, landscaping, and/or improvements in working areas; and shall provide adequate protection therefor. If temporary removal is necessary of any of the above items, or damage occurs due to the Work, the Contractor shall replace same at its expense with same kind, quality, and size of Work or item damaged. This shall include any adjoining property of the SCCOE and others.

**6.11.17.** Contractor shall take adequate precautions to protect existing roads, sidewalks, curbs, pavements, utilities, adjoining property, and structures (including, without limitation, protection from settlement or loss of lateral support), and to avoid damage thereto, and repair any damage thereto caused by construction operations.

**6.11.18.** Contractor shall confine apparatus, the storage of materials, and the operations of workers to limits indicated by law, ordinances, permits, or directions of Architect, and shall not interfere with the Work or unreasonably encumber Premises or overload any structure with materials. Contractor shall enforce all instructions of SCCOE and Architect regarding signs, advertising, fires, and smoking, and require that all workers comply with all regulations while on Project Site.

**6.11.19.** Contractor, Contractor's employees, Subcontractors, Subcontractors' employees, or any person associated with the Work shall conduct themselves in a manner appropriate for a school site. No verbal or physical contact with neighbors, students, and faculty, profanity, or inappropriate attire or behavior will be permitted. SCCOE may require Contractor to permanently remove noncomplying persons from Project Site.

**6.11.20.** Contractor shall take care to prevent disturbing or covering any survey markers, monuments, or other devices marking property boundaries or corners. If such markers are disturbed, Contractor shall have a civil engineer, registered as a professional engineer in California, replace them at no cost to SCCOE.

**6.11.21.** In the event that the Contractor enters into any agreement with owners of any adjacent property to enter upon the adjacent property for the purpose of performing the Work, Contractor shall fully indemnify, defend, and hold harmless each person, entity, firm, or agency that owns or has any interest in adjacent property. The form and content of the agreement of indemnification shall be approved by the SCCOE prior to entering the adjacent property. The Contractor shall also indemnify the SCCOE as provided in the indemnification provision herein. These provisions shall be in addition to any other requirements of the owners of the adjacent property.

#### **6.12. Working Evenings and Weekends**

Contractor may be required to work evenings and/or weekends at no additional cost to the SCCOE. Contractor shall give the SCCOE seventy-two (72) hours' notice prior to performing any evening and/or weekend work. Contractor shall perform all evening and/or weekend work only upon SCCOE's written approval and in compliance with all applicable rules, regulations, laws, and local ordinances including, without limitation, all noise and light limitations. Contractor shall reimburse the SCCOE for any Inspector charges necessitated by the Contractor's evening and/or weekend work.

#### **6.13. Cleaning Up**

**6.13.1.** The Contractor shall provide all services, labor, materials, and equipment necessary for protecting the Work, all school occupants, furnishings, equipment, and building structure from damage until its Completion and final acceptance by SCCOE. Dust barriers shall be provided to isolate dust and dirt from construction operations. At Completion of the Work and portions thereof, Contractor shall clean to the original state any areas beyond the Work area that become dust laden as a result of the Work. The Contractor must erect the necessary warning signs and barricades to ensure the safety of all school occupants. The Contractor at all times must maintain good housekeeping practices to reduce the risk of fire damage and must make a fire extinguisher, fire blanket, and/or fire watch, as applicable, available at each location where cutting, braising, soldering, and/or welding is being performed or where there is an increased risk of fire.

**6.13.2.** Contractor at all times shall keep Premises free from debris such as waste, rubbish, and excess materials and equipment caused by the Work. Contractor shall not leave debris under, in, or about the Premises, but shall promptly remove same from the Premises on a daily basis. If Contractor fails to clean up, SCCOE may do so, and the cost thereof shall be charged to Contractor. If Contract is for work on an existing facility, Contractor shall also perform specific clean-up on or about the Premises upon request by the SCCOE as it deems necessary for the continuing education process. Contractor shall comply with all related provisions of the Specifications.

**6.13.3.** If the Construction Manager, Architect, or SCCOE observes the accumulation of trash and debris, the SCCOE will give the Contractor a 24-hour written notice to mitigate the condition.

**6.13.4.** Should the Contractor fail to perform the required clean-up, or should the clean-up be deemed unsatisfactory by the SCCOE, the SCCOE will then perform the clean-up. All cost associated with the clean-up work (including all travel, payroll burden, and costs for supervision) will be deducted from the Contract Price, or SCCOE may withhold those amounts from payment(s) to Contractor.

### **7. SUBCONTRACTORS**

**7.1.** Contractor shall provide the SCCOE with information for all Subcontracts as required in the Contractor's Submittals and Schedules Section.

**7.2.** No contractual relationship exists between the SCCOE and any Subcontractor, supplier, or sub-subcontractor by reason of the Contract.

- 7.3.** Contractor agrees to bind every Subcontractor by terms of the Contract as far as those terms are applicable to Subcontractor's work. If Contractor shall subcontract any part of the Contract, Contractor shall be as fully responsible to SCCOE for acts and omissions of any Subcontractor and of persons either directly or indirectly employed by any Subcontractor, as it is for acts and omissions of persons directly employed by Contractor. The divisions or sections of the Specifications are not intended to control the Contractor in dividing the Work among Subcontractors or limit the work performed by any trade.
- 7.4.** SCCOE's consent to, or approval of, or failure to object to, any Subcontractor under the Contract shall not in any way relieve Contractor of any obligations under the Contract and no such consent shall be deemed to waive any provisions of the Contract.
- 7.5.** Contractor is directed to familiarize itself with sections 4100 through 4114 of the Public Contract Code of the State of California, as regards subletting and subcontracting, and to comply with all applicable requirements therein. In addition, Contractor is directed to familiarize itself with sections 1720 through 1861 of the Labor Code of the State of California, as regards the payment of prevailing wages and related issues, and to comply with all applicable requirements therein all including, without limitation, section 1775 and the Contractor's and Subcontractors' obligations and liability for violations of prevailing wage law and other applicable laws.
- 7.6.** No Contractor whose Bid is accepted shall, without consent of the awarding authority and in full compliance with section 4100, et seq, of the Public Contract Code, including, without limitation, sections 4107, 4107.5, and 4109 of the Public Contract Code, either:
- 7.6.1.** Substitute any person as a Subcontractor in place of the Subcontractor designated in the original Bid; or
- 7.6.2.** Permit any Subcontract to be assigned or transferred, or allow any portion of the Work to be performed by anyone other than the original Subcontractor listed in the Bid; or
- 7.6.3.** Sublet or subcontract any portion of the Work in excess of one-half of one percent (1/2 of 1%) of the Contractor's total bid as to which his original bid did not designate a Subcontractor.
- 7.7.** The Contractor shall be responsible for the coordination of the trades, Subcontractors, sub-subcontractors, and material or equipment suppliers working on the Project.
- 7.8.** Contractor is solely responsible for settling any differences between the Contractor and its Subcontractor(s) or between Subcontractors.
- 7.9.** Contractor must include in all of its subcontracts the assignment provisions as indicated in the Termination section of these General Conditions.

**8. OTHER CONTRACTS/CONTRACTORS**

- 8.1.** SCCOE reserves the right to let other contracts, and/or to perform work with its own forces, in connection with the Project. Contractor shall afford other contractors' reasonable opportunity for introduction and storage of their materials and execution of their work and shall properly coordinate and connect Contractor's Work with the work of other contractors.
- 8.2.** In addition to Contractor's obligation to protect its own Work, Contractor shall protect the work of any other contractor that Contractor encounters while working on the Project.

- 8.3. If any part of Contractor's Work depends for proper execution or results upon work of SCCOE or any other contractor, Contractor shall inspect and promptly report to the SCCOE in writing before proceeding with its Work any defects in SCCOE's or any other contractor's work that render Contractor's Work unsuitable for proper execution and results. Contractor shall be held accountable for damages to SCCOE for SCCOE's or any other contractor's work that Contractor failed to inspect or should have inspected. Contractor's failure to inspect and report shall constitute Contractor's acceptance of all SCCOE's or any other contractor's work as fit and proper for reception of Contractor's Work, except as to defects that may develop in SCCOE's or any other contractor's work after execution of Contractor's Work.
- 8.4. To ensure proper execution of its subsequent work, Contractor shall measure and inspect work already in place and shall at once report to the SCCOE in writing any discrepancy between that executed work and the Contract Documents.
- 8.5. Contractor shall ascertain to its own satisfaction the scope of the Project and nature of SCCOE's or any other contracts that have been or may be awarded by SCCOE in completion of the Project to the end that Contractor may perform this Contract in light of the other contracts, if any.
- 8.6. Nothing herein contained shall be interpreted as granting to Contractor exclusive occupancy of the Site, the Premises, or of the Project. The SCCOE shall have complete access to the Project site for any reasonable purpose at all times. Contractor shall not cause any unnecessary hindrance or delay to the use and/or school operation(s) of the Premises and/or to SCCOE or any other contractor working on the Project. If simultaneous execution of any contract or school operation is likely to cause interference with performance of Contractor's Contract, Contractor shall coordinate with those contractor(s), person(s), and/or entity(s) and shall notify the SCCOE of the resolution.

## **9. DRAWINGS AND SPECIFICATIONS**

- 9.1. A complete list of all Drawings that form a part of the Contract is to be found as an index on the Drawings themselves, and/or may be provided to the Contractor and/or in the Table of Contents.
- 9.2. Materials or Work described in words that so applied have a well-known technical or trade meaning shall be deemed to refer to recognized standards, unless noted otherwise.
- 9.3. Trade Name or Trade Term. It is not the intention of the Contract to go into detailed descriptions of any materials and/or methods commonly known to the trade under "trade name" or "trade term." The mere mention or notation of "trade name" or "trade term" shall be considered sufficient notice to Contractor that it will be required to complete the work so named, complete, finished, and operable, with all its appurtenances, according to the best practices of the trade.
- 9.4. The naming of any material and/or equipment shall mean furnishing and installing of same, including all incidental and accessory items thereto and/or labor therefor, as per best practices of the trade(s) involved, unless specifically noted otherwise.
- 9.5. Contract Documents are complementary, and what is called for by one shall be binding as if called for by all. As such, Drawings and Specifications are intended to be fully cooperative and to agree. However, if Contractor observes that Drawings and Specifications are in conflict, Contractor shall promptly notify SCCOE and Architect in writing, and any necessary changes shall be made as provided in the Contract Documents.
- 9.6. In the case of discrepancy or ambiguity in the Contract Documents, the order of precedence in the Agreement shall prevail. However, in the case of discrepancy or ambiguity solely between and among the Drawings and Specifications, the discrepancy or ambiguity shall be resolved in favor of the interpretation that will provide SCCOE with the functionally complete and operable Project described

in the Drawings and Specifications. In case of ambiguity, conflict, or lack of information, SCCOE will furnish clarifications with reasonable promptness.

- 9.7. Drawings and Specifications are intended to comply with all laws, ordinances, rules, and regulations of constituted authorities having jurisdiction, and were referred to in the Contract Documents, the laws, ordinances, rules, and regulations shall be considered as a part of the Contract within the limits specified. Contractor shall bear all expense of correcting work done contrary to said laws, ordinances, rules, and regulations.

**9.8. Ownership of Drawings**

9.8.1. All copies of the Drawings, Designs, Specifications, and copies of other incidental architectural and engineering work, or copies of other Contract Documents furnished by SCCOE, are the property of SCCOE. They are not to be used by Contractor in other work and, with the exception of signed sets of Contract Documents, are to be returned to SCCOE on request at Completion of Work or may be used by SCCOE as it may require without any additional costs to SCCOE. Neither the Contractor nor any Subcontractor, or material or equipment supplier shall own or claim a copyright in the Drawings, Specifications, and other documents prepared by the Architect. SCCOE hereby grants the Contractor, Subcontractors, sub-subcontractors, and material or equipment suppliers a limited license to use applicable portions of the Drawings prepared for the Project in the execution of their Work under the Contract Documents.

**10. CONTRACTOR'S SUBMITTALS AND SCHEDULES**

Contractor's submittals shall comply with the provisions and requirements of the Specifications including, without limitation Submittals.

**10.1. Schedules, Safety Plan and Complete Subcontractor List**

10.1.1. Within **TEN (10)** calendar days after the date of the Notice to Proceed (unless otherwise specified in the Notice to Proceed or in the Special Conditions), Contractor shall prepare and submit to the SCCOE for review, in a form supported by sufficient data to substantiate its accuracy as the SCCOE may require:

10.1.1.1. **Schedule of Work.** Contractor shall provide a preliminary schedule of construction indicating the starting and completion dates of the various stages of the Work, including any information and following any form as may be specified in the Specifications. Once approved by SCCOE, this shall become the Construction Schedule. This schedule shall include and identify all tasks that are on the Project's critical path with a specific determination of the start and completion of each critical path task, all contract milestones and each milestone's completion date(s) as may be required by the SCCOE, and the date of Project Completion.

10.1.1.1.1. **Proposed Advanced Schedule.** The SCCOE is not required to accept an early completion ("advanced") schedule, i.e., one that shows early completion dates for the Contract completion or milestones. Contractor shall not be entitled to extra compensation if the SCCOE allows the Contractor to proceed performing the Contract on an earlier ("advanced") schedule and Contractor completes the Project, for whatever reason, beyond the date shown in that earlier ("advanced") schedule, but within the Time for Completion indicated in the Contract. A schedule showing the work completed in less than the Time for Completion indicated in the Contract, shall be considered to have Project Float.

10.1.1.1.2. **Float or Slack in the Schedule.** Float or slack is the amount of time between the early start date and the late start date, or the early finish date and the late finish date, of any of the activities in the schedule. Float or slack is not for the exclusive use of or benefit of either the SCCOE or the Contractor, but its use shall be determined solely by the SCCOE.

**10.1.1.2. Schedule of Submittals.** The Contractor shall provide a preliminary schedule of submittals, including Shop Drawings, Product Data, and Samples submittals. Once approved by SCCOE, this shall become the Submittal Schedule. All submittals shall be forwarded to the SCCOE by the date indicated on the approved Submittal Schedule, unless an earlier date is necessary to maintain the Construction Schedule, in which case those submittals shall be forwarded to the SCCOE so as not to delay the Construction Schedule.

**10.1.1.3. Schedule of Values.** The Contractor shall provide a preliminary schedule of values for all component parts of the Work for which progress payments may be requested. The schedule of values must include quantities and prices of items totaling the Contract Price and must subdivide the Work into component parts in sufficient detail to serve as the basis for progress payments during construction. The preliminary schedule of values should include, at a minimum, the following information and the following structure:

**10.1.1.3.1.** Divided into at least the following categories:

- 10.1.1.3.1.1.** Overhead and profit;
- 10.1.1.3.1.2.** Supervision;
- 10.1.1.3.1.3.** General conditions;
- 10.1.1.3.1.4.** Layout;
- 10.1.1.3.1.5.** Mobilization;
- 10.1.1.3.1.6.** Submittals;
- 10.1.1.3.1.7.** Bonds and insurance;
- 10.1.1.3.1.8.** Closeout documentation;
- 10.1.1.3.1.9.** Demolition;
- 10.1.1.3.1.10.** Installation;
- 10.1.1.3.1.11.** Rough-in;
- 10.1.1.3.1.12.** Finishes;
- 10.1.1.3.1.13.** Testing;
- 10.1.1.3.1.14.** Punchlist and acceptance.

**10.1.1.3.2.** Divided by each of the following areas:

- 10.1.1.3.2.1.** Site work;
- 10.1.1.3.2.2.** By each building;
- 10.1.1.3.2.3.** By each floor.

**10.1.1.3.3.** The preliminary schedule of values shall not provide for values any greater than the following percentages of the Contract value:

- 10.1.1.3.3.1.** Mobilization and layout combined to equal not more than 1%;
- 10.1.1.3.3.2.** Submittals, samples and shop drawings combined to equal not more than 3%;
- 10.1.1.3.3.3.** Bonds and insurance combined to equal not more than 2%.

**10.1.1.3.4. Closeout Documentation.** Closeout Documentation shall have a value in the preliminary schedule of not less than 5%. The value for Closeout Documentation shall be in addition to and shall not be a part of the Contract retention.

**10.1.1.3.5.** Notwithstanding any provision of the Contract Documents to the contrary, payment of the Contractor's overhead, supervision, general conditions costs, and profit, as reflected in the Cost Breakdown, shall be paid by the SCCOE in equal installments, based on percentage complete, with the disbursement of Progress Payments and the Final Payment.



**10.1.1.3.6.** Contractor shall certify that the preliminary schedule of values as submitted to the SCCOE is accurate and reflects the costs as developed in preparing Contractor's bid. The preliminary schedule of values shall be subject to the SCCOE's review and approval of the form and content thereof. In the event that the SCCOE objects to any portion of the preliminary schedule of values, the SCCOE shall notify the Contractor, in writing, of the SCCOE's objection(s) to the preliminary schedule of values. Within five (5) calendar days of the date of the SCCOE's written objection(s), Contractor shall submit a revised preliminary schedule of values to the SCCOE for review and approval. The foregoing procedure for the preparation, review and approval of the preliminary schedule of values shall continue until the SCCOE has approved the entirety of the preliminary schedule of values.

**10.1.1.3.7.** Once the preliminary schedule of values is approved by the SCCOE, this shall become the Schedule of Values. The Schedule of Values shall not be thereafter modified or amended by the Contractor without the prior written consent and approval of the SCCOE, which may be granted or withheld in the sole discretion of the SCCOE.

**10.1.1.4. Safety Plan.** The Contractor shall provide a preliminary Contractor's Safety Plan specifically adapted for the Project. Contractor's Safety Plan shall comply with the following requirements:

**10.1.1.4.1.** All applicable requirements of California Division of Industrial Safety ("CalOSHA") and/or of the United States Occupational Safety and Health Administration ("OSHA").

**10.1.1.4.2.** All provisions regarding Project safety, including all applicable provisions in these General Conditions.

**10.1.1.4.3.** Contractor's Safety Plan shall be prepared in both English and in the predominate language(s) of the Contractor's and its Subcontractors' employees.

**10.1.1.5. Complete Subcontractor List.** Contractor shall provide a preliminary Subcontractor List stating the name, address, telephone number, facsimile number, California State Contractors License number, classification, and monetary value of all Subcontracts for parties furnishing labor, material, or equipment for the Project.

**10.1.2.** Contractor must provide all schedules both in hard copy and electronically, in a format (e.g., Microsoft Project or Primavera) approved in advance by the SCCOE.

**10.1.3.** The SCCOE will review the schedules submitted and the Contractor shall make changes and corrections in the schedules as requested by the SCCOE and resubmit the schedules until approved by the SCCOE.

**10.1.4.** The SCCOE shall have the right at any time to revise the Schedule of Values if, in the SCCOE's sole opinion, the Schedule of Values does not accurately reflect the value of the Work performed.

**10.1.5.** All submittals and schedules must be approved by the SCCOE before Contractor can rely on them as a basis for payment.

## **10.2. Monthly Progress Schedule(s)**

**10.2.1.** Contractor shall provide Monthly Progress Schedule(s) to the SCCOE. A Monthly Progress Schedule shall update the approved Construction Schedule or the last Monthly Progress Schedule,

showing all work completed and to be completed. The Monthly Progress Schedule shall be sent to the SCCOE and shall be in a format acceptable to the SCCOE and contain a written narrative of the progress of work that month and any changes, delays, or events that may affect the work. The process for SCCOE approval of the Monthly Progress Schedule shall be the same as the process for approval of the Construction Schedule.

**10.2.2.** Contractor shall also submit Monthly Progress Schedule(s) with all payment applications.

### **10.3. Material Safety Data Sheets (MSDS)**

Contractor is required to ensure Material Safety Data Sheets are available in a readily accessible place at the Work Site for any material requiring a Material Safety Data Sheet per the Federal "Hazard Communication" standard, or employees right to know law. The Contractor is also required to ensure proper labeling on substances brought onto the Project Site and that any person working with the material or within the general area of the material is informed of the hazards of the substance and follows proper handling and protection procedures. Two additional copies of the Material Safety Data Sheets shall also be submitted directly to the SCCOE.

### **10.4. Logistic Plan**

Contractor shall provide a staging and logistics plan identifying laydown areas, loading and unloading areas, crane locations, fence locations, temporary utility connections, trailer locations, and emergency evacuation meeting area. This Logistics Plan must be approved by the SCCOE prior to the Contractor mobilizing on the Site.

## **11. SITE ACCESS, CONDITIONS AND REQUIREMENTS**

### **11.1. Site Investigation**

Before bidding on the Work, Contractor shall make a careful investigation of the Site and thoroughly familiarize itself with the requirements of the Contract. By the act of submitting a bid for the Work included in the Contract, Contractor shall be deemed to have made a complete study and investigation, and to be familiar with and accepted the existing conditions of the Site.

### **11.2. Soils Investigation Report**

**11.2.1.** When a soils investigation report obtained from test holes at Site is available, that report shall be available to the Contractor but shall not be a part of the Contract. Any information obtained from that report, or any information given on Drawings as to subsurface soil condition or to elevations of existing grades or elevations of underlying rock is approximate only, is not guaranteed, does not form a part of the Contract, and Contractor may not rely thereon. By submitting its bid, Contractor acknowledges that it made visual examination of Site and made whatever tests Contractor deems appropriate to determine underground condition of soil.

**11.2.2.** Contractor agrees that no claim against SCCOE will be made by Contractor for damages and hereby waives any rights to damages if, during progress of Work, Contractor encounters subsurface or latent conditions at Site materially differing from those shown on Drawings or indicated in Specifications, or for unknown conditions of an unusual nature that differ materially from those ordinarily encountered in the work of the character provided for in Plans and Specifications, except as indicated in the provisions of these General Conditions regarding trenches, trenching, and/or existing utility lines.

### **11.3. Access to Work**

SCCOE and its representatives shall at all times have access to Work wherever it is in preparation or progress, including storage and fabrication. Contractor shall provide safe and proper facilities for access so that SCCOE's representatives may perform their functions.

#### **11.4. Layout and Field Engineering**

**11.4.1.** All field engineering required for layout of this Work and establishing grades for earthwork operations shall be furnished by Contractor at its expense. This Work shall be done by a qualified, California-registered civil engineer approved in writing by SCCOE and Architect. Any required Record and/or As-Built Drawings of Site development shall be prepared by the approved civil engineer.

**11.4.2.** Contractor shall be responsible for having ascertained pertinent local conditions such as location, accessibility, and general character of the Site and for having satisfied itself as to the conditions under which the Work is to be performed. SCCOE shall not be liable for any claim for allowances because of Contractor's error or negligence in acquainting itself with the conditions at the Site.

**11.4.3.** Contractor shall protect and preserve established benchmarks and monuments and shall make no changes in locations without the prior written approval of SCCOE. Contractor shall replace any benchmarks or monuments that are lost or destroyed subsequent to proper notification of SCCOE and with SCCOE's approval.

#### **11.5. Utilities**

Utilities shall be provided as indicated in the Specifications.

#### **11.6. Sanitary Facilities**

Sanitary facilities shall be provided as indicated in the Specifications.

#### **11.7. Surveys**

Contractor shall provide surveys done by a California-licensed civil engineer surveyor to determine locations of construction, grading, and site work as required to perform the Work.

#### **11.8. Regional Notification Center**

Contractor, except in an emergency, shall contact the appropriate regional notification center at least two (2) days prior to commencing any excavation if the excavation will be conducted in an area or in a private easement that is known, or reasonably should be known, to contain subsurface installations other than the underground facilities owned or operated by the SCCOE, and obtain an inquiry identification number from that notification center. No excavation shall be commenced and/or carried out by the Contractor unless an inquiry identification number has been assigned to the Contractor or any Subcontractor and the Contractor has given the SCCOE the identification number. Any damages arising from Contractor's failure to make appropriate notification shall be at the sole risk and expense of the Contractor. Any delays caused by failure to make appropriate notification shall be at the sole risk of the Contractor and shall not be considered for an extension of the Contract time.

#### **11.9. Existing Utility Lines**

**11.9.1.** Pursuant to Government Code section 4215, SCCOE assumes the responsibility for removal, relocation, and protection of main or trunk utility lines and facilities located on the construction Site at the time of commencement of construction under the Contract with respect to any such utility facilities that are not identified in the Plans and Specifications. Contractor shall not be assessed for liquidated

damages for delay in completion of the Project caused by failure of SCCOE or the owner of a utility to provide for removal or relocation of such utility facilities.

**11.9.2.** Locations of existing utilities provided by SCCOE shall not be considered exact, but approximate within reasonable margin and shall not relieve Contractor of responsibilities to exercise reasonable care nor costs of repair due to Contractor's failure to do so. SCCOE shall compensate Contractor for the costs of locating, repairing damage not due to the failure of Contractor to exercise reasonable care, and removing or relocating such utility facilities not indicated in the Plans and Specifications with reasonable accuracy, and for equipment necessarily idle during such work.

**11.9.3.** No provision herein shall be construed to preclude assessment against Contractor for any other delays in completion of the Work. Nothing in this Article shall be deemed to require SCCOE to indicate the presence of existing service laterals, appurtenances, or other utility lines, within the exception of main or trunk utility lines. Whenever the presence of these utilities on the Site can be inferred from the presence of other visible facilities, such as buildings, meter junction boxes, on or adjacent to the Site.

**11.9.4.** If Contractor, while performing Work, discovers utility facilities not identified by SCCOE in Contract Plans and Specifications, Contractor shall immediately, but in no case longer than two (2) business days, notify the SCCOE and the utility in writing. The cost of repair for damage to above-mentioned visible facilities without prior written notification to the SCCOE shall be borne by the Contractor.

**11.10. Notification**

Contractor understands, acknowledges and agrees that the purpose for prompt notification to the SCCOE pursuant to these provisions is to allow the SCCOE to investigate the condition(s) so that the SCCOE shall have the opportunity to decide how the SCCOE desires to proceed as a result of the condition(s). Accordingly, failure of Contractor to promptly notify the SCCOE in writing, pursuant to the applicable provisions of these General Conditions, shall constitute Contractor's waiver of any claim for damages or delay incurred as a result of the condition(s).

**11.11. Hazardous Materials**

Contractor shall comply with all provisions and requirements of the Contract Documents related to hazardous materials including, without limitation, Hazardous Materials Procedures and Requirements.

**11.12. No Signs**

Neither the Contractor nor any other person or entity shall display any signs not required by law or the Contract Documents at the Site, fences trailers, offices, or elsewhere on the Site without specific prior written approval of the SCCOE.

**12. TRENCHES**

**12.1. Trenches Greater Than Five Feet**

Pursuant to Labor Code section 6705, if the Contract Price exceeds \$25,000 and involves the excavation of any trench or trenches five (5) feet or more in depth, the Contractor shall, in advance of excavation, promptly submit to the SCCOE and/or a registered civil or structural engineer employed by the SCCOE or Architect, a detailed plan showing the design of shoring for protection from the hazard of caving ground during the excavation of such trench or trenches.

**12.2. Excavation Safety**

If such plan varies from the Shoring System Standards established by the Construction Safety Orders, the plan shall be prepared by a registered civil or structural engineer, but in no case shall such plan be less effective than that required by the Construction Safety Orders. No excavation of such trench or trenches shall be commenced until said plan has been accepted by the SCCOE or by the person to whom authority to accept has been delegated by the SCCOE.

#### **12.3. No Tort Liability of SCCOE**

Pursuant to Labor Code section 6705, nothing in this Article shall impose tort liability upon the SCCOE or any of its employees.

#### **12.4. No Excavation without Permits**

The Contractor shall not commence any excavation Work until it has secured all necessary permits including the required CAL OSHA excavation/shoring permit. Any permits shall be prominently displayed on the Site prior to the commencement of any excavation.

#### **12.5. Discovery of Hazardous Waste, Unusual Conditions and/or Unforeseen Conditions**

**12.5.1.** Pursuant to Public Contract Code section 7104, if the Work involves digging trenches or other excavations that extend deeper than four (4) feet below the surface, the Contractor shall immediately, but in no case longer than two (2) business days, and before the following conditions are disturbed, notify the SCCOE, in writing, of any:

**12.5.1.1.** Material that the Contractor believes may be material that is hazardous waste, as defined in section 25117 of the Health and Safety Code, and requires removal to a Class I, Class II, or Class III disposal site in accordance with provisions of existing law.

**12.5.1.2.** Subsurface or latent physical conditions at the Site differing from those indicated.

**12.5.1.3.** 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.

**12.5.2.** The SCCOE 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 herein.

**12.5.3.** In the event that a dispute arises between SCCOE 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. The Contractor shall retain any and all rights provided by the Contract or by law that pertain to the resolution of disputes and protests, which include the requirement that Contractor complies with the notice and PCO provisions of the Contract Documents. Contractor's failure to submit a proposed change order pursuant to the terms of the Contract Documents shall be deemed a waiver of Contractor's right to an adjustment of the Contract Price or Contract Time.

### **13. INSURANCE AND BONDS**

#### **13.1. Insurance**

Unless different provisions and/or limits are indicated in the Special Conditions, all insurance required of Contractor and/or its Subcontractor(s) shall be in the amounts and include the provisions set forth herein.

**13.1.1. Commercial General Liability and Automobile Liability Insurance**

**13.1.1.1.** Contractor shall procure and maintain, during the life of the Contract, Commercial General Liability Insurance and Automobile Liability Insurance that shall protect Contractor, SCCOE, State, Construction Manager(s), Project Inspector(s), and Architect(s) from all claims for bodily injury, property damage, personal injury, death, advertising injury, and medical payments arising from operations under the Contract. This coverage shall be provided in a form at least as broad as the Insurance Services Office (ISO) standard form. Contractor shall ensure that Products Liability and Completed Operations coverage, Fire Damage Liability, and any Auto including owned, non-owned, and hired, are included within the above policies and at the required limits, or Contractor shall procure and maintain these coverages separately.

**13.1.1.2.** Contractor's deductible or self-insured retention for its Commercial General Liability Insurance policy shall not exceed \$25,000 unless approved in writing by SCCOE.

**13.1.2. Umbrella Liability Insurance**

**13.1.2.1.** Contractor may procure and maintain, during the life of the Contract, an Umbrella Liability Insurance Policy to meet the policy limit requirements of the required policies if Contractor's underlying policy limits are less than required.

**13.1.2.2.** There shall be no gap between the per occurrence amount of any underlying policy and the start of the coverage under the Umbrella Liability Insurance Policy. Any Umbrella Liability Insurance Policy shall protect Contractor, SCCOE, State, Construction Manager(s), Project Manager(s), and Architect(s) in amounts and including the provisions as set forth in the Supplementary Conditions (if any) and/or Special Conditions, and that complies with all requirements for Commercial General Liability and Automobile Liability and Employers' Liability Insurance.

**13.1.3. Subcontractor(s):** Contractor shall require its Subcontractor(s), if any, to procure and maintain Commercial General Liability Insurance, Automobile Liability Insurance, and Umbrella Liability Insurance with minimum limits equal to the amounts required of the Contractor.

**13.1.4. Workers' Compensation and Employers' Liability Insurance**

**13.1.4.1.** In accordance with provisions of section 3700 of the California Labor Code, the Contractor and every Subcontractor shall be required to secure the payment of compensation to its employees.

**13.1.4.2.** Contractor shall procure and maintain, during the life of this Contract, Workers' Compensation Insurance and Employers' Liability Insurance for all of its employees engaged in Work under the Contract, on/or at the Site of the Project. This coverage shall cover, at a minimum, medical and surgical treatment, disability benefits, rehabilitation therapy, and survivors' death benefits. Contractor shall require its Subcontractor(s), if any, to procure and maintain Workers' Compensation Insurance and Employers' Liability Insurance for all employees of Subcontractor(s). Any class of employee or employees not covered by a Subcontractor's insurance shall be covered by Contractor's insurance. If any class of employee or employees engaged in Work under the Contract, on or at the Site of the Project, are not protected under the Workers' Compensation Insurance, Contractor shall provide, or shall cause a Subcontractor to provide, adequate insurance coverage for the protection of any employee(s) not otherwise protected before any of those employee(s) commence work.

**13.1.5. Builder's Risk Insurance: Builder's Risk "All Risk" Insurance.**

Contractor shall procure and maintain, during the life of this Contract, Builder's Risk (Course of Construction), or similar first party property coverage acceptable to the SCCOE, issued on a replacement cost value basis. The cost shall be consistent with the total replacement cost of all insurable Work included within the Contract Documents. Coverage is to insure against all risks of accidental physical loss and shall include without limitation the perils of vandalism and/or malicious mischief (both without any limitation regarding vacancy or occupancy), sprinkler leakage, civil authority, theft, sonic disturbance, earthquake, flood, collapse, wind, fire, war, terrorism, lightning, smoke, and rioting. Coverage shall include debris removal, demolition, increased costs due to enforcement of all applicable ordinances and/or laws in the repair and replacement of damaged and undamaged portions of the property, and reasonable costs for the Architect's and engineering services and expenses required as a result of any insured loss upon the Work and Project, including completed Work and Work in progress, to the full insurable value thereof.

**13.1.6. Proof of Carriage of Insurance and Other Requirements: Endorsements and Certificates**

**13.1.6.1.** Contractor shall not commence Work, nor shall it allow any Subcontractor to commence Work under the Contract, until Contractor and its Subcontractor(s) have procured all required insurance and Contractor has delivered in duplicate to the SCCOE complete endorsements (or entire insurance policies) and certificates indicating the required coverages have been obtained, and the SCCOE has approved these documents.

**13.1.6.2.** Endorsements, certificates, and insurance policies shall include the following:

**13.1.6.2.1.** A clause stating:

**13.1.6.2.1.1.** "This policy shall not be amended, canceled or modified and the coverage amounts shall not be reduced until notice has been mailed to SCCOE, Architect, and Construction Manager stating date of amendment, modification, cancellation or reduction. Date of amendment, modification, cancellation or reduction may not be less than thirty (30) days after date of mailing notice."

**13.1.6.2.1.2.** In lieu of receiving an endorsement with this clause, the SCCOE may, at its sole discretion, accept written notification from Contractor and its insurer to the SCCOE of any amendments, modifications, cancellations or reduction in coverage, not less than thirty (30) days prior to such coverage changes occur.

**13.1.6.2.2.** Language stating in particular those insured, extent of insurance, location and operation to which insurance applies, expiration date, to whom cancellation and reduction notice will be sent, and length of notice period.

**13.1.6.3.** All endorsements, certificates and insurance policies shall state that SCCOE, its trustees, employees and agents, the State of California, Construction Manager(s), Project Manager(s), Inspector(s) and Architect(s) are named additional insureds under all policies except Workers' Compensation Insurance and Employers' Liability Insurance.

**13.1.6.4.** Contractor's and Subcontractors' insurance policy(s) shall be primary and non-contributory to any insurance or self-insurance maintained by SCCOE, its trustees, employees and/or agents, the State of California, Construction Manager(s), Project Manager(s), Inspector(s), and/or Architect(s).

**13.1.6.5.** All endorsements shall waive any right to subrogation against any of the named additional insureds.

**13.1.6.6.** All policies shall be written on an occurrence form.

**13.1.6.7.** Unless otherwise stated in the Special Conditions, all of Contractor's insurance shall be with admitted insurance companies with an A.M. Best rating of no less than **A: VII.**

**13.1.6.8.** The insurance requirements set forth herein shall in no way limit the Contractor's liability arising out or relating to the performance of the Work or related activities.

**13.1.6.9.** Failure of Contractor and/or its Subcontractor(s) to comply with the insurance requirements herein shall be deemed a material breach of the Agreement.

**13.1.7. Insurance Policy Limits**

Unless different limits are indicated in the Special Conditions, the limits of insurance shall not be less than the following amounts:

<b>Commercial General Liability</b>	Combined Single Limit	\$2,000,000 per occurrence; \$4,000,000 aggregate
	Product Liability and Completed Operations	\$2,000,000 per occurrence; \$4,000,000 aggregate
<b>Automobile Liability – Any Auto</b>	Combined Single Limit	\$1,000,000 per occurrence.
<b>Workers Compensation</b>		Worker's Compensation Liability of no less than \$1,000,000 per accident
<b>Employers' Liability</b>		\$2,000,000
<b>Builder's Risk (Course of Construction)</b>		Issued for the value and scope of Work indicated herein.
<b>Property of Others Insurance</b>		Coverage for all claims for Stored Materials that are lost, stolen, or damaged. Please indicate if included in Builder's Risk.
<b>Excess Liability</b>		\$4,000,000

**13.2. Contract Security – Bonds**

**13.2.1.** Contractor shall furnish two surety bonds issued by a California admitted surety insurer as follows:

**13.2.1.1. Performance Bond:** A bond in an amount at least equal to one hundred percent (100%) of Contract Price as security for faithful performance of this Contract.

**13.2.1.2. Payment Bond:** A bond in an amount at least equal to one hundred percent (100%) of the Contract Price as security for payment of persons performing labor and/or furnishing materials in connection with the Contract.

**13.2.2.** Cost of bonds shall be included in the Bid and Contract Price.

**13.2.3.** All bonds related to the Project shall be in the forms set forth in the Contract Documents and shall comply with all requirements of the Contract Documents, including, without limitation, the bond forms.



#### **14. WARRANTY/GUARANTEE/INDEMNITY**

##### **14.1. Warranty/Guarantee**

**14.1.1.** Contractor shall obtain and preserve for the benefit of the SCCOE, manufacturer's warranties on materials, fixtures, and equipment incorporated into the Work.

**14.1.2.** In addition to guarantees required elsewhere, Contractor shall, and hereby does guarantee and warrant all Work against all defects for a period of **ONE (1)** year after the later of the following dates:

**14.1.2.1.** The date of completion as defined in Public Contract Code section 7107, subdivision (c),

**14.1.2.2.** The commissioning date for the Project, if any.

**14.1.3.** At the SCCOE's sole option, Contractor shall repair or replace any and all of that Work, together with any other Work that may be displaced in so doing, that may prove defective in workmanship and/or materials within a **ONE (1)** year period from date of Completion as defined above without expense whatsoever to SCCOE. In the event of failure of Contractor and/or Surety to commence and pursue with diligence said replacements or repairs within **TEN (10)** days after being notified in writing, Contractor and Surety hereby acknowledge and agree that SCCOE is authorized to proceed to have defects repaired and made good at expense of Contractor and/or Surety who hereby agree to pay costs and charges therefore immediately on demand.

**14.1.4.** If, in the opinion of SCCOE, defective work creates a dangerous condition or requires immediate correction or attention to prevent further loss to SCCOE or to prevent interruption of operations of SCCOE, SCCOE will attempt to give the notice required above. If Contractor or Surety cannot be contacted or neither complies with SCCOE's request for correction within a reasonable time as determined by SCCOE, SCCOE may, notwithstanding the above provision, proceed to make all corrections and/or provide attentions the SCCOE believes are necessary. The costs of correction or attention shall be charged against Contractor and Surety of the guarantees provided in this Article or elsewhere in the Contract Documents.

**14.1.5.** The above provisions do not in any way limit the guarantees on any items for which a longer guarantee is specified or on any items for which a manufacturer gives a guarantee for a longer period. Contractor shall furnish to SCCOE all appropriate guarantee or warranty certificates as indicated in the Specifications or upon request by SCCOE.

**14.1.6.** Nothing herein shall limit any other rights or remedies available to SCCOE.

##### **14.2. Indemnity**

**14.2.1.** To the furthest extent permitted by California law, Contractor shall indemnify, defend with legal counsel reasonably acceptable to the SCCOE, keep and hold harmless the SCCOE and its consultants, the Architect and its consultants, the Construction Manager and its consultants, separate contractors, and their respective board members, officers, representatives, contractors, agents, and employees, in both individual and official capacities ("Indemnitees"), against all suits, claims, damages, losses, and expenses, including but not limited to attorney's fees, caused by, arising out of, resulting from, or incidental to, the performance of the Work by Contractor, its Subcontractors, vendors, or suppliers, including, without limitation, any such suit, claim, damage, loss, or expense attributable to, without limitation, bodily injury, sickness, disease, death, alleged patent violation or copyright infringement, or to injury to or destruction of tangible property (including damage to the Work itself) including the loss of use resulting therefrom, except to the extent caused by the sole negligence, active negligence, or willful misconduct of the Indemnitees, and/or to any extent that would render these provisions void or unenforceable. This agreement and obligation of Contractor shall not be construed to negate, abridge, or otherwise reduce any right or obligation of indemnity that would otherwise exist as to any party or person described herein.

This indemnification, defense, and hold harmless obligation includes any failure or alleged failure by Contractor to comply with any provision of law, any failure or alleged failure to timely and properly fulfill all of its obligations under the Contract Documents in strict accordance with their terms, and without limitation, any stop payment notices actions or liens, including liens by the California Department of Labor Standards Enforcement.

**14.2.2.** Contractor shall give prompt notice to the SCCOE in the event of any injury (including death), loss, or damage included herein. Without limitation of the provisions herein, if Contractor's agreement to indemnify, defend, and hold harmless the Indemnitees as provided herein against liability for damage arising out of bodily injury to persons or damage to property caused by or resulting from the negligence of any of the Indemnitees shall to any extent be or be determined to be void or unenforceable, it is the intention of the parties that these circumstances shall not otherwise affect the validity or enforceability of Contractor's agreement to indemnify, defend, and hold harmless the rest of the Indemnitees, as provided herein, and in the case of any such suits, claims, damages, losses, or expenses caused in part by the default, negligence, or act or omission of Contractor, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, and in part by any of the Indemnitees, Contractor shall be and remain fully liable on its agreements and obligations herein to the full extent permitted by law.

**14.2.3.** In any and all claims against any of the Indemnitees by any employee of Contractor, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, Contractor's indemnification obligation herein shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any Subcontractor under workers' compensation acts, disability benefit acts, or other employee benefit acts.

**14.2.4.** The defense and indemnification obligations hereunder shall survive the Completion of Work, including the warranty/guarantee period, and/or the termination of the Agreement.

## **15. TIME**

### **15.1. Notice to Proceed**

**15.1.1.** SCCOE may issue a Notice to Proceed as indicated in the Instructions to Bidders.

### **15.2. Hours of Work**

#### **15.2.1. Sufficient Forces**

Contractor and Subcontractors shall continuously furnish sufficient forces to ensure the performance of the Work in accordance with the Construction Schedule.

#### **15.2.2. Performance During Working Hours**

Work shall be performed during regular working hours as permitted by the appropriate governmental agency except that in the event of an emergency, or when required to complete the Work in accordance with job progress, Work may be performed outside of regular working hours with the advance written consent of the SCCOE and approval of any required governmental agencies.

### **15.3. Progress and Completion**

#### **15.3.1. Time of the Essence**

Time limits stated in the Contract Documents are of the essence to the Contract. By executing the Agreement, Contractor confirms that the Contract Time is a reasonable period for performing the Work.

#### **15.3.2. No Commencement Without Insurance**

**15.3.2.1.** Contractor shall not commence operations on the Project or elsewhere prior to the effective date of insurance and bonds. The date of commencement of the Work shall not be changed by the effective date of such insurance. If Contractor commences Work without insurance and bonds, all Work is performed at Contractor's peril and shall not be compensable until and unless Contractor secures bonds and insurance pursuant to the terms of the Contract Documents and subject to SCCOE's claim for damages.

#### **15.4. Schedule**

Contractor shall provide to SCCOE, Construction Manager, and Architect a schedule in conformance with the Contract Documents and as required in the Notice to Proceed and the Contractor's Submittals and Schedules section of these General Conditions.

#### **15.5. Expeditious Completion**

The Contractor shall proceed expeditiously with adequate forces and shall achieve Completion within the Contract Time.

### **16. EXTENSIONS OF TIME – LIQUIDATED DAMAGES**

#### **16.1. Contractor's Notice of Delay**

**16.1.1.** In addition to the requirements indicated in this subsection, Contractor shall notify the SCCOE pursuant to the claim's provisions in these General Conditions of any anticipated delay and its cause.

**16.1.2.** Contractor shall, within **FIVE (5)** calendar days of any delay impacting the critical path in completing the Work, notify SCCOE in writing of the causes of the delay including documentation and facts explaining the delay.

**16.1.3.** Any request by Contractor for an adjustment of the Contract Price or the Contract Time for a delay shall be submitted in accordance with the provisions in the Contract Documents governing changes in Work. When requesting time, requests must be submitted with full justification and documentation. Such justification must be based on the official Construction Schedule as updated at the time of occurrence of the delay or execution of Work related to any changes to the Scope of Work.

**16.1.4.** Any claim for delay must include the following information as support, without limitation:

**16.1.4.1.** The duration of the activity relating to the changes in the Work and the resources (manpower, equipment, material, etc.) required to perform the activities within the stated duration.

**16.1.4.2.** Specific logical ties to the Contract Schedule for the proposed changes and/or delay showing the activity/activities in the Construction Schedule that are affected by the change and/or delay. (A portion of any delay of seven (7) days or more must be provided.)

**16.1.4.3.** A recovery schedule must be submitted.

**16.1.5.** SCCOE shall review the facts and extent of any noticed delay and may grant Contract Time extension(s) of time for completing Work when, in the SCCOE's judgment, the findings of fact justify an extension.

**16.1.6.** Extension(s) of time shall apply only to that portion of Work affected by delay and shall not apply to other portions of Work not so affected.

**16.1.7.** An extension of time may only be granted if Contractor has timely submitted the Construction Schedule as required herein.

**16.1.8.** Following submission of a notice of delay, the SCCOE may determine whether the delay is to be considered:

**16.1.8.1.** Excusable and Compensable, Excusable, or Unexcused.

**16.1.8.2.** How long the delay continues; and

**16.1.8.3.** To what extent the prosecution and Completion of the Work might be delayed thereby.

**16.1.9.** Contractor's failure to request adjustment(s) of the Contract Time in strict conformity with applicable provisions of the Contract Documents shall be deemed Contractor's waiver of its right to assert a claim for a delay.

#### **16.2. Excusable and Compensable Delay(s)**

**16.2.1.** Contractor is **not** entitled to additional compensation for any delay, even a delay caused by Adverse Weather or an Excusable Delay, unless **all** of the following conditions are met:

**16.2.1.1.** The SCCOE is responsible for the delay;

**16.2.1.2.** The delay is unreasonable under the circumstances involved and impacts the critical path of the Work and extends the most current Contract Completion date;

**16.2.1.3.** The delay was not within the contemplation of SCCOE and Contractor; and

**16.2.1.4.** Contractor complies with the claims procedure of the Contract Documents.

**16.2.1.5.** The delay could **not** have been avoided or mitigated by the Contractor's care, prudence, foresight, and diligence.

**16.2.1.6.** The delay extends the most current Contract Completion date, and is not concurrent with a Contractor caused delay or other type of Excusable Delay.

#### **16.3. Excusable Delay(s)**

**16.3.1.** An "Excusable Delay" shall mean an interruption of the Work beyond the reasonable control of the Contractor and that:

**16.3.1.1.** Could have not been avoided by the Contractor exercising care, prudence, foresight, and diligence, and

**16.3.1.2.** Actually extended the most current Project Completion date.

**16.3.2.** The Contractor may be entitled to an extension of the Project Completion date if there is an Excusable Delay, but the Contractor shall not be entitled to additional compensation for an Excusable Delay.

**16.3.3.** Excusable Delays are limited to interruptions that satisfy the above requirements and that are acts of God; acts of a public enemy; fires; floods; windstorms; tornadoes; earthquakes; wars; riots; insurrections; epidemics; quarantine restrictions; strikes; lockouts; fuel shortages; freight embargoes; and Adverse Weather that satisfies the requirements herein.

**16.3.4.** Contractor is aware that governmental agencies and utilities, including, without limitation, the Division of the State Architect, the Department of General Services, gas companies, electrical utility companies, water SCCOE, and other agencies may have to approve Contractor-prepared drawings or approve a proposed installation. Contractor shall include in its bid, time for possible review of its drawings and for reasonable delays and damages that may be caused by such agencies. Contractor is not entitled to make a claim for damages or delays or an Excusable Delay arising from the review of Contractor's drawings or other approvals from the Division of the State Architect, the Department of General Services, gas companies, electrical utility companies, water SCCOE, and other agencies.

**16.3.5. Computation of Time / Adverse Weather**

**16.3.5.1.** The Contractor will only be allowed a time extension for Adverse Weather conditions if requested by Contractor within five (5) calendar days of the Adverse Weather event, and only if all of the following conditions are met – thereby making the resulting delay an Excusable Delay.

**16.3.5.1.1.** The weather conditions constitute Adverse Weather, as defined herein and further specified in the Special Conditions;

**16.3.5.1.2.** Contractor can verify that the Adverse Weather caused delays in excess of five (5) hours of the indicated labor required to complete the scheduled tasks of Work on the day affected by the Adverse Weather;

**16.3.5.1.3.** The Contractor's crew is dismissed as a result of the Adverse Weather; and

**16.3.5.1.4.** The number of days of delay for the month exceed those indicated in the Special Conditions.

**16.3.5.2.** A day-for-day extension will only be allowed for those days in excess of those indicated in the Special Conditions.

**16.3.5.3.** The Contractor shall work seven (7) days per week, if necessary, irrespective of inclement weather, to maintain access and the Construction Schedule, and to protect the Work under construction from the effects of Adverse Weather, all at no further cost to the SCCOE.

**16.3.5.4.** The Contract Time has been determined with consideration given to the average climate weather conditions prevailing in the County in which the Project is located.

**16.4. Unexcused Delay(s) – Liquidated Damages**

**16.4.1.** Contractor and SCCOE hereby agree that the exact amount of damages for failure to complete the Work within the time specified is extremely difficult or impossible to determine. If the Work is not completed within the time specified in the Contract Documents, it is understood that the SCCOE will suffer damage. It being impractical and unfeasible to determine the amount of actual damage, it is agreed the Contractor shall forfeit to SCCOE as fixed and liquidated damages, and not as a penalty, the

amount set forth in the Agreement for each calendar day of delay in Completion. Contractor and its Surety shall be liable for the amount thereof pursuant to Government Code section 53069.85.

**16.4.2.** Contractor shall not forfeit liquidated damages for an Excusable Delay or an Excusable and Compensable Delay.

## **17. CHANGES IN THE WORK**

### **17.1. No Changes Without Authorization**

**17.1.1.** There shall be no change whatsoever in the Drawings, Specifications, or in the Work without an executed Change Order, a written Construction Change Directive, or a written Force Account Directive authorized by the SCCOE as herein provided. SCCOE shall not be liable for the cost of any extra work, any changes to the Contract Time, or any substitutions, changes, additions, omissions, or deviations from the Drawings and Specifications unless the SCCOE has authorized the same and the cost thereof has been approved in writing by an executed Change Order, a written Construction Change Directive, or a written Force Account Directive.

**17.1.2.** The Surety, in executing and providing the Performance Bond and the Payment Bond, shall be deemed to have expressly agreed to any change to the Contract and to any extension of time made by reason thereof.

**17.1.3.** No extension of time for performance of the Work shall be allowed hereunder unless claim for such extension is made at the time changes in the Work are ordered, and such time duly adjusted in writing in the Change Order, Construction Change Directive, or Force Account Directive. The provisions of the Contract Documents shall apply to all such changes, additions, and omissions with the same effect as if originally embodied in the Drawings and Specifications.

**17.1.4.** Contractor shall perform immediately all work that has been authorized by a fully executed Change Order, Construction Change Directive, or Force Account Directive. Contractor shall be fully responsible for any and all delays and/or expenses caused by Contractor's failure to expeditiously perform this Work.

**17.1.5.** Should any Change Order result in an increase in the Contract Price, the cost of that Change Order shall be agreed to, in writing, in advance by Contractor and SCCOE and be subject to the monetary limitations set forth in Public Contract Code section 20118.4. In the event that Contractor proceeds with any change in Work without a Change Order executed by the SCCOE, Construction Change Directive, or Force Account Directive, Contractor waives any claim of additional compensation or time for that additional work.

**17.1.6.** Contractor understands, acknowledges, and agrees that the reason for SCCOE authorization is so that SCCOE may have an opportunity to analyze the Work and decide whether the SCCOE shall proceed with the Change Order or alter the Project so that a change in Work becomes unnecessary.

**17.1.7.** No payments will be made, nor will SCCOE accept proposed change orders until the Contractor has complied with all the requirements of the Escrow of Bid Documentation document.

### **17.2. Architect Authority**

The Architect will have authority to order minor changes in the Work not involving any adjustment in the Contract Price, or an extension of the Contract Time, or a change that is inconsistent with the intent of the Contract Documents. These changes shall be affected by written Change Order, Construction Change Directive, or by Architect's response(s) to RFI(s).

### **17.3. Change Orders**

**17.3.1.** A Change Order is a written instrument prepared and issued by the SCCOE and/or the Architect and signed by the SCCOE, the Contractor, the Architect, and approved by the Project Inspector (if necessary) and DSA (if necessary), stating their agreement regarding all of the following:

**17.3.1.1.** A description of a change in the Work;

**17.3.1.2.** The amount of the adjustment in the Contract Price, if any; and

**17.3.1.3.** The extent of the adjustment in the Contract Time, if any.

**17.3.2.** If a Change Order is required to be approved by DSA, the SCCOE may call it a Construction Change Document.

**17.3.3.** If the SCCOE approves of a Change, the SCCOE or the Architect shall provide a written Change Order to the Contractor describing the Change and setting forth the adjustment to the Contract Time and the Contract Price, if any, on account of that Change. All Change Orders shall be full payment and final settlement of all rights for direct, indirect and consequential costs, including without limitation, costs of delays or impacts related to, or arising out of, items covered and affected by the Change Order, as well as any adjustments to the Contract Time. Any demand or request for an adjustment to the Contract Time or the Contract Price relating to any Change incorporated into a Change Order not presented by the Contractor for inclusion in the Change Order shall be deemed waived. The Contractor shall execute the Change Order prepared pursuant to the foregoing. After the Change Order has been prepared and forwarded to the Contractor for execution, the Contractor shall not modify or amend the form or content of such Change Order, or any portion thereof.

### **17.4. Construction Change Directives / Unilateral Change Orders**

**17.4.1.** A Construction Change Directive (or Unilateral Change Order) is a written order prepared and issued by the SCCOE, the Construction Manager, and/or the Architect and signed by the SCCOE and the Architect, directing a change in the Work. The SCCOE may as provided by law, by Construction Change Directive and without invalidating the Contract, order changes in the Work consisting of additions, deletions, or other revisions. If all or a portion of the Project is being funded by funds requiring approval by the State Allocation Board (SAB), these revisions may be subject to compensation once approval of same is received and funded by the SAB, and funds are released by the Office of Public-School Construction (OPSC). Any dispute as to the sum of the Construction Change Directive or timing of payment shall be resolved pursuant to the Payment and Claims and Disputes provisions herein. **A Construction Change Directive is NOT a Construction Change Document (which is defined above as a Change Order that DSA must approve).**

**17.4.2.** The SCCOE may issue a Construction Change Directive in the absence of agreement on the terms of a Change Order.

### **17.5. Force Account Directives**

**17.5.1.** When work, for which a definite price has not been agreed upon in advance, is to be paid for on a force account basis, all direct costs necessarily incurred and paid by the Contractor for labor, material, and equipment used in the performance of that Work, shall be subject to the approval of the SCCOE and compensation will be determined as set forth herein.

**17.5.2.** SCCOE will issue a Force Account Directive to proceed with the Work on a force account basis, and a not-to-exceed budget will be established by SCCOE.

**17.5.3.** All requirements regarding direct cost for labor, labor burden, material, equipment, and markups on direct costs for overhead and profit described in this section shall apply to Force Account Directives. However, SCCOE will only pay for actual costs verified in the field by the SCCOE or its authorized representative(s) on a daily basis.

**17.5.4.** Contractor shall be responsible for all cost related to the administration of Force Account Directive. The markup for overhead and profit for Contractor modifications shall be full compensation to the Contractor to administer Force Account Directive.

**17.5.5.** Contractor shall notify SCCOE or its authorized representative(s) at least twenty-four (24) hours prior to proceeding with any of the force account work. Furthermore, the Contractor shall notify the SCCOE when it has consumed eighty percent (80%) of the budget and shall not exceed the budget unless specifically authorized in writing by the SCCOE. Contractor will not be compensated for force account work in the event that Contractor fails to timely notify the SCCOE regarding the commencement of force account work or exceeding the force account budget.

**17.5.6.** Contractor shall diligently proceed with the work, and on a daily basis, submit a daily force account report on a form supplied by the SCCOE no later than 5:00 p.m. each day. The report shall contain a detailed itemization of the daily labor, material, and equipment used on the force account work only. The names of the individuals performing the force account work shall be included on the daily force account reports. The type and model of equipment shall be identified and listed. SCCOE will review the information contained in the reports, and sign the reports no later than the next workday, and return a copy of the report to Contractor for its records. SCCOE will not sign, nor will Contractor receive compensation for work SCCOE cannot verify. Contractor will provide a weekly force account summary indicating the status of each Force Account Directive in terms of percent complete of the not-to-exceed budget and the estimated percent complete of the work.

**17.5.7.** In the event Contractor and SCCOE reach a written agreement on a set cost for the work while the work is proceeding based on a Force Account Directive, the Contractor's signed daily force account reports shall be discontinued, and all previously signed reports shall be invalid.

#### **17.6. Price Request**

**17.6.1. Definition of Price Request.** A Price Request ("PR") is a written request prepared by the Architect requesting the Contractor to submit to the SCCOE and the Architect an estimate of the effect of a proposed change in the Work on the Contract Price and the Contract Time.

**17.6.2. Scope of Price Request.** A Price Request shall contain adequate information, including any necessary Drawings and Specifications, to enable Contractor to provide the cost breakdowns required herein. Contractor shall not be entitled to any additional compensation for preparing a response to a Price Request, whether ultimately accepted or not.

#### **17.7. Proposed Change Order**

**17.7.1. Definition of Proposed Change Order.** A Proposed Change Order ("PCO") is a written request prepared by the Contractor requesting that the SCCOE and the Architect issue a Change Order based upon a proposed change to the Work.

**17.7.2. Changes in Contract Price.** A PCO shall include breakdowns pursuant to the provisions herein to validate any change in Contract Price.

**17.7.3. Changes in Time.** A PCO shall also include any changes in time required to complete the Project. Any additional time requested shall not be the number of days to make the proposed change but must be based upon the impact to the Construction Schedule as defined in the Contract Documents. If Contractor



fails to request a time extension in a PCO, then the Contractor is thereafter precluded from requesting time and/or claiming a delay.

**17.7.4. Unknown and/or Unforeseen Conditions.** If Contractor submits a PCO requesting an increase in Contract Price and/or Contract Time that is based at least partially on Contractor's assertion that Contractor has encountered unknown and/or unforeseen condition(s) on the Project, then Contractor shall base the PCO on provable information that, beyond a reasonable doubt and to the SCCOE's satisfaction, demonstrates that the unknown and/or unforeseen condition(s) were actually unknown and/or unforeseen and that the condition(s) were reasonably unknown and/or unforeseen. If not, the SCCOE shall deny the PCO, and the Contractor shall complete the Project without any increase in Contract Price and/or Contract Time based on that PCO.

**17.7.5. Time to Submit PCO.** Contractor shall submit its PCO within five (5) days of the date Contractor discovers, or reasonably should discover, the circumstances giving rise to the proposed change order, unless additional time to submit a proposed change order is granted in writing by the SCCOE.

**17.8. Format for Proposed Change**

**17.8.1.** The following "Format for Proposed Change For Subcontractor Performed Work" and "Format For Proposed Change For Contractor Performed Work" shall be used as applicable by the SCCOE and the Contractor (e.g. Change Orders, PCO's) to communicate proposed additions and deductions to the Contract, supported by attached documentation

FORMAT FOR PROPOSED CHANGE FOR SUBCONTRACTOR PERFORMED WORK

	<b><u>SUBCONTRACTOR PERFORMED WORK</u></b>	<b><u>ADD</u></b>	<b><u>DEDUCT</u></b>
(A)	<b><u>Labor Charge</u></b> 1. <b>Hours.</b> Attach total itemized hours and rates fully encumbered. 2. • 3. <b>Rate.</b> This shall be no more than the Straight-Time Total Hourly Rate as determined by the Department of Industrial Relations ("DIR") for the applicable labor category.		
(B)	<b><u>Material Charge</u></b> Attach itemized quantity and unit cost plus sales tax and invoice(s) from vendor(s). •		
(C)	<b><u>Equipment Charge</u></b> Attach invoice(s) from supplier(s). •		
	• <div style="text-align: right;"><b><u>Subtotal (A+B+C)</u></b></div>		
(E)	<b><u>Subcontractor's Overhead and Profit Charge</u></b> 1. This shall be no more than ten percent (10%) of item (F). • 2. This shall be the total cumulative mark-up permitted for the Subcontractor and Subcontractor's Subcontractor(s) (i.e., all "lower-tier" Subcontractor(s)). •		
	• <div style="text-align: right;"><b><u>Subtotal (D+E)</u></b></div>		
(G)	<b><u>Contractor's Overhead, Profit, Bond and Insurance</u></b> 1. This shall be no more than fifteen percent (15%) of Item (H). • 2. This shall be the total mark-up permitted for Contractor.		
(H)	• <div style="text-align: right;"><b><u>Subtotal (F+G)</u></b></div>		
	<b><u>Time</u></b>	<div style="text-align: right;">_____ Days</div>	

**FORMAT FOR PROPOSED CHANGE FOR CONTRACTOR PERFORMED WORK**

	<u>CONTRACTOR PERFORMED WORK</u>	<u>ADD</u>	<u>DEDUCT</u>
	<u><b>Labor Charge</b></u> 1. <b>Hours.</b> Attach total itemized hours and rates fully encumbered. • 2. <b>Rate.</b> This shall be no more than the Straight-Time Total Hourly Rate as determined by the Department of Industrial Relations ("DIR") for the applicable labor category.		
	<u><b>Material Charge</b></u> Attach itemized quantity and unit cost plus sales tax and invoice(s) from vendor(s). •		
	<u><b>Equipment Charge</b></u> Attach invoice(s) from supplier(s). •		
	• <u><b>Subtotal (A+B+C)</b></u>		
	<u><b>Contractor's Overhead, Profit, Bond and Insurance</b></u> 1. This shall be no more than fifteen percent (15%) of <b>Item (F)</b> . • 2. This shall be the total mark-up permitted for Contractor.		
	• <u><b>Subtotal (D+E)</b></u>		
	<u><b>Time</b></u>	_____ Days	
	<u><b>Contractor's Home Office Overhead</b></u> • This shall be no more than \$200 times the number of days of Item (I) (i.e., not to exceed \$200/day)		
	<u><b>TOTAL (F+H)</b></u>		

**17.8.2.** All proposed cost requests by Contractor for a change shall include a complete itemized breakdown with the following detail:

**17.8.2.1. Labor.** Labor breakdown by trade classification, wage rates, and estimated hours. Labor costs shall only include fringe benefits indicated by governing trade organizations. Wages shall not exceed current prevailing wages in the locality for performance of the changes.

**17.8.2.1.1.** The Contractor's or Subcontractors' labor burden and Workers' Compensation premium shall only be charged as indicated herein. In no event shall Contractor include any other charges than as indicated herein without the prior written approval of the SCCOE.

**17.8.2.2. Material.** Material quantities, and types of products, and transportation costs, if applicable.

**17.8.2.3. Equipment.** Equipment breakdown by make, type, size, rental rates, equipment hours and transportation costs, if applicable.

**17.8.2.3.1.** The equipment costs shall not exceed one hundred percent (100%) of the Association of Equipment Distributors (AED) rental rates or Caltrans rates, whichever is less. Hourly, daily, weekly, or monthly rates shall be used, whichever is lower. Hourly rates including operator shall not be used.

**17.8.2.3.2.** The actual time to be paid for equipment shall be the time that the equipment is in productive operation on the Work under Contract Modification. In computing the hourly rental of equipment, any time less than thirty (30) minutes shall be considered one-half (1/2) hour. No payment will be made for time while equipment is inoperative due to breakdown, or for non-workdays. In addition, the rental time shall not include the time required to move the equipment to and from the project site. No mobilization or demobilization will be allowed for equipment already on site. If such equipment is not moved by its own power, then loading and transportation costs will be paid in lieu of rental time thereof. However, neither moving time nor loading and transportation costs will be paid if the equipment is used on the Project Site in any other way than upon the work directly related to the Contract Modification.

**17.8.2.3.3.** Tools and equipment common to the trade having a replacement value of one thousand dollars (\$1,000) or less shall be considered to be small tools or small equipment, and no payment will be made since the costs of these tools and equipment is included as part of the markup for overhead and profit defined herein.

**17.8.2.3.4.** Payment to the Contractor for the use of equipment as set forth above shall constitute full compensation to the Contractor for the cost of fuel, power, oil, lubricants, supplies, small equipment, necessary attachments, repairs and maintenance of any kind, depreciation, storage, insurance, labor (except for equipment operators), and any and all costs to the Contractor incidental to the use of the equipment.

**17.8.2.3.5.** Should Contractor, or any of its owners, officers, directors or agents, hold any ownership interest in any company, organization, association or corporation from whom rental equipment is secured. Contractor shall immediately notify SCCOE of such and the price set for any such rental shall be agreed upon in advance by the Contractor and the SCCOE.

**17.8.2.3.6. Overhead and Profit.** Markup for overhead and profit, which shall be used to compensate Contractor for all costs for all administration, general conditions, and supervision, including, without limitation:

**17.8.2.3.6.1.** All field, field office and home office personnel including, but not limited to, principals, project managers, superintendents, supervisory foremen, estimators, project engineers, detailers, draftsmen, schedulers, consultants, watchmen, payroll clerks, administrative assistants, labor compliance costs and secretaries.

**17.8.2.3.6.2.** All field, field office and home office expenses including, but not limited to, field trailers, parking, storage sheds, office equipment and supplies, telephone service and long distance telephone calls, fax machines, temporary utilities, sanitary facilities and services, janitorial services, small tools and equipment common to the trade with a cost under \$1000 each, portable scaffolding, blocking, shores, appliances, job vehicles, security and fencing, conformance to regulatory requirements including compliance to safety regulations, safety programs and meetings, cartage, warranties, As-Built Drawings, as well as any related maintenance costs.

**17.8.2.3.6.3.** Administrative functions such as, but not limited to, reviewing, coordinating, distributing, processing, posting, recording, estimating, negotiating, expediting, engineering, drawing, detailing, revising shop drawings, carting, cleaning, protecting the work, and other incidental Work related to the change.

**17.8.2.3.6.4.** All other costs and taxes required to be paid, but not included under direct costs as defined above including, without limitation, payroll taxes, social security, etc.

**17.8.2.3.6.5.** All costs for Contractor's bonds and insurance.

**17.8.2.3.6.6.** Taxes: Federal excise tax shall not be included. SCCOE will issue an exemption on request.

**17.8.2.3.7.** Justification for any adjustment in Contract Time including a schedule analysis identifying critical schedule activities delayed by the request.

#### **17.9. Change Order Certification**

**17.9.1.** All Change Orders and PCOs shall include the following certification by the Contractor. The Parties acknowledged that if a Change Order is approved that does not include this language, that Change Order shall be deemed to include this certification language:

***The Contractor approves the foregoing as to the changes, if any, and the price specified for each item and the extension of time allowed, if any, for completion of the entire Work as stated herein, and agrees to furnish all labor, materials, and service, and perform all work necessary to complete all additional work specified for the consideration stated herein. Submission of sums which have no basis in fact or which Contractor knows are false are at the sole risk of Contractor and may be a violation of the False Claims Act set forth under Government Code section 12650 et seq. It is understood that the changes herein to the Contract shall only be effective when approved by the SCCOE. It is expressly understood that the value of the extra Work or changes includes all of the Contractor's costs, expenses, field overhead, home office overhead, profit, both direct and indirect, resulting from additional time required on the Project or resulting from delay to the Project. Any costs, expenses, damages, or time extensions not included are deemed waived.***

#### **17.10. Determination of Change Order Cost**

**17.10.1.** The amount of the increase or decrease in the Contract Price from a Change Order, if any, shall be determined in one or more of the following ways as applicable to a specific situation and at the SCCOE's discretion:

**17.10.1.1.** SCCOE acceptance of a PCO;

**17.10.1.2.** By unit prices contained in Contractor's original bid;

**17.10.1.3.** By agreement between SCCOE and Contractor.

**17.11. Deductive Change Orders**

If Contractor offers a proposed amount for a deductive Change Order(s), Contractor shall include a minimum of five percent (5%) total overhead and profit to be deducted with the amount of the work of the Change Order(s). If Subcontractor work is involved, Subcontractors shall also include a minimum of five percent (5%) overhead and profit to be deducted with the amount of its deducted work, for a total minimum of ten percent (10%) total overhead and profit to be deducted. Any deviation from this provision shall not be allowed.

**17.12. Discounts, Rebates and Refunds**

For purposes of determining the cost, if any, of any change, addition, or omission to the Work hereunder, all trade discounts, rebates, refunds, and all returns from the sale of surplus materials and equipment shall accrue and be credited to the Contractor, and the Contractor shall make provisions so that such discounts, rebates, refunds, and returns may be secured, and the amount thereof shall be allowed as a reduction of the Contractor's cost in determining the actual cost of construction for purposes of any change, addition, or omission in the Work as provided herein.

**17.13. Accounting Records**

With respect to portions of the Work performed by Change Orders and Construction Change Directives, Contractor shall keep and maintain cost-accounting records satisfactory to the SCCOE, which shall be available to the SCCOE on the same terms as any other books and records Contractor is required to maintain pursuant to the Contract Documents.

**17.14. Notice Required**

If Contractor is seeking an adjustment in the Contract Price, or any extension in the Contract Time for Completion, it shall notify SCCOE pursuant to the provisions of the Contract Documents. No adjustment in the Contract Price or Contract Time shall be considered unless made in accordance with the Contract Documents. Contractor shall proceed to execute the Work even though the adjustment may not have been agreed upon. Any change in the Contract Price or extension of the Contract Time resulting from such contract adjustment shall only be authorized by a Change Order.

**17.15. Applicability to Subcontractors**

Any requirements under this Article shall be equally applicable to Change Orders or Construction Change Directives issued to Subcontractors by the Contractor to the extent as required by the Contract Documents.

**17.16. Alteration to Change Order Language**

Contractor shall not alter Change Orders or reserve time in Change Orders. Contractor shall execute finalized Change Orders and proceed under the provisions herein with proper notice.

**17.17. Failure of Contractor to Execute Change Order**

Contractor shall be in default of the Contract if Contractor fails to execute a Change Order when the Contractor agrees with the addition and/or deletion of the Work in that Change Order.

**18. REQUEST FOR INFORMATION**

**18.1.** Any Request for Information ("RFI") shall reference all applicable Contract Document(s), including Specification section(s), detail(s), page number(s), drawing number(s), and sheet number(s), etc. Contractor shall make suggestions and interpretations of the issue raised by each RFI. An RFI cannot modify the Contract Price, Contract Time, or the Contract Documents.

**18.2.** Contractor shall be liable to the SCCOE for all costs incurred by the SCCOE associated with the processing, reviewing, evaluating and responding to any RFI, including without limitation, fees of the Architect and any other design consultant to the Architect or the SCCOE, that SCCOE reasonably determines:

**18.2.1.** Does not reflect adequate or competent supervision or coordination by the Contractor or any Subcontractor; or

**18.2.2.** Does not reflect the Contractor's adequate or competent knowledge of the requirements of the Work or the Contract; or

**18.2.3.** Requests an interpretation or decision of a matter where the information sought is equally available to the Contractor; or

**18.2.4.** Is not justified for any other reason.

**18.3.** Prior to submitting the RFI, Contractor shall diligently review the Contract Documents for information responsive to the RFI, including information incorporated by reference. Contractor should not issue an RFI regarding information contained in or inferable from the Contract Documents, including information incorporated by reference. An RFI is invalid if the RFI response is contained in or inferable from the Contract Documents.

**18.4.** Contractor shall be responsible for preparing and submitting each RFI so as to not cause delay to the progress of the Work nor to cause any impact to the Contractor's labor productivity. An RFI may be considered untimely if not submitted within **Forty-Eight (48) hours** of receipt from a Contractor's subcontractor. Untimely submission of any RFI will preclude Contractor from asserting any claims for delay or for labor impact against the SCCOE.

**19. PAYMENTS**

**19.1. Contract Price**

**19.1.1.** The Contract Price is stated in the Agreement and, including authorized adjustments, is the total amount payable by the SCCOE to the Contractor for performance of the Work pursuant to the Contract Documents.

**19.2. Applications for Progress Payments**

**19.2.1. Procedure for Applications for Progress Payments**

**19.2.1.1. Application for Progress Payment**

**19.2.1.1.1.** Not before the fifth (5<sup>th</sup>) day of each calendar month during the progress of the Work, Contractor shall submit to the SCCOE and the Architect an itemized Application for Payment for Work completed in accordance with the Schedule of Values. The Application for Payment shall be notarized, if required, and supported by the following or each portion thereof unless waived by the SCCOE in writing:

**19.2.1.1.1.1.** The amount paid to the date of the Application for Payment to the Contractor, to all its Subcontractors, and all others furnishing labor, material, or equipment for its Contract;

**19.2.1.1.1.2.** The amount being requested by the Application for Payment by the Contractor on its own behalf and separately stating the amount requested on behalf of each of the Subcontractors and all others furnishing labor, material, and equipment under the Contract;

**19.2.1.1.1.3.** The balance that will be due to each of the entities after payment is made;

**19.2.1.1.1.4.** A certification that the As-Built Drawings and annotated Specifications are current;

**19.2.1.1.1.5.** An Itemized breakdown of Work performed;

**19.2.1.1.1.6.** An updated and acceptable construction schedule in conformance with the provisions herein;

**19.2.1.1.1.7.** The additions to and subtractions from the Contract Price and Contract Time;

**19.2.1.1.1.8.** A total of the retentions held;

**19.2.1.1.1.9.** The material invoices, evidence of equipment purchases, rentals, and other support and details of cost as the SCCOE may require from time to time;

**19.2.1.1.1.10.** The percentage of completion of the Contractor's Work by line item;

**19.2.1.1.1.11.** The Schedule of Values updated from the preceding Application for Payment;

**19.2.1.1.1.12.** A duly completed and executed conditional waiver and release upon progress payment compliant with Civil Code section 8132 from each subcontractor of any tier and supplier to be paid from the current progress payment;

**19.2.1.1.1.13.** A duly completed and executed unconditional waiver and release upon progress payment compliant with Civil Code section 8134 from each subcontractor of any tier and supplier that was paid from the previous progress payment; and

**19.2.1.1.1.14.** A certification by the Contractor of the following:

**19.2.1.1.1.15.** *The Contractor warrants title to all Work performed as of the date of this payment application. The Contractor further warrants that all Work performed as of the date of this payment application is free and clear of liens, claims, security interests, or encumbrances in favor of the Contractor, Subcontractors, material and equipment suppliers, workers, or other persons or*



***entities making a claim by reason of having provided labor, materials, and equipment relating to the Work, except those of which the SCCOE has been informed.*** If requested by the SCCOE, a third party, or as required by the California Department of Industrial Relations all requested or required certified payroll record ("CPR(s)") for each journeyman, apprentice, worker, or other employee employed by the Contractor and/or each Subcontractor in connection with the Work for the period of the Application for Payment.

**19.2.1.1.2.** Contractor shall be subject to the False Claims Act set forth under Government Code section 12650 et seq., for information provided with any Application for Progress Payment.

**19.2.2. Prerequisites for Progress Payments**

**19.2.2.1. First Payment Request:** The following items, if applicable, must be completed before SCCOE will accept and/or process Contractor's first payment request:

- 19.2.2.1.1.** Installation of the Project sign;
- 19.2.2.1.2.** Installation of field office;
- 19.2.2.1.3.** Installation of temporary facilities and fencing;
- 19.2.2.1.4.** Schedule of Values;
- 19.2.2.1.5.** Contractor's Construction Schedule;
- 19.2.2.1.6.** Schedule of unit prices, if applicable;
- 19.2.2.1.7.** Submittal Schedule;
- 19.2.2.1.8.** Receipt by Architect of all submittals due as of the date of the payment application;
- 19.2.2.1.9.** Copies of necessary permits;
- 19.2.2.1.10.** Copies of authorizations and licenses from governing authorities;
- 19.2.2.1.11.** Initial progress report;
- 19.2.2.1.12.** Surveyor qualifications;
- 19.2.2.1.13.** Written acceptance of SCCOE's survey of rough grading, if applicable;
- 19.2.2.1.14.** List of all Subcontractors, with names, license numbers, telephone numbers, and Scope of Work;
- 19.2.2.1.15.** All bonds and insurance endorsements; and
- 19.2.2.1.16.** Resumes of Contractor's project manager, and if applicable, job site secretary, record documents recorder, and job site superintendent.

**19.2.2.2. Second Payment Request:** SCCOE will not process the second payment request until and unless all submittals and Shop Drawings have been accepted for review by the Architect.

**19.2.2.3. No Waiver of Criteria:** Any payment made to Contractor where criteria set forth herein have not been met shall not constitute a waiver of said criteria by SCCOE. Instead, such payment shall be construed as a good faith effort by SCCOE to resolve differences so Contractor may pay its Subcontractors and suppliers. Contractor agrees that failure to submit such items may constitute a material breach of the Contract by Contractor and may subject Contractor to termination.

### **19.3. Progress Payments**

#### **19.3.1. SCCOE's Approval of Application for Payment**

**19.3.1.1.** Upon receipt of an Application for Payment, SCCOE shall act in accordance with the following:

**19.3.1.1.1.** Each Application for Payment shall be reviewed by the SCCOE as soon as practicable after receipt for the purpose of determining that the Application for Payment is a proper Application for Payment.

**19.3.1.1.2.** Any Application for Payment determined not to be a proper Application for Payment suitable for payment shall be returned to the Contractor as soon as practicable, but not later than seven (7) days, after receipt. An Application for Payment returned pursuant to this paragraph shall be accompanied by a document setting forth in writing the reasons why the Application for Payment is not proper. The number of days available to the SCCOE to make a payment without being subject to any applicable statute regarding prompt payment or interest accrual, shall be reduced by the number of days by which the SCCOE exceeds this seven-day return requirement.

**19.3.1.1.3.** An approved Application for Payment shall be considered payable if funds are available for payment after the deduction of amounts allowed by law and/or pursuant to the section herein entitled "Decisions to Withhold Payment,"

**19.3.1.2.** The SCCOE's review of the Contractor's Application for Payment will be based on the SCCOE's and the Architect's observations at the Site and the data comprising the Application for Payment that the Work has progressed to the point indicated and that, to the best of the SCCOE's and the Architect's knowledge, information, and belief, the quality of the Work is in accordance with the Contract Documents. The foregoing representations are subject to:

**19.3.1.2.1.** Observation of the Work for general conformance with the Contract Documents,

**19.3.1.2.2.** Results of subsequent tests and inspections,

**19.3.1.2.3.** Minor deviations from the Contract Documents correctable prior to Completion, and

**19.3.1.2.4.** Specific qualifications expressed by the Architect.

**19.3.1.3.** SCCOE's approval of each Application for Payment shall be based on Contractor complying with all requirements for a fully complete and valid Application for Payment.

#### **19.3.2. Payments to Contractor**

**19.3.2.1.** Within thirty (30) days after approval of the Application for Payment, Contractor shall be paid a sum equal to ninety-five percent (95%) of the value of the Work performed (as verified by Architect and Inspector and certified by Contractor) up to the last day of the previous month, less the

aggregate of previous payments and amount to be withheld. The value of the Work completed shall be Contractor's best estimate. No inaccuracy or error in Contractor's estimate shall operate to release the Contractor, or any Surety upon any bond, from damages arising from such Work, or from the SCCOE's right to enforce each and every provision of this Contract, and the SCCOE shall have the right subsequently to correct any error made in any estimate for payment.

**19.3.2.2.** SCCOE shall withhold five percent (5%) retention from all Progress Payments.

**19.3.2.3.** SCCOE may withhold ten percent (10%) retention from all Progress Payments pursuant to Public Contract Code section 7201, if the Project is determined to be "substantially complex."

**19.3.2.4.** The Contractor shall not be entitled to have any payment requests processed, or be entitled to have any payment made for Work performed, so long as any lawful or proper direction given by the SCCOE concerning the Work, or any portion thereof, remains incomplete.

**19.3.3. No Waiver**

No payment by SCCOE hereunder shall be interpreted so as to imply that SCCOE has inspected, approved, or accepted any part of the Work. Notwithstanding any payment, the SCCOE may enforce each and every provision of this Contract. The SCCOE may correct or require correction of any error subsequent to any payment.

**19.3.4. Warranty of Title**

**19.3.4.1.** If a lien or a claim based on a stop notice or stop payment notice of any nature should at any time be filed against the Work or any SCCOE property, by any entity that has supplied material or services at the request of the Contractor, Contractor and Contractor's Surety shall promptly, on demand by SCCOE and at Contractor's and Surety's own expense, take any and all action necessary to cause any such lien or a claim based on a stop notice or stop payment notice to be released or discharged immediately therefrom.

**19.3.4.2.** If the Contractor fails to furnish to the SCCOE within ten (10) calendar days after demand by the SCCOE, satisfactory evidence that a lien or a claim based on a stop notice or stop payment notice has been so released, discharged, or secured, the SCCOE may discharge such indebtedness and deduct the amount required therefore, together with any and all losses, costs, damages, and attorney's fees and expense incurred or suffered by SCCOE from any sum payable to Contractor pursuant to the Contract.

**19.4. Decisions to Withhold Payment**

**19.4.1. Reasons to Withhold Payment**

SCCOE may withhold payment in whole, or in part, to the extent reasonably necessary to protect the SCCOE if, in the SCCOE's opinion, the representations to the SCCOE required herein cannot be made. SCCOE may withhold payment, in whole, or in part, to such extent as may be necessary to protect the SCCOE from loss because of, but not limited to:

**19.4.1.1.** Defective Work not remedied within **FORTY-EIGHT (48)** hours of written notice to Contractor;

**19.4.1.2.** Stop notices, stop payment notices or other liens served upon the SCCOE as a result of the Contract;

**19.4.1.3.** Liquidated damages assessed against the Contractor;

- 19.4.1.4.** The cost to complete the Work if there exists reasonable doubt that the Work can be completed for the unpaid balance of the Contract Price or by the Completion Date;
- 19.4.1.5.** Damage to the SCCOE or other contractor(s);
- 19.4.1.6.** Unsatisfactory performance of the Work by Contractor;
- 19.4.1.7.** Failure to store and properly secure materials;
- 19.4.1.8.** Failure of the Contractor to submit, on a timely basis, proper, sufficient, and acceptable documentation required by the Contract Documents, including, without limitation, a Construction Schedule, Schedule of Submittals, Schedule of Values, Monthly Progress Schedules, Shop Drawings, Product Data and samples, Proposed product lists, executed Change Orders, and/or verified reports;
- 19.4.1.9.** Failure of the Contractor to maintain As-Built Drawings;
- 19.4.1.10.** Erroneous estimates by the Contractor of the value of the Work performed, or other false statements in an Application for Payment;
- 19.4.1.11.** Unauthorized deviations from the Contract Documents;
- 19.4.1.12.** Failure of the Contractor to perform the Work in a timely manner in compliance with the Construction Schedule, established progress schedules, and/or completion dates;
- 19.4.1.13.** If requested by the SCCOE, or the failure to provide to the DIR, certified payroll records acceptable to the SCCOE and the DIR for each journeyman, apprentice, worker, or other employee employed by the Contractor and/or each Subcontractor in connection with the Work for the period of the Application for Payment;
- 19.4.1.14.** Failure to properly pay prevailing wages as defined in Labor Code sections 1720 et seq. and/or failure to comply with any other Labor Code requirements;
- 19.4.1.15.** Failure to properly maintain or clean up the Site;
- 19.4.1.16.** Failure to timely indemnify, defend or hold harmless the SCCOE;
- 19.4.1.17.** Any payments due to the SCCOE, including but not limited to payments for failed tests, utilities changes, or permits;
- 19.4.1.18.** Failure to pay Subcontractor(s) or supplier(s) as required by law and by the Contract Documents;
- 19.4.1.19.** Failure to pay any royalty, license or similar fees;
- 19.4.1.20.** Failure of the Contractor to submit on a timely basis all Closeout Documentation in a manner and form that is proper, sufficient, and reasonably acceptable to the SCCOE, and to not cause a delay in the Completion or approval of the Project; or
- 19.4.1.21.** Failure to perform any implementation and/or monitoring required by any SWPPP for the Project and/or the imposition of any penalties or fines imposed therefore against Contractor or SCCOE.
- 19.4.1.22.** Payment is delayed due to an audit inquiry by the State, the County Office of Education, the County, or any entity with jurisdiction related to the Project.

**19.4.1.23.** Contractor is otherwise in breach, default or in substantial violation of any provision of the Contract;

**19.4.2. Reallocation of Withheld Amounts**

**19.4.2.1.** SCCOE may, in its discretion, apply any withheld amount to pay outstanding claims or obligations as defined herein. In so doing, SCCOE shall make such payments on behalf of Contractor. If any payment is so made by SCCOE, then that amount shall be considered a payment made pursuant to the Contract and SCCOE shall not be liable to Contractor for any payment made in good faith. These payments may be made without prior judicial determination of claim or obligation. SCCOE will render Contractor an accounting of funds disbursed on behalf of Contractor.

**19.4.2.2.** If Contractor defaults or neglects to perform the Work in accordance with the Contract Documents or fails to perform any provision thereof, SCCOE may, after **FORTY-EIGHT (48)** hours written notice to the Contractor and, without prejudice to any other remedy, make good such deficiencies. SCCOE shall adjust the total Contract Price by reducing the amount thereof by the cost of making good such deficiencies. If SCCOE deems it inexpedient to correct Work that is damaged, defective, or not done in accordance with Contract provisions, an equitable reduction in the Contract Price (of at least one hundred twenty-five percent (125%) of the estimated reasonable value of the nonconforming Work) shall be made therefor.

**19.4.3. Payment After Cure**

When Contractor cures the grounds for declining approval, payment shall be made for amounts so withheld. No interest shall be paid on any retention or amounts withheld due to the failure of the Contractor to perform in accordance with the terms and conditions of the Contract Documents.

**19.5. Subcontractor Payments**

**19.5.1. Payments to Subcontractors.** No later than seven (7) days after receipt, or pursuant to Business and Professions Code section 7108.5 and Public Contract Code section 7107, the Contractor shall pay to each Subcontractor, out of the amount paid to the Contractor on account of such Subcontractor's portion of the Work, the amount to which said Subcontractor is entitled. Contractor shall, by appropriate agreement with each Subcontractor, require each Subcontractor to make payments to its Sub-subcontractors in a similar manner.

**19.5.2. No Obligation of SCCOE for Subcontractor Payment.** SCCOE shall have no obligation to pay, or to see to the payment of, money to a Subcontractor except as may otherwise be required by law.

**19.5.3. Joint Checks.** SCCOE shall have the right in its sole discretion, if necessary for the protection of the SCCOE, to issue joint checks made payable to the Contractor and Subcontractors and material or equipment suppliers. The joint check payees shall be responsible for the allocation and disbursement of funds included as part of any such joint payment. In no event shall any joint check payment be construed to create any contract between the SCCOE and a Subcontractor of any tier, any obligation from the SCCOE to such Subcontractor, or rights in such Subcontractor against the SCCOE.

**20. COMPLETION OF THE WORK**

**20.1. Completion**

**20.1.1.** The Project may only be accepted by action of the SCCOE.

**20.1.2.** SCCOE shall accept the Project and may have a Notice of Completion recorded when Project Completion has been achieved in accordance with the Contract Documents and to the satisfaction of

SCCOE. For purposes of the payment of Retention, Completion is defined in Public Contract Code section 7107. For purposes of the timely filing of Stop Payment Notices, Completion is defined in California Civil Code section 9200, et seq.

**20.1.3.** Although there is no “substantial completion” for this Project, the SCCOE, at its sole option, may accept the Project and record a Notice of Completion when Project Completion has been completed to the satisfaction of SCCOE, except for minor corrective items, as distinguished from incomplete items. If Contractor fails to complete all minor corrective items within thirty-five (35) days after the date of the SCCOE's acceptance of the Project, SCCOE shall withhold from the final payment one hundred fifty percent (150%) of an estimate of the amount sufficient to complete the corrective items, as determined by SCCOE, until the item(s) are completed.

**20.1.4.** At the end of the thirty-five (35) day period, if there are any items remaining to be corrected, SCCOE may elect to proceed as provided herein related to adjustments to Contract Price, and/or SCCOE's right to perform the Work of the Contractor.

## **20.2. Closeout Procedures**

### **20.2.1. Punch List**

Contractor shall notify the Architect when Contractor considers the Work complete. Upon notification, Architect will prepare a list of minor items to be completed or corrected (“Punch List”). Contractor and/or its Subcontractors shall proceed promptly to complete and correct items on the Punch List. Failure to include an item on Punch List does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

### **20.2.2. Closeout Requirements**

#### **20.2.2.1. Utility Connections**

Buildings shall be connected to water, gas, sewer, and electric services, complete and ready for use. Service connections shall be made and existing services reconnected.

#### **20.2.2.2. As-Built Drawings**

**20.2.2.2.1.** In addition to its requirement to provide monthly As-Built Drawings to the SCCOE, the Contractor shall provide a final set of As-Built Drawings, sometimes referred to as “Record Drawings,” showing all of the Work as actually constructed upon Completion of the Project as indicated in the Specifications.

**20.2.2.2.2.** Contractor is liable and responsible for any and all inaccuracies in the As-Built Drawings, even if inaccuracies become evident at a future date.

**20.2.2.2.3.** Upon Completion of the Work and as a condition precedent to approval of final payment, Contractor shall obtain the Inspector's approval of the final set of As-Built Drawings.

**20.2.2.3. Operations & Maintenance Manuals:** Contractor shall prepare all operation and maintenance manuals and date as indicated in the Specifications.

**20.2.2.4. Closeout Documentation:** Contractor shall provide all Closeout Documentation, which shall include the following, without limitation:

**20.2.2.4.1.** A full set of final As-Built Drawings, as further defined herein.

**20.2.2.4.2.** All Operations & Maintenance Manuals and information, as further defined herein.

**20.2.2.4.3.** All Warranties, as further defined herein.

**20.2.2.4.4.** Verified report(s) for all scope(s) of work (DSA 6-C, Rev 03/22/13, or more recent revision if available).

### **20.3. Final Inspection**

**20.3.1.** Contractor shall comply with Punch List procedures as provided herein, and maintain the presence of a Project Superintendent and Project Manager until the Punch List is complete to ensure proper and timely completion of the Punch List. Under no circumstances shall Contractor demobilize its forces prior to completion of the Punch List. Upon receipt of Contractor's written notice that all of the Punch List items have been fully completed and the Work is ready for final inspection and acceptance, Architect and Project Inspector will inspect the Work and shall submit to Contractor and SCCOE a final inspection report noting the Work, if any, required in order to complete in accordance with the Contract Documents. Absent unusual circumstances, this report shall consist of the Punch List items not yet satisfactorily completed.

**20.3.2.** Upon Contractor's completion of all items on the Punch List and any other uncompleted portions of the Work, the Contractor shall notify the SCCOE and Architect, who shall again inspect such Work. If the Architect finds the Work complete and acceptable under the Contract Documents, the Architect will notify Contractor, who shall then jointly submit to the Architect and the SCCOE its final Application for Payment.

### **20.3.3. Final Inspection Requirements**

**20.3.3.1.** Before calling for final inspection, Contractor shall determine that the following have been performed:

**20.3.3.1.1.** The Work has been completed.

**20.3.3.1.2.** All life safety items are completed and in working order.

**20.3.3.1.3.** Mechanical and electrical Work are complete and tested, fixtures are in place, connected, and ready for tryout.

**20.3.3.1.4.** Electrical circuits scheduled in panels and disconnect switches labeled.

**20.3.3.1.5.** Painting and special finishes complete.

**20.3.3.1.6.** Doors complete with hardware, cleaned of protective film, relieved of sticking or binding, and in working order.

**20.3.3.1.7.** Tops and bottoms of doors sealed.

**20.3.3.1.8.** Floors waxed and polished as specified.

**20.3.3.1.9.** Broken glass replaced and glass cleaned.

**20.3.3.1.10.** Grounds cleared of Contractor's equipment, raked clean of debris, and trash removed from Site.

**20.3.3.1.11.** Work cleaned, free of stains, scratches, and other foreign matter, of damaged and broken material replaced.

**20.3.3.1.12.** Finished and decorative work shall have marks, dirt, and superfluous labels removed.

**20.3.3.1.13.** Final cleanup, as provided herein.

#### **20.4. Costs of Multiple Inspections**

More than two (2) requests of the SCCOE to make a final inspection shall be considered an additional service of SCCOE, Architect, Construction Manager, and/or Project Inspector, and all subsequent costs will be invoiced to Contractor and if funds are available, withheld from remaining payments.

#### **20.5. Partial Occupancy or Use Prior to Completion**

**20.5.1. SCCOE's Rights to Occupancy.** The SCCOE may occupy or use any completed or partially completed portion of the Work at any stage. Neither the SCCOE's Final Acceptance, the making of Final Payment, any provision in Contract Documents, nor the use or occupancy of the Work, in whole or in part, by SCCOE shall constitute acceptance of Work not in accordance with the Contract Documents nor relieve the Contractor or the Contractor's Performance Bond Surety from liability with respect to any warranties or responsibility for faulty or defective Work or materials, equipment and workmanship incorporated therein. The SCCOE and the Contractor shall agree in writing to the responsibilities assigned to each of them for payments, security, maintenance, heat, utilities, damage to the Work, insurance, the period for correction of the Work, and the commencement of warranties required by the Contract Documents. Any dispute as to responsibilities shall be resolved pursuant to the Claims and Disputes provisions herein, with the added provision that during the dispute process, the SCCOE shall have the right to occupy or use any portion of the Work that it needs or desires to use.

**20.5.2. Inspection Prior to Occupancy or Use.** Immediately prior to partial occupancy or use, the SCCOE, the Contractor, and the Architect shall jointly inspect the area to be occupied or portion of the Work to be used in order to determine and record the condition of the Work.

**20.5.3. No Waiver.** Unless otherwise agreed upon, partial or entire occupancy or use of a portion or portions of the Work shall not constitute beneficial occupancy or acceptance of the Work not complying with the requirements of the Contract Documents.

### **21. FINAL PAYMENT AND RETENTION**

#### **21.1. Final Payment**

**21.1.1.** Upon receipt and approval of a valid and final Application for Payment, the Architect will issue a final Certificate of Payment or similar document indicating Architect's agreement that the Project has reached Completion. The SCCOE shall thereupon jointly inspect the Work and either accept the Work as complete or notify the Architect and the Contractor in writing of reasons why the Work has not reached Completion to the satisfaction of the SCCOE.

**21.1.2.** Upon acceptance of the Work of the Contractor as having reached Completion to the satisfaction of the SCCOE (that, absent unusual circumstances, will occur when the Punch List items have been satisfactorily completed), the SCCOE may record a Notice of Completion with the County Recorder, and the Contractor shall, upon receipt of final payment from the SCCOE, pay all the amount(s) due to its Subcontractors.

#### **21.2. Prerequisites for Final Payment**



The following conditions must be fulfilled prior to Final Payment:

**21.2.1.** A full and final waiver or release of all stop notices and stop payment notices in connection with the Work shall be submitted by Contractor, including a release of stop notice or stop payment notice in recordable form, together with (to the extent permitted by law) a copy of the full and final release of all stop notice or stop payment notice rights.

**21.2.2.** A duly completed and executed conditional waiver and release upon final payment compliant with Civil Code section 8136 from each subcontractor of any tier and supplier to be paid from the current progress payment;

**21.2.3.** A duly completed and executed unconditional waiver and release upon final payment compliant with Civil Code section 8138 from each subcontractor of any tier and supplier that was paid from the previous progress payment; and

**21.2.4.** Contractor shall have made all corrections to the Work that are required to remedy any defects therein, to obtain compliance with the Contract Documents or any requirements of applicable codes and ordinances, or to fulfill any of the orders or directions of SCCOE required under the Contract Documents.

**21.2.5.** Each Subcontractor shall have delivered to the Contractor all written guarantees, warranties, applications, and bonds required by the Contract Documents for its portion of the Work.

**21.2.6.** Contractor must have completed all requirements set forth under "Closeout Procedures," including, without limitation, submission of an approved set of complete Record Drawings.

**21.2.7.** Architect shall have issued its written approval that final payment can be made.

**21.2.8.** Contractor shall have delivered to the SCCOE all manuals and materials required by the Contract Documents.

**21.2.9.** Contractor shall have completed final clean up as provided herein.

### **21.3. Retention**

**21.3.1.** The retention, less any amounts disputed by the SCCOE or that the SCCOE has the right to withhold pursuant to provisions herein, shall be paid:

**21.3.1.1.** After approval of the SCCOE by the Architect's Certificate of Payment;

**21.3.1.2.** After the satisfaction of the conditions set forth herein;

**21.3.1.3.** Within sixty (60) days after Completion;

**21.3.1.4.** No earlier than thirty-five (35) days of the recording of the Notice of Completion by SCCOE, if a Notice of Completion is recorded by the SCCOE.

**21.3.2.** No interest shall be paid on any retention, or on any amounts withheld due to a failure of the Contractor to perform, in accordance with the terms and conditions of the Contract Documents, except as provided to the contrary in any Escrow Agreement between the SCCOE and the Contractor pursuant to Public Contract Code section 22300.

### **21.4. Substitution of Securities**

The SCCOE will permit the substitution of securities in accordance with the provisions of Public Contract Code section 22300.

**22. UNCOVERING OF WORK**

If a portion of the Work is covered without Inspector or Architect approval or not in compliance with the Contract Documents, it must, if required in writing by the SCCOE, the Project Inspector, or the Architect, be uncovered for the Project Inspector's or the Architect's observation and be replaced at the Contractor's expense without change in the Contract Price or Contract Time.

**23. NONCONFORMING WORK AND CORRECTION OF WORK**

**23.1. Nonconforming Work**

**23.1.1.** Contractor shall promptly remove from Premises all Work identified by SCCOE as failing to conform to the Contract Documents whether incorporated or not. Contractor shall promptly replace and re-execute its own Work to comply with the Contract Documents without additional expense to the SCCOE and shall bear the expense of making good all work of other contractors destroyed or damaged by any removal or replacement pursuant hereto and/or any delays to the SCCOE or other Contractors caused thereby.

**23.1.2.** If Contractor does not remove Work that SCCOE has identified as failing to conform to the Contract Documents within a reasonable time, not to exceed **FORTY-EIGHT (48)** hours, SCCOE may remove it and may store any material at Contractor's expense. If Contractor does not pay expense(s) of that removal within ten (10) days' time thereafter, SCCOE may, upon ten (10) days' written notice, sell any material at auction or at private sale and shall deduct all costs and expenses incurred by the SCCOE and/or SCCOE may withhold those amounts from payment(s) to Contractor.

**23.2. Correction of Work**

**23.2.1. Correction of Rejected Work.** Pursuant to the notice provisions herein, the Contractor shall promptly correct the Work rejected by the SCCOE, the Architect, or the Project Inspector as failing to conform to the requirements of the Contract Documents, whether observed before or after Completion and whether or not fabricated, installed, or completed. The Contractor shall bear costs of correcting the rejected Work, including additional testing, inspections, and compensation for the Inspector's or the Architect's services and expenses made necessary thereby.

**23.2.2. One-Year Warranty Corrections.** If, within one (1) year after the date of Completion of the Work or a designated portion thereof, or after the date for commencement of warranties established hereunder, or by the terms of an applicable special warranty required by the Contract Documents, any of the Work is found to be not in accordance with the requirements of the Contract Documents, the Contractor shall correct it promptly after receipt of written notice from the SCCOE to do so. This period of one (1) year shall be extended with respect to portions of the Work first performed after Completion by the period of time between Completion and the actual performance of the Work. This obligation hereunder shall survive acceptance of the Work under the Contract and termination of the Contract. The SCCOE shall give such notice promptly after discovery of the condition.

**23.3. SCCOE's Right to Perform Work**

**23.3.1.** If the Contractor should neglect to prosecute the Work properly or fail to perform any provisions of this Contract, the SCCOE, after **FORTY-EIGHT (48)** hours written notice to the Contractor, may, without prejudice to any other remedy it may have, make good such deficiencies and may deduct the cost thereof from the payment then or thereafter due the Contractor.

**23.3.2.** If it is found at any time, before or after Completion of the Work, that Contractor has varied from the Drawings and/or Specifications, including, but not limited to, variation in material, quality, form, or finish, or in the amount or value of the materials and labor used, SCCOE may require at its option:

**23.3.2.1.** That all such improper Work be removed, remade or replaced, and all work disturbed by these changes be made good by Contractor at no additional cost to the SCCOE;

**23.3.2.2.** That the SCCOE deduct from any amount due Contractor the sum of money equivalent to the difference in value between the work performed and that called for by the Drawings and Specifications; or

**23.3.2.3.** That the SCCOE exercise any other remedy it may have at law or under the Contract Documents, including but not limited to the SCCOE hiring its own forces or another contractor to replace the Contractor's nonconforming Work, in which case the SCCOE shall either issue a deductive Change Order, a Construction Change Directive, or invoice the Contractor for the cost of that work. Contractor shall pay any invoices within thirty (30) days of receipt of same or SCCOE may withhold those amounts from payment(s) to Contractor.

## **24. TERMINATION AND SUSPENSION**

### **24.1. SCCOE's Right to Terminate Contractor for Cause**

**24.1.1. Grounds for Termination.** The SCCOE, in its sole discretion, may terminate the Contract and/or terminate the Contractor's right to perform the work of the Contract based upon the following:

**24.1.1.1.** Contractor refuses or fails to execute the Work or any separable part thereof with sufficient diligence as will ensure its completion within the time specified or any extension thereof, or

**24.1.1.2.** Contractor fails to complete said Work within the time specified or any extension thereof, or

**24.1.1.3.** Contractor persistently fails or refused to perform Work or provide material of sufficient quality as to be in compliance with Contract Documents; or

**24.1.1.4.** Contractor files a petition for relief as a debtor, or a petition is filed against the Contractor without its consent, and the petition not dismissed within sixty (60) days; or

**24.1.1.5.** Contractor makes a general assignment for the benefit of its creditors, or a receiver is appointed on account of its insolvency; or

**24.1.1.6.** Contractor persistently or repeatedly refuses fails, except in cases for which extension of time is provided, to supply enough properly skilled workers or proper materials to complete the Work in the time specified; or

**24.1.1.7.** Contractor fails to make prompt payment to Subcontractors, or for material, or for labor; or

**24.1.1.8.** Contractor persistently disregards laws, or ordinances, or instructions of SCCOE; or

**24.1.1.9.** Contractor fails to supply labor, including that of Subcontractors, that can work in harmony with all other elements of labor employed or to be employed on the Work; or

**24.1.1.10.** Contractor or its Subcontractor(s) is/are otherwise in breach, default, or in substantial violation of any provision of this Contract.

### **24.1.2. Notification of Termination**

**24.1.2.1.** Upon the occurrence at SCCOE's sole determination of any of the above conditions, SCCOE may, without prejudice to any other right or remedy, serve written notice upon Contractor

and its Surety of SCCOE's termination of this Contract and/or the Contractor's right to perform the work of the Contract. This notice will contain the reasons for termination. Unless, within three (3) days after the service of the notice, any and all condition(s) shall cease, and any and all violation(s) shall cease, or arrangement satisfactory to SCCOE for the correction of the condition(s) and/or violation(s) be made, this Contract and/or the Contractor's right to perform the Work shall cease and terminate. Upon termination, Contractor shall not be entitled to receive any further payment until the entire Work is finished.

**24.1.2.2.** Upon termination, SCCOE may immediately serve written notice of tender upon Surety whereby Surety shall have the right to take over and perform this Contract only if Surety:

**24.1.2.2.1.** Within three (3) days after service upon it of the notice of tender, gives SCCOE written notice of Surety's intention to take over and perform this Contract; and

**24.1.2.2.2.** Commences performance of the Contract within three (3) days from date of serving of its notice to SCCOE.

**24.1.2.3.** If Surety fails to notify SCCOE or begin performance as indicated herein, SCCOE may take over the Work and execute the Work to completion by any method it may deem advisable at the expense of Contractor and/or its Surety. Contractor and/or its Surety shall be liable to SCCOE for any excess cost or other damages the SCCOE incurs thereby. Time is of the essence in the Contract. If the SCCOE takes over the Work as herein provided, SCCOE may, without liability for so doing, take possession of and utilize in completing the Work such materials, appliances, plan, and other property belonging to Contractor as may be on the Site of the Work, in bonded storage, or previously paid for.

#### **24.1.3. Effect of Termination**

**24.1.3.1.** Contractor shall, only if ordered to do so by the SCCOE, immediately remove from the Site all or any materials and personal property belonging to Contractor that have not been incorporated in the construction of the Work, or which are not in place in the Work. SCCOE retains the right, but not the obligation, to keep and use any materials and personal property belonging to Contractor that have not been incorporated in the construction of the Work, or which are not in place in the Work. Contractor and its Surety shall be liable upon the performance bond for all damages caused the SCCOE by reason of the Contractor's failure to complete the Contract.

**24.1.3.2.** In the event that the SCCOE shall perform any portion of, or the whole of the Work, pursuant to the provisions of the General Conditions, the SCCOE shall not be liable nor account to the Contractor in any way for the time within which, or the manner in which, the Work is performed by the SCCOE or for any changes the SCCOE may make in the Work or for the money expended by the SCCOE in satisfying claims and/or suits and/or other obligations in connection with the Work.

**24.1.3.3.** In the event that the Contract is terminated for any reason, no allowances or compensation will be granted for the loss of any anticipated profit by the Contractor or any impact or impairment of Contractor's bonding capacity.

**24.1.3.4.** If the expense to the SCCOE to finish the Work exceeds the unpaid Contract Price, Contractor and Surety shall pay difference to SCCOE within twenty-one (21) days of SCCOE's request.

**24.1.3.5.** SCCOE shall have the right (but shall have no obligation) to assume and/or assign to a general contractor or construction manager or other third party who is qualified and has sufficient resources to complete the Work, the rights of the Contractor under its subcontracts with any or all Subcontractors. In the event of an assumption or assignment by the SCCOE, no Subcontractor shall have any claim against the SCCOE or third party for Work performed by Subcontractor or other matters arising prior to termination of the Contract. The SCCOE or any third party, as the case may

be, shall be liable only for obligations to the Subcontractor arising after assumption or assignment. Should the SCCOE so elect, the Contractor shall execute and deliver all documents and take all steps, including the legal assignment of its contractual rights, as the SCCOE may require, for the purpose of fully vesting in the SCCOE the rights and benefits of it Subcontractor under Subcontracts or other obligations or commitments. All payments due the Contractor hereunder shall be subject to a right of offset by the SCCOE for expenses and damages suffered by the SCCOE as a result of any default, acts, or omissions of the Contractor. Contractor must include this assignment provision in all of its contracts with its Subcontractors.

**24.1.3.6.** The foregoing provisions are in addition to and not in limitation of any other rights or remedies available to SCCOE.

## **24.2. Emergency Termination of Public Contracts Act of 1949**

**24.2.1.** The Contract is subject to termination as provided by sections 4410 and 4411 of the Government Code of the State of California, being a portion of the Emergency Termination of Public Contracts Act of 1949.

**24.2.1.1.** Section 4410 of the Government Code states:

In the event a national emergency occurs, and public work, being performed by contract, is stopped, directly or indirectly, because of the freezing or diversion of materials, equipment or labor, as the result of an order or a proclamation of the President of the United States, or of an order of any federal authority, and the circumstances or conditions are such that it is impracticable within a reasonable time to proceed with a substantial portion of the work, then the public agency and the contractor may, by written agreement, terminate said contract.

**24.2.1.2.** Section 4411 of the Government Code states:

Such an agreement shall include the terms and conditions of the termination of the contract and provision for the payment of compensation or money, if any, which either party shall pay to the other or any other person, under the facts and circumstances in the case.

**24.2.2.** Compensation to the Contractor shall be determined at the sole discretion of SCCOE on the basis of the reasonable value of the Work done, including preparatory work. As an exception to the foregoing and at the SCCOE's discretion, in the case of any fully completed separate item or portion of the Work for which there is a separate previously submitted unit price or item on the accepted Schedule of Values, that price shall control. SCCOE, in its sole discretion, may adopt the Contract Price as the reasonable value of the Work performed or any portion thereof.

## **24.3. Termination of Contractor for Convenience**

**24.3.1.** SCCOE in its sole discretion may terminate the Contract upon three (3) days written notice to the Contractor. Under a termination for convenience, the SCCOE retains the right to all the options available to the SCCOE if there is a termination for cause. In case of a termination for convenience, Contractor shall have no claims against the SCCOE except:

**24.3.1.1.** The actual cost for labor, materials, and services performed that is unpaid and can be documented through timesheets, invoices, receipts, or otherwise, and

**24.3.1.2.** Five percent (5%) of the total cost of work performed as of the date of termination, or five percent (5%) of the value of the Work yet to be performed, whichever is less. This five percent (5%) amount shall be full compensation for all Contractor's and its Subcontractor(s)' mobilization

and/or demobilization costs and any anticipated loss profits resulting from termination of the Contractor for convenience.

#### **24.4. Suspension of Work**

**24.4.1.** SCCOE may, without cause, order Contractor in writing to suspend, delay or interrupt the Project in whole or in part for such period of time as SCCOE may determine. When the SCCOE resumes the Project, the Parties will attempt to negotiate an adjustment in the Contract Price for increases or decreases in the cost of performance of the Project caused by suspense, delay or interruption. If the parties cannot agree on an adjusted Contract Price, the SCCOE may terminate the Contract as permitted herein.

**24.4.2.** In the event that the SCCOE exercises this option, the SCCOE shall pay for any and all Work and materials completed or delivered onto the Site for which value is received, and the value of any and all Work then in progress and orders actually placed which cannot be canceled up to the date of notice of termination. The value of work and materials paid for shall include a factor of six percent (6%) for the Contractor's overhead and profit and there shall be no other costs or expenses paid to Contractor. All work, materials and orders paid for pursuant to this provision shall become the property of the SCCOE.

#### **24.5. Scope Reduction**

In cases of suspension, partial or complete termination, or at the discretion of the SCCOE, the SCCOE reserves the right to unilaterally approve a deductive Change Order to reduce scope of work or perform work with other forces or its own forces.

### **25. DISPUTES AND CLAIMS**

#### **25.1. Performance during Dispute and Claim Resolution Process.**

The Contractor shall diligently proceed with Work on the Project at the same time that Disputes and Claims are addressed under this Article. It is the intent of SCCOE to resolve Disputes with the Contractor as close to the events giving rise to the Disputes as possible, and to avoid stale or late Claims and the late documenting of Claims. Contractor's failure to diligently proceed in accordance with the SCCOE's instructions or the Contract terms will be considered a material breach of this Agreement and a waiver of Contractor's rights under this Agreement.

#### **25.2. Waiver.**

If Contractor fails to timely submit any written notices required under the terms of the Contract or in this Disputes and Claims section, Contractor waives and releases its rights regarding further review of its Dispute or Claim, unless Contractor and SCCOE mutually agree in writing to other time limits.

#### **25.3. Intention.**

The Dispute and Claims Resolution Process required herein are intended to provide a concise mechanism for resolving Disputes and Claims as they arise during the Project, while requiring accurate documentation related to contested issues as to those Disputes and Claims that are not contemporaneously resolved.

#### **25.4. Exclusive Remedy.**

Compliance with the notice provisions of the Contract as well as the claim submission procedures described in this Disputes and Claims section is an express condition precedent to Contractor's right to commence litigation, file a claim under the California Government Code, or commence any other legal action. The Contractor cannot bring assert or bring any Claim in any Government Code claim or

subsequent legal action until that Claim has gone through the Dispute and Claims Resolution Process herein. The SCCOE hereby exercises the power conferred upon it by Government Code Sections 930.2 and 930.4 to augment claims presentation procedures and create its own Dispute and Claims Resolution Process as an exclusive remedy as indicated in this Disputes and Claims section.

#### **25.5. Other Provisions.**

If portions of the Contract, other than this Disputes and Claims section establish a specific process regarding a specific subject, then that process shall govern and control the resolutions of any disagreements thereunder. Otherwise, the provisions in this Disputes and Claims section shall control the resolution of all Disputes and Claims.

#### **25.6. Subcontractors.**

Contractor is responsible for providing this Disputes and Claims section to its Subcontractors and for ensuring that all Subcontractors or others who may assert Claims by and through Subcontractors and/or the Contractor are informed of the Dispute and Claims resolution process in this Disputes and Claims section. No Claim submitted by any party that fails to follow the provisions of this Disputes and Claims section will be considered. Contractor shall indemnify, keep and hold harmless the SCCOE and its consultants, against all suits, claims, damages, losses, and expenses, including but not limited to attorney's fees, caused by, arising out of, resulting from, or incidental to, the failure to provide this Disputes and Claims section to its Subcontractors or others who may assert Claims by and through Subcontractors and/or the Contractor.

#### **25.7. Dispute and Claim Resolution Process**

**25.7.1. Dispute:** A Dispute is a written demand by Contractor or by Subcontractor(s) or others who make a demand or request by and through Contractor during performance of the Work for an adjustment of the Contract Time, Contract Price, interpretation of the Contract Documents, or other relief with respect to the Contract Documents for which Contractor has previously provided written notice to the SCCOE pursuant to the terms of the Contract which remain unresolved. A PCO may be a Dispute, but the Parties agree that a PCO shall only be a Dispute if:

**25.7.1.1.** The SCCOE states in writing that it disagrees with the terms of a PCO and directs the Contractor to utilize the Dispute Resolution Process, or

**25.7.1.2.** The SCCOE rejects in whole or in part a PCO and the Contractor states in writing that it is utilizing the Dispute Resolution Process for the portion of the PCO that the SCCOE rejected.

**25.7.2. Claim:** A Claim is a Dispute that remains unresolved after conclusion of the Dispute Resolution Process identified below. Individual unresolved Disputes may be aggregated into one or more Claim(s).

#### **25.7.3. Dispute Resolution Process (Not for Claims)**

##### **25.7.3.1. Identifying, Presenting and Documenting a Dispute**

**25.7.3.1.1.** Every Dispute shall be stated with specificity in writing and signed by Contractor under penalty of perjury and presented to the SCCOE within ten (10) calendar days from the date Contractor discovers or reasonably should discover, that an act, error or omission of SCCOE, its agents or employees, or action, condition or other situation has occurred that may entitle Contractor to an adjustment of the Contract Price and/or Contract Time. Contractor shall provide this writing even if Contractor has not yet been damaged, delayed, or incurred extra cost when Contractor discovers, or reasonably should discover, the act, error, omission, action, condition or situation giving rise to the incidents giving rise to the Dispute. The writing shall:

**25.7.3.1.1.1.** Identify all of the issues, events, conditions, circumstances and/or causes giving rise to the Dispute;

**25.7.3.1.1.2.** Identify all pertinent dates and/or durations and all actual and/or anticipated effects on the Contract Price, milestones and/or Contract Time adjustments; and

**25.7.3.1.1.3.** Identify in detail line-item costs if the Dispute seeks money.

**25.7.3.1.1.4.** If the Dispute involves extra work, a detailed cost breakdown of the amounts the Contractor is seeking, including actual cost records (including without limitation, payroll records, material and rental invoices and the like) demonstrating that those costs have actually been incurred. To the extent costs have not yet been incurred at the time the Dispute is submitted, actual cost records must be submitted on a current basis not less than once a week during any periods costs are incurred. A cost record will be considered current if submitted within seven (7) days of the date the cost reflected in the record is incurred. At the request of SCCOE, extra costs may be subject to further verification procedures (such as having an inspector verify the performance of alleged extra work on a daily basis).

**25.7.3.1.1.5.** If the Dispute involves an error or omission in the Contract Documents:

**25.7.3.1.1.5.1.** An affirmative representation under penalty of perjury by Contractor and any affected Subcontractors and suppliers that the error or omission was not discovered prior to submitting a proposal for the Work, and

**25.7.3.1.1.5.2.** A detailed statement demonstrating that the error or omission reasonably should not have been discovered, by Contractor, its Subcontractors and suppliers, prior to submitting a proposal for the Work.

**25.7.3.1.1.6.** Contractor shall not be entitled to compensation for escalation of materials costs unless Contractor demonstrates to the satisfaction of the SCCOE that such cost escalation is the result of unusual, unforeseeable market conditions, not the fault of the Contractor, and were not reasonably foreseeable at the time of the award of the Contract. Contractor shall provide evidence to SCCOE of the costs included in the Contract for those materials and that those costs were reasonable at the time and that Contractor timely ordered the materials at issue.

**25.7.3.1.2.** The writing shall be accompanied by all documents substantiating Contractor's position regarding the Dispute. A Dispute that asserts an effect on any schedule milestones and/or Contract Time shall include all pertinent scheduling data demonstrating the impact(s) on the critical path(s), milestone(s) and/or Contract Time.

**25.7.3.1.3.** Contractor acknowledges that its failure, for any reason, to give written notice (with supporting documentation to permit the SCCOE's review and evaluation) within the time frame required by the provisions in this Disputes and Claims section, or its actual or constructive knowledge of any instruction, request, Drawings, Specifications, action, condition, omission, default or other situation for which the Contractor believes there should an adjustment of the Contract Price or Contract Time shall be deemed Contractor's waiver, release, discharge and relinquishment of any right to assert, request, or demand any entitlement to an adjustment of the Contract Time or the Contract Price on account of any such instruction, request, Drawings, Specifications, action, condition, omission, default or other situation. Contractor further acknowledged that strict compliance with the requirements of the provisions in this Disputes and Claims section is an express condition precedent to Contractor's right to arbitrate or litigate a



claim. Contractor specifically agrees to assert no demands or claims in arbitration or litigation unless there has been strict compliance with the provisions in this Disputes and Claims section.

**25.7.3.1.4. Architect's and/or Construction Manager's ("AE/CM") Initial Decision.** The SCCOE's AE/CM shall issue a written decision regarding the Dispute to the Contractor within ten (10) calendar days of receipt of the written Dispute from the Contractor.

**25.7.3.2. Meet and Confer**

**25.7.3.2.1. Where There Is No Agreement:** If there is no agreement between Contractor and the AE/CM on a Contractor's Dispute, then within ten (10) calendar days of the date of the SCCOE's written decision in response to Contractor's Dispute or PCO, Contractor shall give written notice of its demand for a meet and confer meeting with SCCOE staff. A meet and confer meeting with SCCOE staff shall be a condition precedent to Contractor seeking any further relief, including a demand for review as indicated below, in connection with the SCCOE's rejection.

**25.7.3.2.2. Where There Is Partial Agreement:** If Contractor and the AE/CM partially agree on a Contractor's Dispute but do not reach complete agreement, then the AE/CM shall issue a written decision or prepare a Change Order, if applicable, for the issues and/or amounts agreed to. For those issues not agreed to, Contractor shall give written notice of its demand for a meet and confer meeting with SCCOE staff. A meet and confer meeting with SCCOE staff shall be a condition precedent to Contractor seeking any further relief, including a demand for review as indicated below, in connection with the SCCOE's rejection.

**25.7.3.2.3.** SCCOE and Contractor shall schedule the meet and confer meeting as soon as reasonably possible after Contractor's written notice of its demand for a meet and confer meeting.

**25.7.3.3. Contractor's Demand for Review of Dispute**

**25.7.3.3.1.** Contractor shall submit a written demand for review to the SCCOE with copy to the AE/CM, within ten (10) calendar days of the meet and confer meeting. The written demand for review shall include copies of all documentation the Contractor intends to rely upon in substantiating Contractor's position regarding the Dispute, including any supplementary documentation the Contractor deems appropriate for the SCCOE's consideration.

**25.7.3.3.1.1. SCCOE's Written Decision.** The SCCOE will review the Dispute and issue a written decision to Contractor within thirty (30) calendar days from the date the demand for review and supporting documentation are received by the SCCOE. The SCCOE has the option to meet with Contractor, or with Contractor and any other party, before issuing a decision.

**25.7.3.3.1.2.** If no decision is issued within thirty (30) days after the demand for review, the SCCOE will be deemed to have rejected Contractor's Dispute in its entirety, and Contractor shall proceed with the Claim Resolution Process below.

**25.7.3.3.1.3.** If the SCCOE's decision completely resolves the Dispute, the SCCOE will prepare and process a Change Order, if applicable, or proceed accordingly.

**25.7.3.3.1.4.** If the SCCOE rejects the Contractor's Dispute in whole or in part or does not issue a timely written response, and if Contractor ever intends to seek relief regarding the unresolved issues of the Dispute, then Contractor shall proceed with the Claim Resolution Process below.

**25.7.3.1.5.** Contractor's costs incurred in seeking relief for Disputes and Claims are not recoverable from SCCOE.

**25.7.4. Claim Resolution Process.**

**25.7.4.1.** If Contractor's Dispute has not been resolved during the Dispute Resolution Process, the Contractor shall submit within thirty (30) days of the SCCOE's written decision, a Claim with the required documentation set forth below for SCCOE's consideration.

**25.7.4.2.** Contractor shall furnish three (3) certified copies of the required Claim documentation. The Claim documentation shall be complete when furnished. The evaluation of Contractor's Claim will be based on SCCOE records, and the Claim document furnished by Contractor.

**25.7.4.3.** Contractor's Claim documentation shall conform to generally accepted accounting principles and shall be in the following format:

**25.7.4.3.1.** General Introduction

**25.7.4.3.2.** General Background Discussion

**25.7.4.3.3.** Index of Issues (listed numerically)

**25.7.4.3.4.** For each issue, provide the following information and begin each issue on a new page:

**25.7.4.3.4.1.** Background

**25.7.4.3.4.2.** Chronology

**25.7.4.3.4.3.** Contractor's position including all reason(s) for SCCOE's potential liability

**25.7.4.3.4.4.** Supporting documentation of merit or entitlement

**25.7.4.3.4.5.** Supporting documentation of damages

**25.7.4.3.5.** All critical path method schedules, both as-planned, monthly updates, schedule revisions, and as-build along with the computer disks of all schedules related to the Claim.

**25.7.4.3.6.** Productivity exhibits (if appropriate)

**25.7.4.3.7.** Summary of Damages for each issue

**25.7.4.4.** Supporting documentation of merit or entitlement for each issue shall be cited by reference, photocopies, or explanation. Supporting documentation may include but shall not be limited to the Contract Documents; correspondence; conference notes; shop drawings and submittals; shop drawing logs; survey books; inspection reports; delivery schedules; test reports; daily reports; subcontracts; fragmentary CPM schedules or time impact analyses; photographs; technical reports; requests for information; field instructions; and all other related records necessary to support the Contractor's Claim.

**25.7.4.5.** Supporting documentation of damages for each issue shall be cited, photocopied, or explained. Supporting documentation may include, but shall not be limited to, any or all documents related to the preparation and submission of the proposal; certified, detailed labor records, including labor distribution reports; material and equipment procurement records; construction equipment ownership costs records or rental records; job cost reports; Subcontractor or vendor files and cost

records; service cost records; purchase orders; invoices; Project as-planned and as-built cost records; general ledger records; variance reports; accounting adjustment records; and any other accounting materials necessary to support the Contractor's Claim.

**25.7.4.6.** Contractor shall include in its Claim documents all issue items and information that Contractor contends are part of its Claim. Issues not included in the Claim documents shall not be considered.

**25.7.4.7.** Each copy of the Claim documentation shall be certified by a responsible officer of the Contractor in accordance with the requirements of the Contract Documents.

**25.7.4.8.** The SCCOE may withhold from a progress payment and/or the final payment an amount not to exceed 150 percent of the disputed amount. The SCCOE may, but is not obligated to, notify the Surety and request the Surety's assistance in resolving the controversy.

**25.7.4.9. SCCOE's Written Decision.** The SCCOE will render a written decision to the Contractor relative to the Claim. The SCCOE's written decision shall be final and binding on the party(ies), unless Contractor requests mediation pursuant to this subsection.

**25.7.4.10. Mediation.** Within thirty (30) days after the SCCOE renders its written decision, the Contractor may request that the parties submit the Claim to mediation. Absent a request for mediation, the SCCOE's written decision is final and binding on the parties.

**25.7.4.11. Litigation.** If, after a mediation as indicated above, the parties have not resolved the Claim, the receiving party's decision made pursuant to mediation will be conclusive and binding regarding the Dispute unless the submitting party commences an action in a court of competent jurisdiction to contest such decision within ninety (90) days following the conclusion of such mediation or one (1) year following the accrual of the cause of action, whichever is later.

**25.7.5.** The SCCOE shall be entitled to remedy any false claims, as defined in California Government Code section 12650 *et seq.*, made to the SCCOE by the Contractor or any Subcontractor under the standards set forth in Government Code section 12650 *et seq.* Any Contractor or Subcontractor who submits a false claim shall be liable to the SCCOE for three times the amount of damages that the SCCOE sustains because of the false claim. A Contractor or Subcontractor who submits a false claim shall also be liable to the SCCOE for (a) the costs, including attorney fees, of a civil action brought to recover any of those penalties or damages, and (b) a civil penalty of up to \$11,000 for each false claim.

#### **25.8. Documentation of Resolution.**

If a Claim is resolved, the SCCOE shall determine if that resolution shall be documented in an Agreement and Release of Any and All Claims form or other document, as appropriate.

#### **25.9. Dispute and Claim Resolution Process – Non-Applicability.**

The procedures and provisions in this Disputes and Claims section shall not apply to:

**25.9.1.** SCCOE's determination of what Work is or will be constructed, or whether the Work complies with the Contract Documents for purposes of accepting the Work;

**25.9.2.** SCCOE's rights and obligations as a public entity, such as, but without limitation, the revocation of pre-qualified or qualified status, barring a contractor from SCCOE contracts, the imposition of penalties or forfeitures prescribed by statute or regulation; provided, however, that penalties imposed against a public entity by statutes such as Section 7107 of the Public Contract Code, shall be subject to the mandatory dispute resolution provisions of this Disputes and Claims section and the Contract;

- 25.9.3. Personal injury, wrongful death or property damage claims;
- 25.9.4. Latent defect or breach of warranty or guarantee to repair;
- 25.9.5. Stop notices or stop payment notices; or
- 25.9.6. Any other SCCOE rights as set forth herein.

## **26. LABOR, WAGE & HOUR, APPRENTICE AND RELATED PROVISIONS**

### **26.1. Contractor & Subcontractor Registration**

**26.1.1.** Contractor shall comply with the registration and compliance monitoring provisions of Labor Code section 1771.4, including furnishing its CPRs to the Labor Commissioner of California and complying with any applicable enforcement by the Department of Industrial Relations. Labor Code section 1771.1(a) states the following:

“A contractor or subcontractor shall not be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, as defined in this chapter, unless currently registered and qualified to perform public work pursuant to 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.”

**26.1.2.** Contractor acknowledges that, for purposes of Labor Code section 1725.5, all or some of the Work is a public work to which Labor Code section 1771 applies. Contractor shall comply with Labor Code section 1725.5, including without limitation the registration requirements. Additionally, all Contractor's Subcontractors shall comply with Labor Code section 1725.5 to be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code or engage in the performance of the Contract. Contractor represents that all of its Subcontractors are registered pursuant to Labor Code section 1725.5.

**26.1.3.** The Project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. Contractor shall post job site notices, as prescribed by regulation. Contractor shall comply with all requirements of Labor Code section 1771.4, except the requirements that are exempted by the Labor Commissioner for the Project.

### **26.2. Wage Rates, Travel and Subsistence**

**26.2.1.** Pursuant to the provisions of article 2 (commencing at section 1770), chapter 1, part 7, division 2, of the Labor Code of California, the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work in the locality in which this public work is to be performed for each craft, classification, or type of worker needed to execute this Contract are on file at the SCCOE's principal office and copies will be made available to any interested party on request. Contractor shall obtain and post a copy of these wage rates at the job site.

**26.2.2.** Holiday and overtime work, when permitted by law, shall be paid for at a rate of at least one and one-half times the above specified rate of per diem wages, unless otherwise specified. The holidays upon which those rates shall be paid need not be specified by the SCCOE but shall be all holidays recognized in the applicable collective bargaining agreement. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code.

**26.2.3.** Contractor shall pay and shall cause to be paid each worker engaged in Work on the Project not less than the general prevailing rate of per diem wages determined by the Director of the Department of Industrial Relations ("DIR") ("Director"), regardless of any contractual relationship which may be alleged to exist between Contractor or any Subcontractor and such workers.

**26.2.4.** If during the period this bid is required to remain open, the Director determines that there has been a change in any prevailing rate of per diem wages in the locality in which the Work under the Contract is to be performed, such change shall not alter the wage rates in the Notice to Bidders or the Contract subsequently awarded.

**26.2.5.** Pursuant to Labor Code section 1775, Contractor shall, as a penalty to SCCOE, forfeit the statutory amount, (currently not to exceed two hundred dollars (\$200) for each calendar day, or portion thereof), for each worker paid less than the prevailing rates, as determined by the SCCOE and/or the Director, for the work or craft in which that worker is employed for any public work done under Contract by Contractor or by any Subcontractor under it.

**26.2.5.1.** The amount of the penalty shall not be less than forty dollars (\$40) for each calendar day, or portion thereof, unless the failure of Contractor was a good faith mistake and, if so, the error was promptly and voluntarily corrected when brought to the attention of Contractor.

**26.2.5.2.** The amount of the penalty shall not be less than eighty dollars (\$80) for each calendar day or portion thereof, if Contractor has been assessed penalties within the previous three (3) years for failing to meet Contractor's prevailing wage obligations on a separate contract, unless those penalties were subsequently withdrawn or overturned.

**26.2.5.3.** The amount of the penalty may not be less than one hundred twenty dollars (\$120) for each calendar day, or portion thereof, if the Labor Commissioner determines the Contractor willfully violated Labor Code section 1775.

**26.2.5.4.** The difference between such prevailing wage rates and the amount paid to each worker for each calendar day or portion thereof for which each worker was paid less than the prevailing wage rate, shall be paid to each worker by Contractor.

**26.2.6.** Any worker employed to perform Work on the Project, which Work is not covered by any classification listed in the general prevailing wage rate of per diem wages determined by the Director, shall be paid not less than the minimum rate of wages specified therein for the classification which most nearly corresponds to Work to be performed by him, and such minimum wage rate shall be retroactive to time of initial employment of such person in such classification.

**26.2.7.** Pursuant to Labor Code section 1773.1, per diem wages are deemed to include employer payments for health and welfare, pension, vacation, travel time, subsistence pay, and apprenticeship or other training programs authorized by section 3093, and similar purposes.

**26.2.8.** Contractor shall post at appropriate conspicuous points on the Site of Project, a schedule showing all determined minimum wage rates and all authorized deductions, if any, from unpaid wages actually earned. In addition, Contractor shall post a sign-in log for all workers and visitors to the Site, a list of all subcontractors of any tier on the Site, and the required Equal Employment Opportunity poster(s).

### **26.3. Hours of Work**

**26.3.1.** As provided in article 3 (commencing at section 1810), chapter 1, part 7, division 2, of the Labor Code, eight (8) hours of labor shall constitute a legal days work. The time of service of any worker employed at any time by Contractor or by any Subcontractor on any subcontract under this Contract upon the Work or upon any part of the Work contemplated by this Contract shall be limited and restricted by

Contractor to eight (8) hours per day, and forty (40) hours during any one week, except as hereinafter provided. Notwithstanding the provisions hereinabove set forth, Work performed by employees of Contractor in excess of eight (8) hours per day and forty (40) hours during any one week, shall be permitted upon this public work upon compensation for all hours worked in excess of eight (8) hours per day at not less than one and one-half times the basic rate of pay.

**26.3.2.** Contractor shall keep and shall cause each Subcontractor to keep an accurate record showing the name of and actual hours worked each calendar day and each calendar week by each worker employed by Contractor in connection with the Work or any part of the Work contemplated by this Contract. The record shall be kept open at all reasonable hours to the inspection of SCCOE and to the Division of Labor Standards Enforcement of the DIR.

**26.3.3.** Pursuant to Labor Code section 1813, Contractor shall as a penalty to the SCCOE forfeit the statutory amount (believed by the SCCOE to be currently twenty five dollars (\$25)) 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 (8) hours in any one calendar day and forty (40) hours in any one calendar week in violation of the provisions of article 3 (commencing at section 1810), chapter 1, part 7, division 2, of the Labor Code.

**26.3.4.** Any Work necessary to be performed after regular working hours, or on Sundays or other holidays shall be performed without additional expense to the SCCOE.

#### **26.4. Payroll Records**

**26.4.1.** If requested by the SCCOE, Contractor shall provide to the SCCOE and shall cause each Subcontractor performing any portion of the Work to provide the SCCOE and an accurate and certified payroll record ("CPR(s)"), 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 the Contractor and/or each Subcontractor in connection with the Work.

**26.4.1.1.** In addition to any other requirements pursuant to Labor Code sections 1770, et seq., the CPRs enumerated hereunder shall be certified and shall be provided to the SCCOE on a weekly basis. The CPRs from the Contractor and each Subcontractor for each week shall be provided on or before Wednesday of the week following the week covered by the CPRs. SCCOE shall not make any payment to Contractor until:

**26.4.1.1.1.** Contractor and/or its Subcontractor(s) provide CPRs acceptable to the SCCOE, and

**26.4.1.1.2.** The SCCOE is given sufficient time to review and/or audit the CPRs to determine their acceptability. Any delay in Contractor and/or its Subcontractor(s) providing CPRs to the SCCOE in a timely manner will directly delay the SCCOE's review and/or audit of the CPRs and Contractor's payment.

**26.4.2.** All CPRs shall be available for inspection at all reasonable hours at the principal office of Contractor on the following basis:

**26.4.2.1.** A certified copy of an employee's CPR shall be made available for inspection or furnished to the employee or his/her authorized representative on request.

**26.4.2.2.** CPRs shall be made available for inspection or furnished upon request to a representative of SCCOE, Division of Labor Standards Enforcement, Division of Apprenticeship Standards, and/or the Department of Industrial Relations.

**26.4.2.3.** CPRs shall be made available upon request by the public for inspection or copies thereof made; provided, however, that a request by the public shall be made through either the SCCOE, Division of Apprenticeship Standards, or the Division of Labor Standards Enforcement. If the requested CPRs have not been provided pursuant to the provisions herein, the requesting party shall, prior to being provided the records reimburse the costs of preparation by Contractor, Subcontractors, and the entity through which the request was made. The public shall not be given access to the records at the principal office of Contractor.

**26.4.3.** The form of certification for the CPRs shall be as follows:

I, \_\_\_\_\_ (Name-Print), the undersigned, am the \_\_\_\_\_  
\_\_\_\_\_ (Position in business) with the authority to act for and on behalf of \_\_\_\_\_  
\_\_\_\_\_ (Name of business and/or Contractor), certify under penalty of perjury that the records or copies thereof submitted and consisting of \_\_\_\_\_  
(Description, number of pages) are the originals or true, full, and correct copies of the originals which depict the payroll record(s) of actual disbursements by way of cash, check, or whatever form to the individual or individual named, and (b) we have complied with the requirements of sections 1771, 1811, and 1815 of the Labor Code for any work performed by our employees on the Project.

Date: \_\_\_\_\_ Signature: \_\_\_\_\_  
(Section 16401 of Title 8 of the California Code of Regulations)

**26.4.4.** Each Contractor shall file a certified copy of the CPRs with the entity that requested the records within ten (10) days after receipt of a written request.

**26.4.5.** Any copy of records made available for inspection as copies and furnished upon request to the public or any public agency by SCCOE, Division of Apprenticeship Standards, or Division of Labor Standards Enforcement shall be marked or obliterated in such a manner as to prevent disclosure of an individual's name, address, and social security number. The name and address of Contractor awarded Contract or performing Contract shall not be marked or obliterated.

**26.4.6.** Contractor shall inform SCCOE of the location of the records enumerated hereunder, including the street address, city, and county, and shall, within five (5) working days, provide a notice of change of location and address.

**26.4.7.** In the event of noncompliance with the requirements of this section, Contractor shall have ten (10) days in which to comply subsequent to receipt of written notice specifying in what respects Contractor must comply with this section. Should noncompliance still be evident after the ten (10) day period, Contractor shall, as a penalty to SCCOE, forfeit one hundred dollars (\$100) for each calendar day, or portion thereof, for each worker, until strict compliance is effectuated. Upon the request of Division of Apprenticeship Standards or Division of Labor Standards Enforcement, these penalties shall be withheld from progress payments then due.

**26.4.8.** It shall be the responsibility of Contractor to ensure compliance with the provisions of Labor Code section 1776.

## **26.5. Apprentices**

**26.5.1.** Contractor acknowledges and agrees that, if this Contract involves a dollar amount greater than or a number of working days greater than that specified in Labor Code section 1777.5, then this Contract is governed by the provisions of Labor Code Section 1777.5. It shall be the responsibility of Contractor to ensure compliance with this Article and with Labor Code section 1777.5 for all apprenticeship occupations.

**26.5.2.** Apprentices of any crafts or trades may be employed and, when required by Labor Code section 1777.5, shall be employed provided they are properly registered in full compliance with the provisions of the Labor Code.

**26.5.3.** Every such apprentice shall be paid the standard wage paid to apprentices under the regulations of the craft or trade at which he/she is employed, and shall be employed only at the work of the craft or trade to which she/he is registered.

**26.5.4.** Only apprentices, as defined in section 3077 of the Labor Code, who are in training under apprenticeship standards and written apprentice agreements under chapter 4 (commencing at section 3070), division 3, of the Labor Code, are eligible to be employed. The employment and training of each apprentice shall be in accordance with the provisions of the apprenticeship standards and apprentice agreements under which he/she is training.

**26.5.5.** Pursuant to Labor Code section 1777.5, if that section applies to this Contract as indicated above, Contractor and any Subcontractors employing workers in any apprenticeable craft or trade in performing any Work under this Contract shall apply to the applicable joint apprenticeship committee for a certificate approving the Contractor or Subcontractor under the applicable apprenticeship standards and fixing the ratio of apprentices to journeymen employed in performing the Work.

**26.5.6.** Pursuant to Labor Code section 1777.5, if that section applies to this Contract as indicated above, Contractor and any Subcontractor may be required to make contributions to the apprenticeship program.

**26.5.7.** If Contractor or Subcontractor willfully fails to comply with Labor Code section 1777.5, then, upon a determination of noncompliance by the Administrator of Apprenticeship, it shall:

**26.5.7.1.** Be denied the right to bid on any subsequent project for one (1) year from the date of such determination;

**26.5.7.2.** Forfeit as a penalty to SCCOE the full amount as stated in Labor Code section 1777.7. Interpretation and enforcement of these provisions shall be in accordance with the rules and procedures of the California Apprenticeship Council and under the authority of the Chief of the Division of Apprenticeship Standards.

**26.5.8.** Contractor and all Subcontractors shall comply with Labor Code section 1777.6, which section forbids certain discriminatory practices in the employment of apprentices.

**26.5.9.** Contractor shall become fully acquainted with the law regarding apprentices prior to commencement of the Work. Special attention is directed to sections 1777.5, 1777.6, and 1777.7 of the Labor Code, and title 8, California Code of Regulations, section 200 et seq. Questions may be directed to the State Division of Apprenticeship Standards, 455 Golden Gate Avenue, San Francisco, California 94102.

**26.5.10.** Contractor shall ensure compliance with all certification requirements for all workers on the Project including, without limitation, the requirements for electrician certification in Labor Code sections 108, et seq.

## **26.6. Non-Discrimination**

**26.6.1.** Contractor herein agrees not to discriminate in its recruiting, hiring, promotion, demotion, or termination practices on the basis of race, religious creed, national origin, ancestry, sex, age, or physical handicap in the performance of this Contract and to comply with the provisions of the California Fair Employment and Housing Act as set forth in part 2.8 of division 3 of the California Government Code, commencing at section 12900; the Federal Civil Rights Act of 1964, as set forth in Public Law 88-352, and



all amendments thereto; Executive Order 11246, and all administrative rules and regulations found to be applicable to Contractor and Subcontractor.

**26.6.2.** Special requirements for Federally Assisted Construction Contracts: During the performance of this Contract, Contractor agrees to incorporate in all subcontracts the provisions set forth in Chapter 60-1.4(b) of Title 41 published in Volume 33 No. 104 of the Federal Register dated May 28, 1968.

#### **26.7. Labor First Aid**

Contractor shall maintain emergency first aid treatment for Contractor's workers on the Project which complies with the Federal Occupational Safety and Health Act of 1970 (29 U.S.C. § 651 et seq.) the California Occupational Safety and Health Act of 1973, and all related regulations, including without limitation section 330 et seq. of Title 8 of the California Code of Regulations.

### **27. MISCELLANEOUS**

#### **27.1. Assignment of Antitrust Actions**

**27.1.1.** Section 7103.5(b) of the Public Contract Code states:

In entering into a public works contract or subcontract to supply goods, services, or materials pursuant to a public works contract, the 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. Sec. 15) or under the Cartwright Act (Chapter 2 (commencing with Section 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, made and become effective at the time the awarding body tenders final payment to the Contractor, without further acknowledgment by the parties.

**27.1.2.** Section 4552 of the Government Code states:

In submitting a bid to a public purchasing body, the bidder offers and agrees that if the bid is accepted, it will assign to the purchasing 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. Sec. 15) or under the Cartwright Act (Chapter 2 (commencing with Section 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, materials, or services by the bidder for sale to the purchasing body pursuant to the bid. Such assignment shall be made and become effective at the time the purchasing body tenders final payment to the bidder.

**27.1.3.** Section 4553 of the Government Code states:

If an awarding body or public purchasing body receives, either through judgment or settlement, a monetary recovery for a cause of action assigned under this chapter, the assignor shall be entitled to receive reimbursement for actual legal costs incurred and may, upon demand, recover from the public body any portion of the recovery, including treble damages, attributable to overcharges that were paid by the assignor but were not paid by the public body as part of the bid price, less the expenses incurred in obtaining that portion of the recovery.

**27.1.4.** Section 4554 of the Government Code states:

Upon demand in writing by the assignor, the assignee shall, within one year from such demand, reassign the cause of action assigned under this part if the assignor has been or may have been injured by the violation of law for which the cause of action arose and (a) the assignee has not been injured thereby, or (b) the assignee declines to file a court action for the cause of action.

**27.1.5.** Under this Article, “public purchasing body” is SCCOE and “bidder” is Contractor.

**27.2. Excise Taxes**

If, under Federal Excise Tax Law, any transaction hereunder constitutes a sale on which a Federal Excise Tax is imposed and the sale is exempt from such Federal Excise Tax because it is a sale to a State or Local Government for its exclusive use, SCCOE, upon request, will execute documents necessary to show (1) that SCCOE is a political subdivision of the State for the purposes of such exemption, and (2) that the sale is for the exclusive use of SCCOE. No Federal Excise Tax for such materials shall be included in any Contract Price.

**27.3. Taxes**

Contract Price is to include any and all applicable sales taxes or other taxes that may be due in accordance with section 7051 of the Revenue and Taxation Code; Regulation 1521 of the State Board of Equalization or any other tax code that may be applicable.

**27.4. Shipments**

All shipments must be F.O.B. destination to Site or sites, as indicated in the Contract Documents. There must be no charge for containers, packing, unpacking, drayage, or insurance. The total Contract Price shall be all inclusive (including sales tax) and no additional costs of any type will be considered.

**27.5. Compliance with Government Reporting Requirements**

If this Contract is subject to federal or other governmental reporting requirements because of federal or other governmental financing in whole or in part for the Project which it is part, or for any other reason, Contractor shall comply with those reporting requirements at the request of the SCCOE at no additional cost.

END OF DOCUMENT

**DOCUMENT 00 71 00**

**SPECIAL CONDITIONS**

**1. Mitigation Measures**

Contractor shall comply with all applicable mitigation measures, if any, adopted by any public agency with respect to this Project pursuant to the California Environmental Quality Act. (Public Resources Code section 21000 et. seq.)

**2. Modernization Projects**

- a. **Access.** Access to the school buildings and entry to buildings, classrooms, restrooms, mechanical rooms, electrical rooms, or other rooms, for construction purposes, must be coordinated with SCCOE and onsite SCCOE personnel before Contractor commences Work. Unless agreed to otherwise in writing, only a school custodian will be allowed to unlock and lock doors in existing building(s). The custodian will be available only while school is in session. If a custodian is required to arrive before 7:00 a.m. or leave after 3:30 p.m. to accommodate Contractor's Work, the overtime wages for the custodian will be paid by Contractor, unless, at the discretion of SCCOE, other arrangements are made in advance.
- b. **Master Key.** Upon request, SCCOE may, at its own discretion, provide a master key to the school site for the convenience of Contractor. Contractor agrees to pay all expenses to re-key the entire school site and all other affected SCCOE buildings if the master key is lost or stolen or if any unauthorized party obtains a copy of the key or access to the school.
- c. **Maintaining Services.** Contractor is advised that Work is to be performed in spaces regularly scheduled for instruction. Interruption and/or periods of shutdown of public access, electrical service, water service, lighting, or other utilities shall be only as arranged in advance with SCCOE. Contractor shall provide temporary services to all facilities interrupted by Contractor's Work.
- d. **Maintaining Utilities.** Contractor shall maintain in operation during term of Contract, drainage lines, storm drains, sewers, water, gas, electrical, steam, and other utility service lines within working area.
- e. **Confidentiality.** Contractor shall maintain the confidentiality of all information, documents, programs, procedures and all other items that Contractor encounters while performing the Work. This requirement shall be ongoing and shall survive the expiration or termination of the Contract and specifically includes, without limitation, all student, parent, and employee disciplinary information and health information.
- f. **Work During Instructional Time.** By submitting its bid, Contractor affirms that Work may be performed during ongoing instruction in existing facilities. If so, Contractor agrees to cooperate to the best of its ability to minimize any disruption to the school up to, and including, rescheduling specific work activities, at no additional cost to SCCOE.
- g. **No Work During Student Testing.** Contractor shall, at no additional cost to SCCOE and at SCCOE's request, coordinate its Work to not disturb SCCOE students including, without limitation, not performing any Work when students at the Site are taking State-required tests.

**3. Badge Policy For Contractors**

Contractor shall provide their workers and all of Subcontractors' workers with identification badges. These badges shall be worn by all members of the Contractor's staff and all of Subcontractors' staff who are working in a SCCOE facility.

- a. Badges must be filled out in full and contain the following information:
  - (1) Name of Contractor
  - (2) Name of Employee
  - (3) Contractor's address and phone number
- b. Badges must be worn when Contractor or his/her employees are on site and must be visible at all times. Contractors must inform their employees that they are required to allow SCCOE employees, the Architect, the Construction Manager, the Program Manager, or the Project Inspector to review the information on the badges upon request.
- c. Failure to display identification badges as required by this policy may result in the assessment of fines against the Contractor.

4. **Substitution for Specified Items**

- a. Requests for substitutions prior to award of the Contract shall be done within the time period indicated in the Instructions to Bidders.
- b. Requests for substitutions after award of the Contract shall be within **THIRTY-FIVE (35)** days of the date of the Notice of Award. This time period can be extended by the SCCOE only, in its sole discretion.
- c. Whenever in the Specifications any materials, process, or article is indicated or specified by grade, patent, or proprietary name, or by name of manufacturer, that Specification shall be deemed to be followed by the words "or equal." Contractor may, unless otherwise stated, offer any material, process, or article that shall be substantially equal or better in every respect to that so indicated or specified.
  - (1) If the material, process, or article offered by Contractor is not, in the opinion of the SCCOE, substantially equal or better in every respect to that specified, then Contractor shall furnish the material, process, or article specified in the Specifications without any additional compensation or change order.
  - (2) This provision shall not be applicable with respect to any material, product, thing or service for which SCCOE made findings and gave notice in accordance with Public Contract Code section 3400(b); therefore, Contractor shall not be entitled to request a substitution with respect to those materials, products or services.
- d. A request for a substitution shall be in writing and shall include:
  - (1) All variations of the proposed substitute from the material specified including, but not limited to, principles of operation, materials, or construction finish, thickness or gauge of materials, dimensions, weight, and tolerances;
  - (2) Available maintenance, repair or replacement services;
  - (3) Increases or decreases in operating, maintenance, repair, replacement, and spare parts costs;
  - (4) Whether or not acceptance of the substitute will require other changes in the Work (or in work performed by the SCCOE or others under Contract with the SCCOE); and
  - (5) The time impact on any part of the Work resulting directly or indirectly from acceptance of the proposed substitute.

- e. No substitutions shall be made until approved, in writing, by the SCCOE. The burden of proof as to equality of any material, process, or article shall rest with Contractor. The Contractor warrants that if substitutes are approved:
  - (1) The proposed substitute is equal or superior in all respects to that specified, and that such proposed substitute is suitable and fit for the intended purpose and will perform adequately the function and achieve the results called for by the general design and the Contract Documents;
  - (2) The Contractor provides the same warranties and guarantees for the substitute that would be provided for that specified;
  - (3) The Contractor shall be fully responsible for the installation of the substitute and any changes in the Work required, either directly or indirectly, because of the acceptance of such substitute, with no increase in Contract Price or Contract Time. Incidental changes or extra component parts required to accommodate the substitute will be made by the Contractor without a change in the Contract Price or Contract Time;
  - (4) The Contractor shall be responsible for any re-design costs occasioned by SCCOE's acceptance and/or approval of any substitute; and
  - (5) The Contractor shall, in the event that a substitute is less costly than that specified, credit the SCCOE with one hundred percent (100%) of the net difference between the substitute and the originally specified material. In this event, the Contractor agrees to execute a deductive Change Order to reflect that credit.
- f. In the event Contractor furnishes a material, process, or article more expensive than that specified, the difference in the cost of that material, process, or article so furnished shall be borne by Contractor.
- g. In no event shall the SCCOE be liable for any increase in Contract Price or Contract Time due to any claimed delay in the evaluation of any proposed substitute or in the acceptance or rejection of any proposed substitute.
- h. If the SCCOE approves a substitution after the award of the Contract, the SCCOE shall memorialize that approval in a Change Order or other applicable Contract modification process.

5. **Fingerprinting**

Contractor shall comply with the provisions of Education Code section 45125.2 regarding the submission of employee fingerprints to the California Department of Justice and the completion of criminal background investigations of its employees, its subcontractor(s), and its subcontractors' employees. Contractor shall not permit any employee to have any contact with SCCOE pupils until such time as Contractor has verified in writing to the SCCOE, that such employee has not been convicted of a felony, as defined in Education Code section 45122.1. Contractor shall fully complete and perform all tasks required pursuant to the Criminal Background Investigation/ Fingerprinting Certification.

6. **Weather Days**

Delays due to Adverse Weather conditions will only be permitted in compliance with the provisions in the General Conditions and only if the number of days of Adverse Weather exceeds the following parameters:

January	<u>[11]</u>	July	<u>[0]</u>
February	<u>[10]</u>	August	<u>[0]</u>
March	<u>[10]</u>	September	<u>[1]</u>
April	<u>[6]</u>	October	<u>[4]</u>
May	<u>[3]</u>	November	<u>[7]</u>
June	<u>[1]</u>	December	<u>[10]</u>

7. **Insurance Policy Limits.** Contractor's insurance shall be with insurance companies with an A.M. Best rating of no less than A+. The limits of insurance shall not be less than:

<b>Commercial General Liability</b>	Combined Single Limit	<b>[\$2,000,000]</b> per occurrence; <b>[\$4,000,000]</b> aggregate
	Product Liability and Completed Operations	<b>[\$2,000,000]</b> per occurrence; <b>[\$4,000,000]</b> aggregate
<b>Automobile Liability – Any Auto</b>	Combined Single Limit	<b>[\$1,000,000]</b> per occurrence
<b>Workers Compensation</b>		Workers' Compensation with Employer's liability, of no less than \$1,000,000 per accident
<b>Employers' Liability</b>		<b>[\$2,000,000]</b>
<b>Builders Risk (Course of Construction)</b>		Issued for the value and scope of Work indicated herein.
<b>Property of Others Insurance</b>		Coverage for all claims for Stored Materials that are lost, stolen, or damaged. Please indicate if included in Builder's Risk.
<b>Excess Liability</b>		<b>[\$4,000,000]</b>

8. **Permits, Certificates, Licenses, Fees, Approval**

a. **Approvals, Certificates, Fees, Inspections, Licenses, Permits, Etc.**

- (1) **Permits in Bid Price.** Contractor shall include in its Bid the cost of any approvals, certificates, fees, inspections, licenses, permits or similar requirements necessary for the performance of the Work ("Permits").

(1) "Permits" includes, without limitation, any of the following if required: temporary or permanent building, mechanical, electrical or plumbing permits; certificates of occupancy; curb-breaking permits, highway entrance permits; water permits; local inspector fees; etc.

(2) "Permits" does not include Project Inspector fees (which will be paid by the SCCOE unless otherwise indicated herein), professional licensing, or contractors' licensing.

(3) The Contractor shall be required to obtain all Permits. The Contractor shall ensure sufficient time in its Construction Schedule to secure and obtain all permits and shall not be permitted to claim a delay in the Project due to a delay in obtaining a Permit.

- b. **Certain Fees Not Part of Permits.** Notwithstanding the above requirements, SCCOE shall oversee the obtaining and payment of the following permits, fees or charges, but Contractor shall assist in those efforts as requested by the SCCOE at no additional cost to SCCOE:

(1) **DSA Plan Review Fee**

(2) **DSA 168 Statement of Final Actual Project Cost Fee**

- c. **Storm Water Permits**

(1) Contractor shall perform the Work of the Project related to being SCCOE's Qualified SWPPP (Storm Water Pollution Prevention Plan) Practitioner ("QSP").

(2) As SCCOE's QSP, Contractor shall be responsible for storm water and non-storm water visual observations, sampling, and analysis per the SCCOE's SWPPP.

(3) Contractor shall strictly follow the requirements to implement all the provisions of the SWPPP including, without limitation, preparation of monitoring and recording reports and providing those to SCCOE.

(4) Contractor's indemnity obligations are applicable to any damages, penalties, fees, charges, or related expenses assessed or charged to the SCCOE by any water boards or agencies with jurisdiction related to compliance with the Storm Water Permits.

- d. **Project Inspection**

(1) In addition to the requirements in the Contract Documents related to cooperation with and authority of the DSA Project Inspector(s) for the Project, Contractor acknowledges that the DSA inspection, approval, and certification process for projects is governed by the requirements of the most recent version of DSA document PR 13-01. Below are provisions related to the Contractor's duties under PR 13-01 (Procedure: Construction Oversight Process) concerning the use of the "Project Inspection Card" (Form DSA 152).

(1) The Contractor shall carefully study the DSA approved documents and shall plan a schedule of operations well ahead of time.

(2) If at any time it is discovered that work is being done which is not in accordance with the DSA approved construction documents, the Contractor shall correct the work immediately.

(3) Verify that forms DSA 152 are issued for the project prior to the commencement of construction.

**(4)** Meet with the design team, the Laboratory of Record and the Project Inspector to mutually communicate and understand the testing and inspection program and the methods of communication appropriate for the project.

**(5)** Notify the Project Inspector, in writing, of the commencement of construction of each and every aspect of the work at least 48 hours in advance by submitting form DSA 156 (or other agreed upon written documents) to the Project Inspector.

**(6)** Notify the Project Inspector of the completion of construction of each and every aspect of the work by submitting form DSA 156 (or other agreed upon written documents) to the Project Inspector.

**(7)** Consider the relationship of the signed off blocks and sections of the form DSA 152 and the commencement of subsequent work. Until the Project Inspector has signed off applicable blocks and sections of the form DSA 152, the Contractor may be prohibited from proceeding with subsequent construction activities that cover up the unapproved work. Any subsequent construction activities, that cover up the unapproved work, will be subject to a "Stop Work Order" from the DSA or the SCCOE and are subject to removal and remediation if found to be in non-compliance with the DSA approved construction documents.

END OF DOCUMENT



**DOCUMENT 01 11 00**

**SUMMARY OF WORK**

**1. GENERAL**

**1.1. RELATED DOCUMENTS AND PROVISIONS**

Contractor shall review all Contract Documents for applicable provisions related to the provisions in this document, including without limitation:

- 1.1.1. General Conditions;
- 1.1.2. Special Conditions (if any);
- 1.1.3. Supplemental Conditions (if any);
- 1.1.4. Submittals; and
- 1.1.5. Temporary Facilities and Controls.

**1.2. SUMMARY OF WORK COVERED BY CONTRACT DOCUMENTS**

The Work may consist of the following:

**Project includes the installation of electrical equipment, conduit and wiring to be able to connect to a owner furnished portable generator.**

Phase 1 - have PGE turn off and on the power this summer and complete the solar panel work and the installation of the pull can on the switchgear, the trenching and conduit installation, the inground pull can, the concrete pad and the parking lot striping and ordering of the feeders (wiring) and any other work the contractor can complete. But not install the MTS or the feeders.

Phase 2 – when the MTS arrives, the contractor will install this unit and then have PGE turn off and on the power again so the contractor can install the feeders and energize the system.

**1.3. CONTRACTS**

Perform the Work under a single, fixed-price Contract.

**1.4. DEFERRED APPROVAL ITEMS [N/A]**

- 1.4.1. All items that are subject to subsequent review and approval by the Division of the State Architect shall be as indicated below. No deferred approval items shall be installed until the Contractor has complied with all the processes in the Contract Documents, including Division 01 Document "Submittals."
- 1.4.2. Deferred approval items for this Project are the following: [N/A]

**1.5. SPECIAL PROJECT REQUIREMENTS**

- 1.5.1. Hours of Work: Work is to be performed during regular work hours. Contractor shall coordinate its operations with activities taking place at each campus such as summer school. Contractor shall ensure that there are no disruptions to such activities.

**1.6. WORK BY OTHERS**

- 1.6.1. Work to be performed and completed prior to the start of the Project: **[N/A]**

**1.7. CODES, REGULATIONS AND STANDARDS**

- 1.7.1. The codes, regulations, and standards adopted by the State and federal agencies having jurisdiction shall govern minimum requirements for the Project. Where codes, regulations, and standards conflict with the Contract Documents, these conflicts shall be brought to the immediate attention of the SCCOE and the Architect.
- 1.7.2. Codes, regulations, and standards are as published effective as of date of bid opening, unless otherwise specified or indicated.

**1.8. EXAMINATION OF EXISTING CONDITIONS**

- 1.8.1. Contractor shall be held to have examined the Project Site and acquainted itself with the conditions of the Site and of the streets and roads approaching the Site.
- 1.8.2. Prior to commencement of Work, Contractor shall survey the Site and existing buildings and improvements to observe existing damage and defects such as cracks, sags, broken, missing or damaged glazing, other building elements and Site improvements, and other damage.
- 1.8.3. Should Contractor observe cracks, sags, and other damage to and defects of the Site and adjacent buildings, paving, and other items not indicated in the Contract Documents, Contractor shall immediately report same to the SCCOE and the Architect.

**1.9. CONTRACTOR'S USE OF PREMISES**

- 1.9.1. Contractor shall take all reasonable precautions for the safety of the students and the school employees throughout the duration of the Project.
- 1.9.2. If unoccupied and only with SCCOE's prior written approval, Contractor may use the building(s) at the Project Site without limitation for its operations, storage, and office facilities for the performance of the Work. If the SCCOE chooses to beneficially occupy any building(s), Contractor must obtain the SCCOE's written approval for Contractor's use of spaces and types of operations to be performed within the building(s) while so occupied. Contractor's access to the building(s) shall be limited to the areas indicated.
- 1.9.3. If the space at the Project Site is not sufficient for Contractor's operations, storage, office facilities and/or parking, Contractor shall arrange and pay for any additional facilities needed by Contractor, at no expense to SCCOE.
- 1.9.4. Contractor shall not interfere with others use of or access to occupied portions of the building(s) or adjacent property.

- 1.9.5. Contractor shall maintain corridors, stairs, halls, and other exit-ways of building clear and free of debris and obstructions at all times.
- 1.9.6. No one other than those directly involved in the demolition and construction or specifically designated by the SCCOE or the Architect shall be permitted in the areas of Work during demolition and construction activities.

#### **1.10. PROTECTION OF EXISTING STRUCTURES AND UTILITIES**

- 1.10.1. The Drawings show above-grade and below-grade structures, utility lines, and other installations that are known or believed to exist in the area of the Work. Contractor shall locate these existing installations before proceeding with excavation and other operations that could damage same; maintain them in service, where appropriate; and repair damage to them caused by the performance of the Work. Should damage occur to these existing installations, the costs of repair shall be at the Contractor's expense and made to the SCCOE's satisfaction.
- 1.10.2. Contractor shall be alert to the possibility of the existence of additional structures and utilities. If Contractor encounters additional structures and utilities, Contractor will immediately report to the SCCOE for disposition of same as indicated in the General Conditions.

#### **1.11. UTILITY SHUTDOWNS AND INTERRUPTIONS**

- 1.11.1. Contractor shall give the SCCOE a minimum of three (3) days written notice in advance of any need to shut off existing utility services or to effect equipment interruptions. SCCOE will set exact time and duration for shutdown and will assist Contractor with shutdown. Work required to re-establish utility services shall be performed by the Contractor.
- 1.11.2. Contractor shall obtain SCCOE's written approval as indicated in the General Conditions in advance of deliveries of material or equipment or other activities that may conflict with SCCOE's use of the building(s) or adjacent facilities.

#### **1.12. STRUCTURAL INTEGRITY**

- 1.12.1. Contractor shall be responsible for and supervise each operation and work that could affect structural integrity of various building elements, both permanent and temporary.
- 1.12.2. Contractor shall include structural connections and fastenings as indicated or required for complete performance of the Work.

#### **1.13. ENVIRONMENTAL REQUIREMENTS [N/A]**

- 1.13.1. This Project has been designated to incorporate environmental concepts established as part of the \_\_\_\_\_. To the extent possible, materials, processes, procedures, and equipment included in these Specifications shall comply with sustainable design practices.
- 1.13.2. **[NOT APPLICABLE] LEED™ Certification:** This Project will submit documentation for LEED™ Certification Program of US Green Building Council (USGBC), 1015 18th Street,

NW, Suite 805, Washington, DC 20036; Ph: 202-828-7422; Fax: 202/828-5110;  
[www.usgbc.org](http://www.usgbc.org). Requirements are described in Division 01 Document "LEED  
Certification Sustainable Design Requirements."

**END OF DOCUMENT**

**DOCUMENT 01 12 10**

**CONTRACT FORMS AND SUBMITTALS**

**1. GENERAL**

**1.1. RELATED DOCUMENTS AND PROVISIONS**

Contractor shall review all Contract Documents for applicable provisions related to the provisions in this document, including without limitation:

- 1.1.1. General Conditions;
- 1.1.2. Special Conditions (if any);
- 1.1.3. Supplemental Conditions (if any);
- 1.1.4. Submittals; and
- 1.1.5. Construction Schedule.

**2. REQUIREMENTS OF THE SCCOE**

**2.1.** Contractor shall utilize the SCCOE's forms as indicated below. This requirement also applies to submittals, including the requirement that the Contractor and its Subcontractors, as indicated, utilize the software, internet and specific programs on this Project as indicated herein.

**2.2.** The link to the SCCOE's on-line document, submittal, and forms program can be found at:  
<https://www.sccoe.org/depts/bizserv/purchasing/Pages/Bids-Posting-System.aspx>

**2.3. SCCOE FORMS [N/A]**

All forms identified below shall utilize SCCOE forms available at the above referenced link. Contractor must only utilize these forms, including the programs, processes and software indicated below.

- 2.3.1. **Request for Information.** Contractor shall comply with all applicable provisions in Contract Documents relating to Requests for Information. Contractor shall submit all of its Requests for Information using SCCOE's Form attached hereto.
- 2.3.2. **Construction Directive.** Contractor shall comply with all applicable provisions in Contract Documents relating to Changes in the Work. All Construction Directives shall be issued using SCCOE's Form attached hereto.
- 2.3.3. **Price Request.** Contractor shall comply with all applicable provisions in Contract Documents relating to Price Requests. All Price Requests shall be issued using SCCOE's Form attached hereto.
- 2.3.4. **Proposed Change Order.** Contractor shall comply with all applicable provisions in Contract Documents relating to Changes in the Work. Contractor shall submit all of its Proposed Change Orders using SCCOE's Form attached hereto.

- 2.3.5. **Change Order.** Contractor shall comply with applicable provisions in Contract Documents relating to Changes in the Work. All Change Orders shall be issued using SCCOE's Form attached hereto.

**2.4. CONTRACTOR SUBMITTALS**

All submittals required by the Contract Documents shall be submitted using the programs, processes and software indicated below. If no specific program or format is indicated, then Microsoft Word or Microsoft Excel is acceptable.

- 2.4.1. **Contractor's Completed Subcontractor List**
- 2.4.2. **Contractor's Safety Plan**
- 2.4.3. **Schedule of Submittals**
- 2.4.4. **Operations And Maintenance Manual & Instructions**

**END OF DOCUMENT**

**DOCUMENT 01 20 00**

**PRICE AND PAYMENT PROCEDURES**

**1. GENERAL**

**1.1. RELATED DOCUMENTS AND PROVISIONS**

Contractor shall review all Contract Documents for applicable provisions related to the provisions in this document, including without limitation:

- 1.1.1. General Conditions;
- 1.1.2. Special Conditions (if any);
- 1.1.3. Supplemental Conditions (if any).

**1.2. DESCRIPTION**

- 1.2.1. This Document contains procedures to be followed by the Contractor to request payment.
- 1.2.2. **IF THERE IS ANY INCONSISTENCY IN THIS DOCUMENT WITH THE PROVISIONS IN THE GENERAL CONDITIONS AND THE SPECIAL CONDITIONS THAT THE CONTRACTOR SHALL COMPLY WITH RELATED TO CHANGES AND/OR REQUESTS FOR CHANGES (e.g., "PAYMENTS," "SCHEDULE OF VALUES"), THOSE PROVISIONS IN THE GENERAL CONDITIONS AND THE SPECIAL CONDITIONS SHALL TAKE PRECEDENCE.**

**1.3. SECTION INCLUDES**

- 1.3.1. Schedule of Values.
- 1.3.2. Application for Payment.

**1.4. SCHEDULE OF VALUES**

- 1.4.1. Provide a breakdown of the Contract Price with enough detail to facilitate continued evaluation of Applications for Payment and Progress Reports.
- 1.4.2. Contractor must update and resubmit the Schedule of Values before the next Invoice or Application for Payment when Change Orders or Construction Change Directives result in a change in the Contract Price.
- 1.4.3. Coordination: Coordinate preparation of the Schedule of Values with preparation of Contractor's Construction Schedule. Comply with the provisions in the General Conditions regarding the Schedule of Values.
  - 1.4.3.1. Correlate line items in the Schedule of Values with other required administrative forms and schedules, including the following:
    - 1.4.3.1.1. Application for Payment forms.

- 1.4.3.1.2. Submittal Schedule.
    - 1.4.3.1.3. Contractor's Construction Schedule.
  - 1.4.3.2. Submit the Schedule of Values to SCCOE as indicated in the Contract Documents and, if an updated Schedule of Values is needed, then no later than ten (10) days before the date scheduled for submittal of the next Application(s) for Payment.
  - 1.4.3.3. Subschedules: Where the Work is separated into phases requiring separately phased payments, provide subschedules showing values correlated with each phase of payment.
- 1.4.4. Format and Content: Use the Project Manual table of contents as a guide to establish line items for the Schedule of Values. Provide at least one line item for each Specification Section.
  - 1.4.4.1. Identification: Include the following Project identification on the Schedule of Values:
    - 1.4.4.1.1. Project name and location.
    - 1.4.4.1.2. Name of SCCOE's Representative.
    - 1.4.4.1.3. SCCOE's contract number (\_\_\_\_\_).
    - 1.4.4.1.4. SCCOE's name and address.
    - 1.4.4.1.5. Date of submittal.
  - 1.4.4.2. Arrange the Schedule of Values in tabular form with separate columns to indicate the following for each item listed:
    - 1.4.4.2.1. Related Specification document, section or division.
    - 1.4.4.2.2. Description of the Work.
    - 1.4.4.2.3. Name of subcontractor.
    - 1.4.4.2.4. Name of manufacturer or fabricator.
    - 1.4.4.2.5. Name of supplier.
    - 1.4.4.2.6. Change Orders (numbers) that affect value.
    - 1.4.4.2.7. Dollar value.
      - 1.4.4.2.7.1. Percentage of the Contract Price to nearest one-hundredth percent, adjusted to total 100 percent.
  - 1.4.4.3. Provide a breakdown of the Contract Price in enough detail to facilitate continued evaluation of Applications for Payment and progress reports.



Provide several line items for principal subcontract amounts, where appropriate. Include separate line items under required principal subcontracts for operation and maintenance manuals, punch list activities, Project Record Documents, and demonstration and training.

1.4.4.4. Round amounts to nearest whole dollar; total shall equal the Contract Price.

1.4.4.5. 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.

1.4.4.6. 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.

1.4.4.7. Allowances (if any): Provide a separate line item in the Schedule of Values for each allowance. Show line-item value of unit-cost allowances, as a product of the unit cost, multiplied by measured quantity. Use information indicated in the Contract Documents to determine quantities.

1.4.4.8. Each item in the Schedule of Values and Applications for Payments shall be complete. Include total cost and proportionate share of general overhead and profit for each item.

1.4.5. Schedule Updating: Update and resubmit the Schedule of Values before the next Application for Payment if there is a change in the Contract Price.

## **1.5. APPLICATIONS FOR PAYMENT**

1.5.1. **Form:** Contractor shall utilize AIA Form G702 - Application and Certificate for Payment and AIA Form G703 - Continuation Sheet, or SCCOE-approved form with the same information as these AIA forms.

1.5.2. **Content and Format:** SCCOE shall use Schedule of Values for listing items in its Application for Payment.

1.5.3. Each Application for Payment shall be consistent with previous applications and payments as certified and paid for by SCCOE.

**END OF DOCUMENT**

**DOCUMENT 01 21 00**

**ALLOWANCES**

**1. GENERAL**

**1.1. RELATED DOCUMENTS AND PROVISION**

Contractor shall review all Contract Documents for applicable provisions related to the provisions in this document, including without limitation:

- 1.1.1. General Conditions including without limitation, Contract Terms and Definitions;
- 1.1.2. Special Conditions (if any);
- 1.1.3. Supplemental Conditions (if any).
- 1.1.4. Agreement;
- 1.1.5. Bid Form; and

**1.2. SUMMARY**

- 1.2.1. **THE SPECIFIC ALLOWANCES FOR THIS PROJECT ARE AS LISTED IN THE AGREEMENT.**
- 1.2.2. This Document includes administrative and procedural requirements governing Allowances.
- 1.2.3. Certain items are specified in the Contract Documents by Allowances. Allowances have been established in lieu of additional requirements and to defer selection of actual materials and equipment to a later date when additional information is available for evaluation. If necessary, additional requirements may be issued by Change Order or similar document.

**1.3. SELECTION AND PURCHASE**

- 1.3.1. At the earliest practical date after award of the Contract, Contractor shall advise SCCOE of the date when final selection and purchase of each product or system described by an Allowance must be completed to avoid delaying the Work.
- 1.3.2. At SCCOE's request, obtain proposals for each Allowance for use in making final selections. Include recommendations that are relevant to performing the Work.
- 1.3.3. Purchase products and systems selected by SCCOE from the designated supplier.

**1.4. SUBMITTALS**

- 1.4.1. Submit proposals for purchase of products or systems included in Allowances, in the form specified for Change Orders.
- 1.4.2. Submit invoices or delivery slips to show actual quantities of materials delivered to the Site for use in fulfillment of each Allowance.

- 1.4.3. Coordinate and process submittals for Allowance items in same manner as for other portions of the Work.

## **1.5. COORDINATION**

Coordinate Allowance items with other portions of the Work. Furnish templates as required to coordinate installation.

## **1.6. PAYMENT FOR ALLOWANCES**

- 1.6.1. Allowance shall include all-inclusive cost to Contractor of specific products and materials under Allowance and Contractor may bill its time, materials, and other items in the identical structure as a Change Order.

## **1.7. UNUSED MATERIALS**

- 1.7.1. Return unused materials purchased under an Allowance to manufacturer or supplier for credit to SCCOE, after installation has been completed and accepted.
- 1.7.2. If requested, prepare and deliver unused material for storage by SCCOE when it is not economically practical (as determined by SCCOE) to return the material for credit. If directed, deliver unused material to SCCOE's storage space. Otherwise, disposal of unused material is Contractor's responsibility.

## **2. EXECUTION**

### **2.1. EXAMINATION**

Examine products covered by an Allowance promptly on delivery for damage or defects. Return damaged or defective products to manufacturer for replacement.

### **2.2. PREPARATION**

Coordinate materials and their installation for each Allowance with related materials and installations to ensure that each Allowance item is completely integrated and interfaced with related work.

**END OF DOCUMENT**

**DOCUMENT 01 23 00**

**ALTERNATES AND UNIT PRICING**

**1. ALTERNATES AND UNIT PRICES**

**1.1. RELATED DOCUMENTS AND PROVISIONS**

Contractor shall review all Contract Documents for applicable provisions related to the provisions in this document, including without limitation:

- 1.1.1. General Conditions;
- 1.1.2. Special Conditions (if any);
- 1.1.3. Supplemental Conditions (if any);
- 1.1.4. Bid Form and Proposal; and
- 1.1.5. Instruction to Bidders.

**2. ALTERNATES**

**2.1. DESCRIPTION**

An amount proposed by Contractor and stated in its Bid Form for certain work defined in the Instruction to Bidders, Bid Form or Contract Documents that may be added to or deducted from the Base Bid amount. The acceptance or rejection of any of the alternates is strictly at the option of the SCCOE and subject to SCCOE's acceptance of Contractor's stated prices contained in this Proposal.

The cost or credit for each alternate is the net addition to or deduction from the Contract Price to incorporate the alternate into the Work. No other adjustments are made to the Contract Price.

**2.2. GENERAL:**

- 2.2.1. Coordination: Contractor shall modify or adjust adjacent work as necessary to completely integrate work of the alternate into the Project.
  - 2.2.1.1. Include as part of each alternate, miscellaneous devices, accessories and similar items incidental to or required for a complete installation whether or not indicated as part of the alternate.
  - 2.2.1.2. Include as part of each alternate, the costs of related coordination, modification, or adjustments.
- 2.2.2. If SCCOE accepts an alternate, Contractor shall perform the work of the alternate under the same conditions as other Work required by Contract Documents.
- 2.2.3. Notification: Immediately following award of the Contract, Contractor shall notify all of its Subcontractor(s) in writing of the status of each alternate. Indicate if alternates have been accepted, rejected, or deferred for later consideration. Include a complete description of negotiated modifications to alternates.

- 2.2.4. Schedule of Alternates: A Schedule of Alternates is included at the end of this Document. Specifications referenced in the Schedule of Alternates contain requirements for materials necessary to achieve the Work described under each alternate.

### **3. UNIT PRICING**

#### **3.1. DESCRIPTION**

An amount proposed by Contractor and stated in its Bid Form for certain work defined in the Instruction to Bidders and Bid Form that may be priced by unit. The acceptance or rejection of any of the unit prices is strictly at the option of the SCCOE and subject to SCCOE's acceptance of Contractor's stated prices contained in the Bid Form and may be subsequently negotiated prior to incorporation on Change Order(s).

#### **3.2. GENERAL**

Contractor shall completely state all required figures based on Unit Prices required in the Bid Form. Where scope of Work is decreased, all Work pertaining to the item, whether specifically stated or not, shall be omitted and where scope of Work is increased, all work pertaining to that item required to render same ready for use on the Project in accordance with intention of Drawings and Specifications shall be included in an agreed upon price amount.

#### **3.3. UNIT PRICES**

Furnish unit prices for each of the named items on a square foot, lineal foot, or per each basis, as requested and applicable. Unit prices shall include all labor, materials, services, profit, overhead, insurance, bonds, taxes, and all other incidental costs of Contractor, subcontractors, and supplier(s).

### **4. EXECUTION**

#### **4.1. SCHEDULE OF ALTERNATES [N/A]**

**END OF DOCUMENT**

**DOCUMENT 01 25 10**

**PRODUCT OPTIONS AND SUBSTITUTIONS**

**1. GENERAL**

**1.1. RELATED DOCUMENTS AND PROVISIONS**

Contractor shall review all Contract Documents for applicable provisions related to the provisions in this document, including without limitation:

- 1.1.1. General Conditions;
- 1.1.2. Special Conditions (if any);
- 1.1.3. Supplemental Conditions (if any); and
- 1.1.4. Instructions to Bidders.

**1.2. DOCUMENT INCLUDES**

- 1.2.1. Product options.
- 1.2.2. Limitations on Substitutions.
- 1.2.3. Regulatory Requirements.
- 1.2.4. Substitution Representation.
- 1.2.5. Submittal Procedure.
- 1.2.6. SCCOE's Review.

**1.3. DEFINITIONS**

- 1.3.1. Requests for changes in products, materials, or equipment required by Contract Documents proposed by the Contractor prior to and after award of the Contract are considered requests for substitutions. Contractor must refer to the Instructions to Bidders, the General Conditions and the Special Conditions for limitations on when requests for substitution(s) are permitted on Project. The following are not considered substitutions:
  - 1.3.1.1. Revisions to Contract Documents requested by the SCCOE or Architect.
  - 1.3.1.2. Specified options of products, materials, and equipment included in Contract Documents.
- 1.3.2. Whenever in the Specifications any material, product, thing, or service is indicated or specified by grade, patent, or proprietary name, or by name of manufacturer, that Specification shall be deemed to be used for the purpose of facilitating the description

of the material, product, thing, or service, and shall be deemed to be followed by the words "or equal," except:

1.3.2.1. When designated to match other material, product, thing, or service in use on a particular public improvement either completed or in the course of completion; or

1.3.2.2. When designated as a field test or experiment.

#### **1.4. PRODUCT OPTIONS**

1.4.1. **Products Specified by Reference Standards or by Description Only:** Any Product meeting those standards or description.

1.4.2. **Products Specified by Naming One or More Manufacturers with or without Provision for Substitution:** Products of manufacturers named and meeting specifications with substitution of Products or manufacturer only when submitted under provisions of this section.

#### **1.5. LIMITATIONS ON SUBSTITUTIONS**

1.5.1. The Bid shall be based upon the standards of quality established by those items of equipment and/or materials which are specifically identified in the Contract Documents.

1.5.2. Burden of proof of merit of requested substitution is the responsibility of the Contractor.

1.5.3. It is the sole responsibility of Contractor to submit the proper content of any requests for substitutions. Incomplete submittals will be rejected.

#### **1.6. REGULATORY REQUIREMENTS**

1.6.1. It shall be the responsibility of Contractor to obtain all regulatory approvals required for proposed substitutions.

1.6.2. All regulatory approvals shall be obtained for proposed substitutions prior to submittal of substitution request to Architect.

1.6.3. All costs incurred by the SCCOE in obtaining regulatory approvals for proposed substitutions to include the costs of the Architect and any authority having jurisdiction over the Project shall be reimbursed to the SCCOE. Costs of these services shall be reimbursed regardless of final acceptance or rejection of substitution.

1.6.4. Substitutions of materials or work procedures which affect the health, safety and welfare of the public shall have prior approval of the Division of the State Architect (DSA) field representative.

#### **1.7. SUBSTITUTION REPRESENTATION**

1.7.1. In submitting a request for substitution, Contractor makes the representation that:

- 1.7.2. Contractor has investigated the proposed substitution and determined that it meets or exceeds the quality level of the specified product;
- 1.7.3. Contractor has determined that all components of the proposed substitution are identical and fully interchangeable with the product name and number specified;
- 1.7.4. Contractor will provide the same warranty or guarantee for the substitution as for the specified product;
- 1.7.5. Contractor will coordinate installation and make changes to other work which may be required for the work to be completed with no additional cost to the SCCOE;
- 1.7.6. Contractor waives claims for additional cost or time extension which may subsequently become apparent; and
- 1.7.7. Contractor will reimburse SCCOE for the cost of SCCOE's and Architect's review or redesign services associated with substitution request.

## **1.8. SUBMITTAL PROCEDURE**

- 1.8.1. Submit six (6) copies of each request.
- 1.8.2. Submit request using SCCOE's Substitution Request Form as indicated in Contract Forms and Submittals. Substitution requests that are not on SCCOE's required form shall be returned without review.
- 1.8.3. Limit each request to one proposed substitution.
- 1.8.4. Request to include sufficient data so that direct comparison of proposed substitution can be made.
- 1.8.5. Provide complete documentation for each request. Documentation shall include the following information, as appropriate, as a minimum:
  - 1.8.5.1. Statement of cause for substitution request.
  - 1.8.5.2. Identify product by specification section and article number.
  - 1.8.5.3. Provide manufacturer's name, address, and phone number. List fabricators, suppliers, and installers as appropriate.
  - 1.8.5.4. List similar projects where proposed substitution has been used, dates of installation and names of Architect and SCCOE.
  - 1.8.5.5. List availability of maintenance services and replacement materials.
  - 1.8.5.6. Documented or confirmation of regulatory approval.
  - 1.8.5.7. Product data, including drawings and descriptions of products.
  - 1.8.5.8. Fabrication and installation procedures.



1.8.5.9. Samples of proposed substitutions.

1.8.5.10. Itemized comparison of significant qualities of the proposed substitution with those of the product specified. Significant qualities may include size, weight, durability, performance requirements and visual effects.

1.8.5.11. Coordination information, including a list of changes or modifications needed to other items of work that will become necessary to accommodate proposed substitution.

1.8.5.12. Statement on the substitutions effect on the Construction Schedule.

1.8.5.13. Cost information including a proposal of the net reduction in cost to the Contract Price if the proposed substitution is accepted.

1.8.5.14. Certification that the substitution is equal to or better in every respect to that required by the Contract Documents and that substitution will perform adequately in the application intended.

1.8.5.15. Waiver of right to additional payment or time that may subsequently become necessary because of failure of substitution to perform adequately.

1.8.6. Inadequate warranty, vagueness of submittal, failure to meet specified requirements, or submittal of insufficient data will be cause for rejection of substitution request.

## **1.9. SCCOE'S REVIEW**

1.9.1. The SCCOE will accept or reject proposed substitution within a reasonable amount of time.

1.9.2. If a request is made prior to bid opening and the SCCOE has not completed its review, Contractor shall base its bid on the product specified only.

1.9.3. There shall be no claim for additional time for review of proposed substitutions.

1.9.4. Final acceptance of a substitution submitted prior to the date established for the receipt of bids will be in the form of an addendum.

**END OF DOCUMENT**

**DOCUMENT 01 26 00**

**CONTRACT MODIFICATION PROCEDURES**

**1. GENERAL**

**1.1. RELATED DOCUMENTS AND PROVISIONS**

Contractor shall review all Contract Documents for applicable provisions related to the provisions in this document, including without limitation:

- 1.1.1. General Conditions;
- 1.1.2. Special Conditions (if any);
- 1.1.3. Supplemental Conditions (if any);
- 1.1.4. Allowances;
- 1.1.5. Product Options and Substitutions; and
- 1.1.6. Project Coordination.

**1.2. DESCRIPTION**

- 1.2.1. This Document contains procedures to be followed by the Contractor to request changes in the Contract Time of the Contract Price.
- 1.2.2. **IF THERE IS ANY INCONSISTENCY IN THIS DOCUMENT WITH THE PROVISIONS IN THE GENERAL CONDITIONS AND THE SPECIAL CONDITIONS THAT THE CONTRACTOR SHALL COMPLY WITH RELATED TO CHANGES AND/OR REQUESTS FOR CHANGES (e.g., "Change in the Work"), THOSE PROVISIONS IN THE GENERAL CONDITIONS AND THE SPECIAL CONDITIONS SHALL TAKE PRECEDENCE.**

**1.3. SUMMARY**

This Document specifies administrative and procedural requirements for handling and processing Contract modifications.

**1.4. CONSTRUCTION CHANGE DIRECTIVE**

The SCCOE may as provided by law, by Construction Directive and without invalidating the Contract, order changes in the Work consisting of additions, deletions, or other revisions.

**1.5. PRICE REQUESTS**

- 1.5.1. Do not consider Price Requests to be instructions either to stop work in progress or to execute the proposed change.
- 1.5.2. Within time specified in Price Request after receipt of Price Request, submit a quotation estimating cost adjustments to the Contract Price and the Contract Time necessary to execute the change.

- 1.5.2.1. 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.
- 1.5.2.2. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
- 1.5.2.3. Include costs of labor and supervision directly attributable to the change.
- 1.5.2.4. 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.

#### **1.6. PROPOSED CHANGE ORDERS**

Contractor may propose changes by submitting a request for a change on SCCOE's Proposed Change Order form (PCO) to SCCOE.

- 1.6.1. 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.
- 1.6.2. Comply with Contract Document requirements if the proposed change requires substitution of one product or system for product or system specified.

**END OF DOCUMENT**

**DOCUMENT 01 26 10**

**REQUESTS FOR INFORMATION**

**1. GENERAL**

**1.1. RELATED DOCUMENTS AND PROVISIONS**

Contractor shall review all Contract Documents for applicable provisions related to the provisions in this document, including without limitation:

- 1.1.1. General Conditions;
- 1.1.2. Special Conditions (if any);
- 1.1.3. Supplemental Conditions (if any);
- 1.1.4. Documentation Requirements;
- 1.1.5. Electronic Data Transfer;
- 1.1.6. Submittals;
- 1.1.7. Contract Closeout and Final Cleaning;
- 1.1.8. Operation and Maintenance Data;
- 1.1.9. Warranties; and
- 1.1.10. Record Documents;

**1.2. DESCRIPTION**

This Document contains procedures to be followed by the Contractor to request Architect provide additional information necessary to clarify or amplify an item in the Contract Documents that Contractor thinks is not clearly shown or called for in the Drawings or Specifications or other portions of the Contract Documents, or to address issues that have arisen under field conditions.

**1.3. PROCEDURES**

- 1.3.1. Notification by Contractor:
  - 1.3.1.1. Submit all requirements for clarification or additional information, whether originated by the Contractor, a Subcontractor, or supplier at any tier, in writing to SCCOE as required by the Contract Documents.
  - 1.3.1.2. Number RFIs sequentially. Follow RFI number with sequential alphabetical suffix as necessary for each resubmission. For example, the first RFI would be "001." The second RFI would be "002."
  - 1.3.1.3. All RFIs shall reference all applicable Contract Document(s), including Specification section(s), detail(s), page number(s), drawing number(s), and sheet number(s), etc. Contractor shall make suggestions and interpretations of

the issue raised by each RFI. An RFI cannot modify the Contract Price, Contract Time, or the Contract Documents.

1.3.1.4. Limit each RFI to one subject.

1.3.1.5. Submit a RFI if one of the following conditions occurs:

1.3.1.5.1. Contractor discovers an unforeseen condition or circumstance that is not described in the Contract Documents.

1.3.1.5.2. Contractor discovers an apparent conflict or discrepancy between portions of the Contract Documents that appears to be inconsistent or is not reasonably inferred from the intent of the Contract Documents.

1.3.2. Contractor shall not:

1.3.2.1. Submit an RFI as a request for substitution.

1.3.2.2. Submit an RFI as a submittal.

1.3.2.3. Submit an RFI without first having thoroughly reviewed the Contract Documents.

1.3.2.4. Submit an RFI in a manner that suggests that specific portions of the Contract Documents are assumed to be excluded or by taking an isolated portion of the Contract Documents in part rather than whole.

1.3.2.5. Submit an RFI in an untimely manner without proper coordination and scheduling of Work related trades.

1.3.2.6. If Contractor submits an RFI contrary to the above, Contractor shall pay the cost of any review, which cost shall be deducted from the Contract Price.

1.3.3. Contractor shall be liable to the SCCOE for all costs incurred by the SCCOE associated with the processing, reviewing, evaluating and responding to any RFI, including without limitation, fees of the Architect and any other design consultant to the Architect or the SCCOE, that SCCOE reasonably determines:

1.3.3.1. Does not reflect adequate or competent supervision or coordination by the Contractor or any Subcontractor; or

1.3.3.2. Does not reflect the Contractor's adequate or competent knowledge of the requirements of the Work or the Contract Documents;

1.3.3.3. Requests an interpretation or decision of a matter where the information sought is equally available to the Contractor; or

1.3.3.4. Is not justified for any other reason.

#### **1.4. RESPONSE TIME**

- 1.4.1. Architect shall review RFIs and issue a response and instructions to Contractor within a reasonable time frame from the date the RFI is received and dated by the SCCOE.
- 1.4.2. Responses from the SCCOE will not change any requirement of the Contract unless so noted by the SCCOE in the response to the RFI. Should the Contractor contend that a response to an RFI causes a change to the Contract that requires a Change Order, the Contractor shall, before proceeding, give written notice to the SCCOE, indicating that the Contractor considers the SCCOE's response to the RFI to be a Change Order, as required by the Contract Documents.
- 1.4.3. Should Contractor direct its Subcontractors to proceed with the Work affected before receipt of a response from Architect, any portion of the Work which is not done in accordance with the Architect's ultimate interpretations, clarifications, instructions, or decisions is subject to removal or replacement at Contractor's sole expense and responsibility.

**END OF DOCUMENT**

**DOCUMENT 01 31 00**

**COORDINATION AND PROJECT MEETINGS**

**1. GENERAL**

**1.1. RELATED DOCUMENTS AND PROVISIONS:**

Contractor shall review all Contract Documents for applicable provisions related to the provisions in this document, including without limitation:

- 1.1.1. General Conditions;
- 1.1.2. Special Conditions (if any);
- 1.1.3. Supplemental Conditions (if any); and
- 1.1.4. Technical Specifications.

**1.2. SECTION INCLUDES**

- 1.2.1. Coordination Responsibilities of the Contractor.
- 1.2.2. Field Engineering Responsibilities of the Contractor.
- 1.2.3. Preconstruction Conference.
- 1.2.4. Progress Meetings.
- 1.2.5. Pre-Installation Conferences.
- 1.2.6. Post Construction Dedication.

**1.3. COORDINATION RESPONSIBILITIES OF THE CONTRACTOR**

- 1.3.1. Coordinate scheduling, submittals, and Work of the Specifications to assure efficient and orderly sequence of installation of interdependent construction elements, with provisions for accommodating items installed later.
- 1.3.2. Prior to commencement of a particular type or kind of Work examine relevant information, contract documents, and subsequent data issued to the Project.
- 1.3.3. Verify that utility requirement characteristics of operating equipment are compatible with building utilities. Coordinate Work of various sections having interdependent responsibilities for installing, connecting to, and placing in service such equipment.
- 1.3.4. Closing up of holes, backfilling, and other covering up operations shall not proceed until all enclosed or covered Work and inspections have been completed. Verify before proceeding.
- 1.3.5. Coordinate space requirements and installation of mechanical and electrical Work which are indicated diagrammatically on Drawings. Follow routing shown for pipes, ducts, and

conduit as closely as practicable; place runs parallel with line of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.

- 1.3.6. In finished areas except as otherwise indicated, conceal pipes, ducts, and wiring within the construction. Coordinate locations of fixtures and outlets with finish elements.
- 1.3.7. In locations where several elements of mechanical and electrical Work must be sequenced and positioned with precision in order to fit into available space, prepare coordination drawings showing the actual conditions required for the installation. Prepare coordination drawings prior to purchasing, fabricating, or installing any of the elements required to be coordinated.
- 1.3.8. Closing up of walls, partitions or furred spaces, backfilling, and other covering up operations shall not proceed until all enclosed or covered Work and inspections have been completed. Verify before proceeding.
- 1.3.9. Coordinate completion and cleanup of Work of separate sections in preparation for completion and for portions of Work designated for SCCOE's occupancy.
- 1.3.10. After SCCOE occupancy of Project, coordinate access to Site for correction of defective Work and Work not in accordance with Contract Documents, to minimize disruption of SCCOE's activities.
- 1.3.11. Coordinate all utility company Work in accordance with the Contract Documents.
- 1.3.12. Key Personnel Names: Within fifteen (15) days of starting construction operations, submit a list of key personnel assignments, including superintendent and other personnel in attendance at Project site. Identify individuals and their duties and responsibilities; list addresses and telephone numbers, including home and office telephone numbers. Provide names, addresses, and telephone numbers of individuals assigned as standbys in the absence of individuals assigned to Project. Post copies of list in Project meeting room, in temporary field office, and by each temporary telephone. Keep list current at all times.

#### **1.4. FIELD ENGINEERING RESPONSIBILITIES OF THE CONTRACTOR**

- 1.4.1. Contractor shall employ a Land Surveyor registered in the State of California and acceptable to the Architect.
- 1.4.2. Control datum for survey is that established by SCCOE provided survey. Contractor to locate and protect survey control and reference points.
- 1.4.3. Replace dislocated survey control points based on original survey control.
- 1.4.4. Provide field engineering services. Establish elevations, lines, and levels utilizing recognized engineering survey practices.
- 1.4.5. Upon completion of Work, submit certificate signed by the Land Surveyor that elevations and locations of Work are in conformance with Contract Documents. Record deviations on Record Drawings.



## **1.5. PRECONSTRUCTION CONFERENCE**

- 1.5.1. Construction Manager or Project Engineer will schedule a conference immediately after, and in no case more than fifteen (15) days after, receipt of fully executed Contract Documents prior to Project mobilization.
- 1.5.2. Mandatory Attendance: Construction Manager, Project Engineer, Inspector of Record, Architect of Record, Contractor, Contractor's Project Manager, and Contractor's Job/Project Superintendent.
- 1.5.3. Optional Attendance: Architect's consultants, and utility company representatives.
- 1.5.4. Construction Manager shall preside at conference and the Project Architect shall prepare and record minutes and distribute copies.
- 1.5.5. Agenda:
  - 1.5.5.1. Execution of Owner-Contractor Agreement.
  - 1.5.5.2. Issue Notice to Proceed.
  - 1.5.5.3. Submission of executed bonds and insurance certificates.
  - 1.5.5.4. Distribution of Contract Documents.
  - 1.5.5.5. Submission of list of Subcontractors, list of Products, Schedule of Values, and Progress Schedule.
  - 1.5.5.6. Designation of responsible personnel representing the parties.
  - 1.5.5.7. Procedures for processing Change Orders.
  - 1.5.5.8. Procedures for Request for Information.
  - 1.5.5.9. Procedures for testing and inspecting.
  - 1.5.5.10. Procedures for processing applications for payment.
  - 1.5.5.11. Procedures for Project closeout.
  - 1.5.5.12. Use of Premises.
  - 1.5.5.13. Work restrictions.
  - 1.5.5.14. SCCOE's occupancy requirements or options.
  - 1.5.5.15. Responsibility for temporary facilities and controls.
  - 1.5.5.16. Construction waste management and recycling.
  - 1.5.5.17. Parking availability.

1.5.5.18. Office, work and storage areas.

1.5.5.19. Equipment deliveries and priority.

1.5.5.20. Security.

1.5.5.21. Progress cleaning.

1.5.5.22. Review required submittals and (if applicable) LEED Certification requirements.

## **1.6. PROGRESS MEETINGS**

1.6.1. Construction Manager shall schedule and administer meetings throughout progress of the Work at a minimum of every week.

1.6.2. Construction Manager or Project Engineer will make arrangements for meetings, prepare agenda, and preside at meetings. Project Architect shall record minutes (Field Reports), and distribute copies.

1.6.3. Attendance Required: Job Superintendent, Construction Manager, Project Engineer, Project Inspector, Architect of Record, Subcontractors, and suppliers as appropriate to agenda topics for each meeting.

1.6.4. Agenda:

1.6.4.1. Review minutes of previous meetings (Field Reports).

1.6.4.2. Review of Work progress.

1.6.4.3. Field observations, problems, and decisions.

1.6.4.4. Identification of problems which impede planned progress.

1.6.4.5. Review of submittals schedule and status of submittals.

1.6.4.6. Review of off-site fabrication and delivery schedules.

1.6.4.7. Maintenance of construction schedule.

1.6.4.8. Corrective measures to regain projected schedules.

1.6.4.9. Planned progress during succeeding work period.

1.6.4.10. Coordination of projected progress.

1.6.4.11. Maintenance of quality and work standards.

1.6.4.12. Effect of proposed changes on progress schedule and coordination.

1.6.4.13. Other business relating to Work.

1.6.5. SCCOE has authority to schedule mandatory meetings other than those listed, as

necessary.

**1.7. PRE-INSTALLATION CONFERENCES**

- 1.7.1. When required in individual specification section, Contractor shall convene a pre-installation conference prior to commencing Work of the section. Refer to individual specification section for timing requirements of conference.
- 1.7.2. Contractor shall require its Subcontractors and suppliers directly affecting, or affected by, Work of the specific section to attend.
- 1.7.3. Notify the Construction Manager, Project Engineer, Inspector of Record, and Architect of Record four (4) days in advance of meeting date.
- 1.7.4. A pre-installation conference may coincide with a regularly scheduled progress meeting.
- 1.7.5. Contractor shall prepare agenda, preside at conference, record minutes, and distribute copies within two (2) days after conference to participants.
- 1.7.6. The purpose of the meeting will be to review Contract Documents, conditions of installation, preparation and installation procedures, and coordination with related Work and manufacturer's recommendations.
- 1.7.7. Pre-installation Schedule: As a minimum, Work being installed under the Contract Documents technical sections will require pre-installation conferences. Contractor shall review the technical specifications and add all additional requirements for pre-installation meetings contained in those sections.

**1.8. POST CONSTRUCTION DEDICATION**

- 1.8.1. Attendance Required: Project Superintendent, Contractor, Project Manager, major Subcontractors, Construction Manager, Project Engineer, Project Inspector, and Architect of Record.
- 1.8.2. Preparation prior to Dedication: Contractor and appropriate Subcontractors and suppliers shall:
- 1.8.3. Assist SCCOE in operation of mechanical devices and systems.
  - 1.8.3.1. Verify operation and adjust controls for communication systems.
  - 1.8.3.2. Assist SCCOE in operation of lighting systems.

**END OF DOCUMENT**

**DOCUMENT 01 32 16**

**CONSTRUCTION SCHEDULE – NETWORK ANALYSIS**

**1. GENERAL**

**1.1. RELATED DOCUMENTS AND PROVISION**

Contractor shall review all Contract Documents for applicable provisions related to the provisions in this document, including without limitation:

- 1.1.1. General Conditions;
- 1.1.2. Special Conditions (if any);
- 1.1.3. Supplemental Conditions (if any);
- 1.1.4. Coordination and Meetings; and
- 1.1.5. Submittals.

**1.2. REFERENCES**

- 1.2.1. Construction Planning and Scheduling Manual - A Manual for General Contractors and the Construction Industry, The Associated General Contractors of America (AGC).
- 1.2.2. CSI - Construction Specifications Institute MP-2-1 Master Format.
- 1.2.3. U.S. National Weather Service - Local Climatological Data.

**1.3. PERFORMANCE REQUIREMENTS**

- 1.3.1. Ensure adequate scheduling during construction activities so Work may be prosecuted in an orderly and expeditious manner within stipulated Contract Time.
- 1.3.2. Ensure coordination of Contractor and Subcontractors at all levels.
- 1.3.3. Ensure coordination of submittals, fabrication, delivery, erection, installation, and testing of products, materials and equipment.
- 1.3.4. Ensure on-time delivery of SCCOE furnished products, materials and equipment.
- 1.3.5. Ensure coordination of jurisdictional reviews.
- 1.3.6. Prepare applications for payment.
- 1.3.7. Monitor progress of Work.
- 1.3.8. Prepare proper requests for changes to Contract Time.
- 1.3.9. Prepare proper requests for changes to Construction Schedule.
- 1.3.10. Assist in detection of schedule delays and identification of corrective actions.

#### **1.4. QUALITY ASSURANCE**

- 1.4.1. Perform scheduling work in accordance with Construction Planning and Scheduling Manual published by the AGC.
- 1.4.2. Maintain one copy of Construction Planning and Scheduling Manual on Site.
- 1.4.3. In the event of discrepancy between the AGC publication and the Contract Documents, provisions of the Contract Documents shall govern.

#### **1.5. QUALIFICATIONS**

##### **1.5.1. Scheduler:**

- 1.5.1.1. Contractor shall retain a construction scheduler to work in enough capacity to perform all of the Contractor's requirements to prepare the Construction Schedule. The Scheduler shall plan, coordinate, execute, and monitor a cost/resource loaded CPM schedule as required for Project and have a minimum of five (5) years direct experience using Primavera Project Management.
- 1.5.1.2. Scheduler will cooperate with SCCOE and shall be available on site for monitoring, maintaining and updating schedules in a timely manner.
- 1.5.1.3. SCCOE has the right to reject the Scheduler based upon a lack of experience as required by this Document or based on lack of performance and timeliness of schedule submittals/fragnets on past projects. Contractor shall within seven (7) calendar days of SCCOE's rejection, propose another scheduler who meets the experience requirements stated above.

- 1.5.2. **Administrative Personnel:** Five (5) years minimum experience in using and monitoring schedules on comparable projects.

#### **1.6. SUBMITTALS**

- 1.6.1. Submit Short Interval Schedule at each Construction Progress Meeting.
- 1.6.2. Submit Time Adjustment Schedule within five (5) days of commencement of a claimed delay.
- 1.6.3. Submit Recovery Schedules as required for timely completion of Work or when demanded by the SCCOE.
- 1.6.4. Submit job cost reports when demanded by the SCCOE.
- 1.6.5. Submit one (1) reproducible and two (2) copies of each schedule and cost report.

#### **1.7. REVIEW AND EVALUATION**

- 1.7.1. Contractor shall participate in joint review of Construction Schedule and Reports with SCCOE and Architect.

- 1.7.2. Within seven (7) days of receipt of SCCOE and/or Architect's comments provide satisfactory revision to Construction Schedule or adequate justification for activities in question.
- 1.7.3. In the event that an activity or element of Work is not detected by SCCOE or Architect review, such omission or error shall be corrected by next scheduled update and shall not affect Contract Time.
- 1.7.4. Acceptance by SCCOE of corrected Construction Schedule shall be a condition precedent to making any progress payments.
- 1.7.5. Cost-loaded values of Construction Schedule shall be basis for determining progress payments.
- 1.7.6. Review and acceptance by SCCOE and Architect of Preliminary Construction Schedule or Construction Schedule does not constitute responsibility whatsoever for accuracy or feasibility of schedules nor does such acceptance expressly or impliedly warrant, acknowledge or admit reasonableness of activities, logic, duration, manpower, cost or equipment loading stated or implied on schedules.

#### **1.8. FORMAT**

- 1.8.1. Prepare diagrams and supporting mathematical analyses using Precedence Diagramming Method, under concepts and methods outlined in AGC Construction Planning and Scheduling Manual, or other method pre-approved by SCCOE.
- 1.8.2. **Listings:** Reading from left to right, in ascending order for each activity.
- 1.8.3. **Diagram Size:** 42 inches maximum height x width required.
- 1.8.4. **Scale and Spacing:** To allow for legible notations and revisions.
- 1.8.5. Illustrate order and interdependence of activities and sequence of Work.
- 1.8.6. Illustrate complete sequence of construction by activity.
- 1.8.7. Provide legend of symbols and abbreviations used.

#### **1.9. COST AND SCHEDULE REPORTS**

- 1.9.1. **Activity Analysis:** Tabulate each activity of network diagram and identify for each activity:
  - 1.9.1.1. Description.
  - 1.9.1.2. Interface with outside contractors or agencies.
  - 1.9.1.3. Number.
  - 1.9.1.4. Preceding and following number.

- 1.9.1.5. Duration.
- 1.9.1.6. Earliest start date.
- 1.9.1.7. Earliest finish date.
- 1.9.1.8. Actual start date.
- 1.9.1.9. Actual finish date.
- 1.9.1.10. Latest start date.
- 1.9.1.11. Latest finish date.
- 1.9.1.12. Total and free float.
- 1.9.1.13. Identification of critical path activity.
- 1.9.1.14. Monetary value keyed to Schedule of Values.
- 1.9.1.15. Manpower requirements.
- 1.9.1.16. Responsibility.
- 1.9.1.17. Percentage complete.
- 1.9.1.18. Variance positive or negative.

1.9.2. **Cost Report:** Tabulate each activity of network diagram and identify for each activity:

- 1.9.2.1. Description.
- 1.9.2.2. Number.
- 1.9.2.3. Total cost.
- 1.9.2.4. Percentage complete.
- 1.9.2.5. Value prior to current period.
- 1.9.2.6. Value this period.
- 1.9.2.7. Value to date.

1.9.3. **Required Sorts:** List activities in sorts or groups:

- 1.9.3.1. By activity number.
- 1.9.3.2. By amount of float time in order of early start.
- 1.9.3.3. By responsibility in order of earliest start date.

1.9.3.4. In order of latest start dates.

1.9.3.5. In order of latest finish dates.

1.9.3.6. Application for payment sorted by Schedule of Values.

1.9.3.7. Listing of activities on critical path.

1.9.4. Listing of basic input data which generates schedule.

## **1.10. CONSTRUCTION SCHEDULE**

1.10.1. Contractor shall develop and submit a cost loaded preliminary schedule of construction (or Preliminary Construction Schedule) as required by this Document and the Contract Documents. It shall be submitted in computer generated network format and shall be organized by Activity Codes representing the intended sequencing of the Work, and with time scaled network diagrams of activities. The Preliminary Construction Schedule shall include activities such as mobilization, preparation of submittals, specified review periods, procurement items, fabrication items, milestones, and all detailed construction activities.

1.10.2. Upon SCCOE's acceptance of the Preliminary Construction Schedule, Contractor shall update the accepted Preliminary Construction Schedule until Contractor's Construction Schedule is fully developed and accepted. Since updates to the Construction Schedule are the basis for payment to Contractor, submittal and acceptance of the Construction Schedule and updates shall be a condition precedent to making of monthly payments, as indicated in the General Conditions.

1.10.3. Failure to submit an adequate or accurate Preliminary Construction Schedule, Construction Schedule, updates thereto or failure to submit on established dates, will be considered a breach of Contract.

1.10.4. Failure to include any activity shall not be an excuse for completing all Work by required Completion Date.

1.10.5. Activities of long intervals shall be broken into increments no longer than fourteen (14) days or a value over \$20,000.00, unless approved by the SCCOE or it is a non-construction activity for procurement and delivery.

1.10.6. The Construction Schedule shall comply with the following and include the following:

1.10.6.1. Provide a written narrative describing Contractor's approach to mobilization, procurement, and construction during the first thirty (30) calendar days including crew sizes, equipment and material delivery, Site access, submittals, and permits.

1.10.6.2. Shall designate critical path or paths.

1.10.6.3. Procurement activities to include mobilization, shop drawings and sample submittals.

1.10.6.4. Identification of key and long-lead elements and realistic delivery dates.



1.10.6.5. Construction activities in units of whole days limited to fourteen (14) days for each activity except non-construction activities for procurement and delivery.

1.10.6.6. Approximate cost and duration of each activity.

1.10.6.7. Shall contain seasonal weather considerations.

1.10.6.8. Indicate a date for Project Completion that is no later than Completion Date subject to any time extensions processed as part of a Change Order.

1.10.6.9. Conform to mandatory dates specified in the Contract Documents.

1.10.6.10. Contractor shall allow for inclement weather in the Proposed Baseline Schedule by incorporating an activity titled "Rain Day Impact Allowance" as the last activity prior to the Completion Milestone. No other activities may be concurrent with it. The duration of the Rain Day Impact Allowance activity will be in accordance with the Special Conditions, and will be calculated from the Notice to Proceed until the Completion.

1.10.6.11. Level of detail shall correspond to complexity of work involved.

1.10.6.12. Indicate procurement activities, delivery, and installation of SCCOE furnished material and equipment.

1.10.6.13. Designate critical path or paths.

1.10.6.14. Subcontractor work at all levels shall be included in schedule.

1.10.6.15. As developed, shall show sequence and interdependence of activities required for complete performance of Work.

1.10.6.16. Shall be logical and show a coordinated plan of Work.

1.10.6.17. Show order of activities and major points of interface, including specific dates of completion.

1.10.6.18. Duration of activities shall be coordinated with Subcontractors and suppliers and shall be best estimate of time required.

1.10.6.19. Shall show description, duration and float for each activity.

1.10.7. **Activity.** An activity shall meet the following criteria:

1.10.7.1. Any portion or element of Work, action, or reaction that is precisely described, readily identifiable, and is a function of a logical sequential process.

1.10.7.2. Descriptions shall be clear and concise. Beginning and end shall be readily verifiable. Starts and finishes shall be scheduled by logical restraints.

1.10.7.3. Responsibility shall be identified with a single performing entity.

1.10.7.4. Additional codes shall identify building, floor, bid opening and/or SCCOE's receipt of proposals, whichever is acceptable and CSI classification.

1.10.7.5. Assigned dollar value (cost-loading) of each activity shall cumulatively equal total contract amount. Mobilization, bond and insurance costs shall be separate. General requirement costs, overhead, profit, shall be prorated throughout all activities. Activity costs shall correlate with Schedule of Values.

1.10.7.6. Each activity shall have manpower-loading assigned.

1.10.7.7. Major construction equipment shall be assigned to each activity.

1.10.7.8. Activities labeled start, continue or completion are not allowed.

1.10.8. **Equipment and Materials.** For major equipment and materials show a sequence of activities including:

1.10.8.1. Preparation of shop drawings and sample submissions.

1.10.8.2. Review of shop drawings and samples.

1.10.8.3. Finish and color selection.

1.10.8.4. Fabrication and delivery.

1.10.8.5. Erection or installation.

1.10.8.6. Testing.

1.10.9. Include a minimum of fifteen (15) days prior to Completion Date for punch lists and clean up. No other activities shall be scheduled during this period.

#### **1.11. SHORT INTERVAL SCHEDULE**

1.11.1. The Four-Week Rolling Schedule shall be based on the most recent SCCOE Accepted Construction Schedule or Update. It shall include weekly updates to all construction, submittal, fabrication/procurement, and separate Work Contract activities. Contractor shall ensure that it accurately reflects the current progress of the Work.

1.11.2. Shall be fully developed horizontal bar-chart-type schedule directly derived from Construction Schedule.

1.11.3. Prepare schedule on sheet of sufficient width to clearly show data.

1.11.4. Provide continuous heavy vertical line identifying first day of week.

1.11.5. Provide continuous subordinate vertical line identifying each day of week.

1.11.6. Identify activities by same activity number and description as Construction Schedule.

1.11.7. Show each activity in proper sequence.

- 1.11.8. Indicate graphically sequences necessary for related activities.
- 1.11.9. Indicate activities completed or in progress for previous two (2) week period.
- 1.11.10. Indicate activities scheduled for succeeding three (3) week period.
- 1.11.11. Further detail should be added if necessary to monitor schedule or if requested by SCCOE.

**1.12. REQUESTED TIME ADJUSTMENT SCHEDULE**

- 1.12.1. Updated Construction Schedule shall not show a Completion Date later than the Contract Time, subject to any time extensions processed as part of a Change Order.
- 1.12.2. If an extension of time is requested, a separate schedule entitled "Requested Time Adjustment Schedule" shall be submitted to SCCOE and Architect.
- 1.12.3. Indicate requested adjustments in Contract Time which are due to changes or delays in completion of Work.
- 1.12.4. Extension request shall include forecast of Project Completion date and actual achievement of any dates listed in Contract Documents.
- 1.12.5. To the extent that any requests are pending at time of any Construction Schedule update, Time Adjustment Schedule shall also be updated.
- 1.12.6. Schedule shall be a time-scaled network analysis.
- 1.12.7. Accompany schedule with formal written time extension request and detailed impact analysis justifying extension.
- 1.12.8. Time impact analysis shall demonstrate time impact based upon date of delay, and status of construction at that time and event time computation of all affected activities. Event times shall be those as shown in latest Construction Schedule.
- 1.12.9. Activity delays shall not automatically constitute an extension of Contract Time.
- 1.12.10. Failure of Subcontractors shall not be justification for an extension of time.
- 1.12.11. Float is not for the exclusive use or benefit of any single party. Float time shall be apportioned according to needs of Project, as determined by the SCCOE.
- 1.12.12. Float suppression techniques such as preferential sequencing, special lead/lag logic restraints, extended activity durations, or imposed dates shall be apportioned according to benefit of Project.
- 1.12.13. Extensions will be granted only to extent that time adjustments to activities exceed total positive float of the critical path and extends Completion date.
- 1.12.14. SCCOE shall not have an obligation to consider any time extension request unless requirements of Contract Documents, and specifically, but not limited to these requirements, are complied with.

1.12.15. SCCOE shall not be responsible or liable for any construction acceleration due to failure of SCCOE to grant time extensions under Contract Documents should requested adjustments in Contract Time not substantially comply with submission and justification requirements of Contract for time extension requests.

1.12.16. In the event a Requested Time Adjustment Schedule and Time Impact Analysis are not submitted within ten (10) days after commencement of a delay it is mutually agreed that delay does not require a Contract Time extension.

### **1.13. RECOVERY SCHEDULE**

1.13.1. When activities are behind Construction Schedule a supplementary Recovery Schedule shall be submitted.

1.13.2. Contractor shall prepare and submit to the SCCOE a Recovery Schedule whenever activities are behind Construction Schedule or at any time requested by the SCCOE, at no cost to the SCCOE.

1.13.3. Form and detail shall be sufficient to explain and display how activities will be rescheduled to regain compliance with Construction Schedule and to complete the Work by the Completion Date.

1.13.4. Maximum duration shall be one (1) month and shall coincide with payment period.

1.13.5. Ten (10) days prior to expiration of Recovery Schedule, Contractor shall have to show verification to determine if activities have regained compliance with Construction Schedule. Based upon this verification the following will occur:

1.13.5.1. Supplemental Recovery Schedule will be submitted to address subsequent payment period.

1.13.5.2. Construction Schedule will be resumed.

### **1.14. UPDATING SCHEDULES**

1.14.1. Review and update schedules at least ten (10) days prior to submitting an Application for Payment.

1.14.2. Maintain schedules to record actual prosecution and progress.

1.14.3. Approved Change Orders which affect schedules shall be identified as separate new activities.

1.14.4. Change Orders of less than \$5,000.00 value or less than three (3) days duration need not be shown unless critical path is affected.

1.14.5. No other revisions shall be made to schedules unless authorized by SCCOE.

1.14.6. **Schedule Narrative Report:** Contractor shall include a written report to explain the Monthly Schedule Update. The narrative shall, at a minimum, include the following headings with appropriate discussions of each topic:

1.14.6.1. Activities or portions of activities completed during previous reporting period.

1.14.6.2. Actual start dates for activities currently in progress.

1.14.6.3. Deviations from critical path in days ahead or behind.

1.14.6.4. List of major construction equipment used during reporting period and any equipment idle.

1.14.6.5. Number of personnel by trade engaged on Work during reporting period.

1.14.6.6. Progress analysis describing problem areas.

1.14.6.7. Current and anticipated delay factors and their impact.

1.14.6.8. Proposed corrective actions and logic revisions for Recovery Schedule.

1.14.6.9. Proposed modifications, additions, deletions and changes in logic of Construction Schedule.

1.14.6.10. In updating the Schedule, Contractor shall not modify Activity ID numbers, schedule calculation rules/criteria, or the Activity Coding Structure required.

1.14.7. Schedule update will form basis upon which progress payments will be made.

1.14.8. SCCOE will not be obligated to review or process Application for Payment until the Construction Schedule and Schedule Narrative Report have been submitted.

#### **1.15. DISTRIBUTION**

1.15.1. Following joint review and acceptance of updated schedules distribute copies to SCCOE, Architect, and all other concerned parties.

1.15.2. Instruct recipients to promptly report in writing any problem anticipated by projections shown in schedules.

**END OF DOCUMENT**

**DOCUMENT 01 33 00**

**SUBMITTALS**

**1. GENERAL**

**1.1. RELATED DOCUMENTS AND PROVISION**

Contractor shall review all Contract Documents for applicable provisions related to the provisions in this document, including without limitation:

- 1.1.1. General Conditions;
- 1.1.2. Special Conditions;
- 1.1.3. Instructions to Bidders;
- 1.1.4. Summary of Work;
- 1.1.5. Contract Forms and Submittals;
- 1.1.6. Product Options and Substitutions;
- 1.1.7. Requests for Information;
- 1.1.8. Contract Closeout and Final Cleaning;
- 1.1.9. Operation and Maintenance Data;
- 1.1.10. Warranties;
- 1.1.11. Record Documents;
- 1.1.12. Demonstration and Training;

**1.2. DOCUMENT INCLUDES**

- 1.2.1. Submittal procedures – Use of Primavera.
- 1.2.2. Shop drawings.
- 1.2.3. PCM (or other pre-approved program) Electronic Submittal Process
- 1.2.4. Product data.
- 1.2.5. Samples.
- 1.2.6. Manufacturers' Instructions.
- 1.2.7. Manufacturers' Certificates.
- 1.2.8. Mock-Up.

1.2.9. Deferred approval requirements.

**1.3. SUBMITTAL PROCEDURES – USE OF PRIMAVERA OR ANOTHER PRE-APPROVED PROGRAM**

**[N/A]**

- 1.3.1. Contractor shall utilize** for the submittal process **Primavera P6 Project Management® software (latest version) by Oracle (PCM)** or another program if pre-approved by the SCCOE.
- 1.3.2. Contractor shall transmit each submittal in conformance with requirements of this Document. For each submittal, Contractor shall:
- 1.3.2.1. Sequentially number the transmittal forms. Resubmitted submittals must have the original number with an alphabetic suffix;
  - 1.3.2.2. Identify Project and Architect's project number, Contractor, Subcontractor or supplier; pertinent Drawing sheet and detail number(s), and specification Section number, as appropriate;
  - 1.3.2.3. Apply Contractor's stamp, signed or initialed certifying that review, verification of Products required, field dimensions, adjacent construction work, and coordination of information is in accordance with the requirements of the Work and Contract Documents. Submittals without Contractor's stamp and signature will be returned without review.
- 1.3.3. Coordinate preparation and processing of submittals with performance of Work. Transmit each submittal sufficiently in advance of performance of Work to avoid delay.
- 1.3.3.1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
  - 1.3.3.2. Coordinate transmittal of different types of submittals for related parts of Work so processing will not be delayed because of the need to review submittals concurrently for coordination.
  - 1.3.3.3. Architect reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- 1.3.4. Comply with Contract Documents for list of submittals and time requirements for scheduled performance of Work.
- 1.3.5. No extension of Contract Time will be authorized because of failure to transmit submittals to the Architect sufficiently in advance of the Work to permit processing.
- 1.3.6. Identify variations from Contract Documents and Product or system limitations which may be detrimental to successful performance of the completed Work.
- 1.3.7. Provide space for Contractor and Architect review stamps.
- 1.3.8. Revise and resubmit submittals as required, identify all changes made since previous submittal.

- 1.3.9. Distribute copies of reviewed submittals to concerned parties. Instruct parties to promptly report any inability to comply with provisions.
- 1.3.10. Submittals not requested will not be recognized or processed. Submittals not requested will be returned without review.

#### **1.4. SHOP DRAWINGS**

- 1.4.1. Prepare Project-specific information, drawn accurately to scale. Do not reproduce Contract Documents or copy standard information as the basis of shop drawings. Standard information prepared without specific reference to the Project is not a shop drawing.
- 1.4.2. Do not use or allow others to use Shop Drawings which have been submitted and have been rejected.
- 1.4.3. Preparation: Fully illustrate requirements in Contract Documents. Include the following information, as applicable:
  - 1.4.3.1. Dimensions.
  - 1.4.3.2. Identification of products.
  - 1.4.3.3. Fabrication and installation drawings.
  - 1.4.3.4. Roughing-in and setting diagrams.
  - 1.4.3.5. Wiring diagrams showing field-installed wiring, including power, signal, and control wiring.
  - 1.4.3.6. Shopwork manufacturing instructions.
  - 1.4.3.7. Templates and patterns.
  - 1.4.3.8. Schedules.
  - 1.4.3.9. Design calculations.
  - 1.4.3.10. Compliance with specified standards.
  - 1.4.3.11. Notation of coordination requirements.
  - 1.4.3.12. Notation of dimensions established by field measurements.
  - 1.4.3.13. Relationship to adjoining construction clearly indicated.
  - 1.4.3.14. Seal and signature of professional engineer if specified.
  - 1.4.3.15. Wiring Diagrams: Differentiate between manufacturer-installed and field-installed wiring.
  - 1.4.3.16. All deviations from the Contract Documents, clearly indicated.



1.4.3.17. Copy of letter indicating acceptance of deviations indicated on the submittal.

- 1.4.4. Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches (215 by 280 mm) but no larger than 30 by 40 inches (750 by 1000 mm).
- 1.4.5. Do not use Shop Drawings without an appropriate final stamp from the Contractor and SCCOE indicating action taken in connection with construction.
- 1.4.6. Deviations from Contract Documents require specific written acceptance by the SCCOE of the noted deviation and clear indication on the submittal.

## **1.5. ELECTRONIC SUBMITTAL PROCESS**

### **1.5.1. Submittal Procedure for Large Format Shop Drawings.**

- 1.5.1.1. Contractor shall provide six (6) paper copies of the large format Shop Drawings directly to the SCCOE and the Construction Manager (CM) and Contractor will upload/post an electronic transmittal (with a detailed description of the submittal including the subject, specification number and number of drawings) on PCM (or other pre-approved program).
- 1.5.1.2. Contractor shall verify that the Schedule of Submittals and all submittal log(s) on PCM (or other pre-approved program) are accurate and up to date.
- 1.5.1.3. The SCCOE and Architect will review and markup each Submittal and provide changes to Contractor for Contractor's incorporation into the Submittal.
- 1.5.1.4. This process will continue until the Contractor has provided a Submittal that is acceptable to the SCCOE and the Architect.
- 1.5.1.5. Once a Submittal is accepted, the SCCOE will provide a final accepted Submittal to the Contractor and the Contractor will closeout that one Submittal.
- 1.5.1.6. Contractor shall send one (1) copy of the completed record submittal of the large format documents to a vendor (Ford Graphics is suggested) for scanning and posting on PCM (or other pre-approved program).

### **1.5.2. Product Data, Calculations and Small Format Drawings**

- 1.5.2.1. Contractor shall upload/post one (1) electronic copy (from manufacturer's website or pre-scanned) of the product literature, data, calculations, and/or small format shop drawings to PCM (or other pre-approved program) with a Transmittal (with a detailed description of the submittal) directly to the CM.
- 1.5.2.2. The SCCOE and Architect will review and markup each Submittal and provide changes to Contractor for Contractor's incorporation into the Submittal.
- 1.5.2.3. This process will continue until the Contractor has provided a Submittal that is acceptable to the SCCOE and the Architect.

1.5.2.4. Once a Submittal is accepted, the SCCOE will provide a final accepted Submittal to the Contractor and the Contractor will closeout that one Submittal.

1.5.2.5. Contractor shall send one (1) copy of the completed record submittal of the large format documents to a vendor (Ford Graphics is suggested) for scanning and posting on PCM (or other pre-approved program).

**1.5.3. Sample Submittal Procedure – (Product / Assembly Samples)**

1.5.3.1. Contractor shall provide four (4) physical samples directly to the SCCOE and the CM and Contractor will upload/post an electronic transmittal (with a detailed description of the submittal including the subject, specification number and number of drawings) on PCM (or other pre-approved program).

1.5.3.2. The SCCOE and Architect will review and markup each Submittal and provide changes to Contractor for Contractor's incorporation into the Submittal.

1.5.3.3. This process will continue until the Contractor has provided a Submittal that is acceptable to the SCCOE and the Architect.

1.5.3.4. Once a Submittal is accepted, the SCCOE will provide a final accepted Submittal to the Contractor and the Contractor will closeout that one Submittal.

1.5.3.5. Contractor shall send one (1) copy of the completed record submittal of the large format documents to a vendor (Ford Graphics is suggested) for scanning and posting on PCM (or other pre-approved program).

**1.6. PRODUCT DATA**

1.6.1. In addition to the above requirements, mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information unique to this Project.

1.6.2. After review, distribute in accordance with the above provisions and provide copies for Record Documents described in the Contract Documents.

**1.7. SAMPLES**

1.7.1. In addition to the above requirements, submit samples to illustrate functional and aesthetic characteristics of the Product in accordance with this Document, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.

1.7.2. Where specific colors or patterns are not indicated, provide materials and products specified in the full range of color, texture and pattern for selection by SCCOE. Range shall include standard stocked color/texture/pattern, standard color/texture/pattern not stocked, but available from manufacturer, and special color/ texture/pattern available from manufacturer as advertised in product data and brochures. Unless otherwise indicated in individual specification sections, SCCOE may select from any range at no additional cost to SCCOE.

1.7.3. Include identification on each sample, with full Project information.

- 1.7.4. Submit the number of samples that Contractor requires, plus one that will be retained by Architect and one by SCCOE.
- 1.7.5. Reviewed samples which may be used in the Work are indicated in individual specification Sections.

**1.8. MANUFACTURERS' INSTRUCTIONS**

- 1.8.1. When specified in individual specification Sections, submit manufacturers' printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing, in quantities specified for Product Data.
- 1.8.2. Identify conflicts between manufacturers' instructions and Contract Documents.

**1.9. MANUFACTURERS' CERTIFICATES**

- 1.9.1. When specified in individual specification Sections, submit manufacturers' certificates to Architect for review, in quantities specified for Product Data.
- 1.9.2. Indicate material or Product conforms to or exceeds specified requirements. Submit supporting reference date, affidavits, and certifications as appropriate.
- 1.9.3. Certificates may be recent or previous test results on material or Product, but must be acceptable to SCCOE.

**1.10. MOCK-UP**

- 1.10.1. Where indicated, provide mock-ups as required. Mock-ups shall be prepared per the specifications and shall accurately and reasonably represent the quality of construction the Contractor will provide. If the mock-up or portions thereof do not adequately represent the quality of the work specified, the Contractor shall modify the mock-up as needed.
- 1.10.2. Once completed to the SCCOE's satisfaction, the mock-up shall serve as the standard of quality for the work.
- 1.10.3. All mock-ups, at SCCOE's option, shall remain the property of the SCCOE. If not required by the SCCOE, Contractor shall remove and dispose of the mock-up.
- 1.10.4. Where indicated, on-site mock-ups, if accepted, may be integrated into the Work.

**1.11. DEFERRED APPROVAL REQUIREMENTS**

- 1.11.1. Installation of deferred approval items shall not be started until detailed plans, specifications, and engineering calculations have been accepted and signed by the Architect or Engineer in general responsible charge of design and signed by a California registered Architect or professional engineer who has been delegated responsibility covering the work shown on a particular plan or specification and approved by the agency having authority (e.g., State Fire Marshall, Division of the State Architect, gas company, electrical utility company, water SCCOE, etc.). Deferred approval items for this Project are as indicated in the Summary of Work.

- 1.11.2. Unless otherwise indicated in the Contract Documents or if SCCOE provides written approval of a longer time period, Contractor shall submit all deferred approval items for approval within thirty (30) days of the notice to proceed with the Construction Phase.
- 1.11.3. Deferred approval drawings and specifications become part of the approved documents for the Project when they are submitted to and approved by the agency having authority.
- 1.11.4. Submit material using electronic submittal process as defined above.
- 1.11.5. Identify and specify all supports, fasteners, spacing, penetrations, etc., for each of the deferred approval items, including calculations for each and all fasteners.
- 1.11.6. Submit documents to Architect for review prior to forwarding to the agency having authority.
- 1.11.7. Documents shall bear the stamp and signature of the Structural, Mechanical, or Electrical Engineer licensed in the State of California who is responsible for the work shown on the documents.
- 1.11.8. Architect and its subconsultants will review the documents only for conformance with design concept shown on the documents. The Architect will then forward the Submittal to agency having authority for approval.
- 1.11.9. Contractor shall respond to review comments made by agency having authority and revise and resubmit submittal to the Architect for re-submittal to agency having authority for final approval.

**END OF DOCUMENT**

**QUALITY REQUIREMENTS**

**1. GENERAL**

**1.1. RELATED DOCUMENTS AND PROVISIONS**

Contractor shall review all Contract Documents for applicable provisions related to the provisions in this document, including without limitation:

- 1.1.1. General Conditions;
- 1.1.2. Special Conditions (if any);
- 1.1.3. Supplemental Conditions (if any);
- 1.1.4. Drawings;
- 1.1.5. Construction Schedule – Network Analysis;
- 1.1.6. General Definitions and References.

**1.2. SUMMARY**

- 1.2.1. This Document includes administrative and procedural requirements for quality assurance and quality control.
- 1.2.2. Testing and inspecting services by the SCCOE are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with the Contract Documents' requirements.
  - 1.2.2.1. Specific quality-assurance and -control requirements for individual construction activities are specified in the Specifications for those activities. Requirements in those Specifications may also cover production of standard products.
  - 1.2.2.2. Specified tests, inspections, and related actions do not limit Contractor's other quality-assurance and -control procedures that facilitate compliance with the Contract Documents' requirements.
  - 1.2.2.3. Requirements for Contractor to provide quality-assurance and -control services required by SCCOE, SCCOE's consultants, or authorities having jurisdiction are not limited by provisions of this Document.

**1.3. DEFINITIONS**

- 1.3.1. 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.
- 1.3.2. 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 SCCOE or its consultants.

- 1.3.3. Mock-ups: Full-size, physical assemblies that are constructed on-site. Mock-ups are used to verify selections made under sample submittals, to demonstrate aesthetic effects and, where indicated, qualities of materials and execution, and to review construction, coordination, testing, or operation; they are not Samples. Approved mock-ups establish the standard by which the Work will be judged.
- 1.3.4. Laboratory Mock-ups: Full-size, physical assemblies that are constructed at testing facility to verify performance characteristics.
- 1.3.5. 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.
- 1.3.6. Product Testing: Tests and inspections that are performed by an NRTL (National Recognized Testing Laboratory), an NVLAP (National Voluntary Laboratory Accreditation Program), or a testing agency qualified to conduct product testing and acceptable to authorities having jurisdiction, to establish product performance and compliance with industry standards.
- 1.3.7. Source Quality-Control Testing: Tests and inspections that are performed at the source, i.e., plant, mill, factory, or shop.
- 1.3.8. Field Quality-Control Testing: Tests and inspections that are performed on-site for installation of the Work and for completed Work.

#### **1.4. CONFLICTING REQUIREMENTS**

- 1.4.1. 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 SCCOE for a decision before proceeding.
- 1.4.2. 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 SCCOE for a decision before proceeding.

#### **1.5. SUBMITTALS**

- 1.5.1. Qualification Data: For testing agencies specified in "Quality Assurance" below to demonstrate their capabilities and experience. Include proof of qualifications in the form of a recent report on the inspection of the testing agency by a recognized authority.
- 1.5.2. Schedule of Tests and Inspections: Prepare in tabular form and include the following:
  - 1.5.2.1. Specification number and title.
  - 1.5.2.2. Description of test and inspection.
  - 1.5.2.3. Identification of applicable standards, codes or regulations.
  - 1.5.2.4. Identification of test and inspection methods.

- 1.5.2.5. Number of tests and inspections required.
- 1.5.2.6. Time schedule or time span for tests and inspections.
- 1.5.2.7. Entity responsible for performing tests and inspections.
- 1.5.2.8. Requirements for obtaining samples.
- 1.5.2.9. Unique characteristics of each quality-control service.
- 1.5.3. Reports: Prepare and submit certified written reports that include the following:
  - 1.5.3.1. Date of issue.
  - 1.5.3.2. Project title and number.
  - 1.5.3.3. Name, address, and telephone number of testing agency.
  - 1.5.3.4. Dates and locations of samples and tests or inspections.
  - 1.5.3.5. Names of individuals making tests and inspections.
  - 1.5.3.6. Description of the Work and test and inspection method.
  - 1.5.3.7. Identification of product and Specification.
  - 1.5.3.8. Complete test or inspection data.
  - 1.5.3.9. Test and inspection results and an interpretation of test results.
  - 1.5.3.10. Record of temperature and weather conditions at time of sample taking and testing and inspecting.
  - 1.5.3.11. Comments or professional opinion on whether tested or inspected Work complies with the Contract Documents' requirements.
  - 1.5.3.12. Name and signature of laboratory inspector.
  - 1.5.3.13. Recommendations on retesting and reinspecting.
  - 1.5.3.14. Descriptions of deficiencies noted, and corrective action undertaken to resolve such deficiencies.
    - 1.5.3.14.1. Deficiencies observed shall immediately be brought to the attention of the Contractor's field superintendent, and trade foreman. In the event deficiencies are not corrected, or if an interpretation of the Contract Documents is required, the Testing Agency shall immediately notify the SCCOE and applicable consultant, Architect, or Engineer.
    - 1.5.3.14.2. The Testing Agency shall maintain a deficiency list of all items not corrected and shall reinspect the area after the deficiency has been corrected. The list shall include a description of the deficiency, the date and time the deficiency was observed,

who was notified, the date of reinspection and description of any corrective action taken. Distribute the deficiency list at least once per month.

1.5.3.15.15. At the end of the Project, the Testing Agency shall submit a final signed report stating whether the work tested and inspected conforms to the Contract Documents' requirements.

1.5.4. Permits, Licenses, and Certificates: For SCCOE'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**

1.6.1. General: Qualifications paragraphs in this Article establish the minimum qualification levels required; individual Specifications specify additional requirements.

1.6.2. 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. Where required by the individual Specifications, Installer employing workers trained and approved by manufacturer, Installer being acceptable to manufacturer, and/or Installer being an authorized representative of manufacturer for both installation and maintenance.

1.6.3. Manufacturer Qualifications: A firm experienced in manufacturing products or systems similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.

1.6.4. Fabricator Qualifications: A firm experienced in producing products similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.

1.6.5. Professional Engineer Qualifications: A professional engineer who is legally qualified to practice in the State of California, and who is experienced in providing engineering services of the kind indicated.

1.6.6. Engineering services are defined as those performed for installations of the system, assembly, or products that are similar to those indicated for this Project in material, design, and extent.

1.6.7. Specialists: Certain Specifications may 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.

1.6.7.1. Requirement for specialists shall not supersede building codes or regulations governing the Work.

1.6.8. Testing Agency Qualifications: An NRTL, an NVLAP, Division of the State of Architect's Accepted Laboratory, or an independent agency with the experience and capability to conduct testing and inspecting indicated; and with additional qualifications stated in



individual Specifications; and where required by and acceptable to authorities having jurisdiction.

1.6.8.1. NRTL: A Nationally Recognized Testing Laboratory according to 29 CFR 1910.7.

1.6.8.2. NVLAP: A testing agency accredited according to NIST's (National Institute of Standards and Technology) National Voluntary Laboratory Accreditation Program.

1.6.8.3. Tests shall be made by an accredited testing agency with a minimum of 5 years of experience in the specific type of testing to be performed. Except as otherwise provided, sampling and testing of all materials and the laboratory methods and testing equipment shall be in accordance with the applicable standards and methods of the California Building Standards code.

1.6.8.4. For each type of inspection and testing service to be performed, the Testing Agency shall submit certification, signed and sealed by the Agency's professional engineer, of compliance with all applicable requirements of the following:

1.6.8.4.1. ASTM E329, "Specification for Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction."

1.6.8.4.2. "Recommended Requirements for Independent Laboratory Qualifications" published by the American Council of Independent Laboratories.

1.6.8.5. Furnish written certification to the SCCOE that all equipment to be used has been calibrated in accordance with applicable ASTM standards within the last year and is in proper working order.

1.6.8.6. Testing Agency Personnel Qualifications: Testing and inspection services shall be performed only by trained and experienced technicians currently qualified for the work they are to perform. Documentation of such training and experience shall be submitted to the SCCOE and/or its consultants upon request.

1.6.8.7. Each independent inspection and testing agency engaged on the Project shall be authorized by authorities having jurisdiction to operate in the state where the Project is located.

1.6.8.8. 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.

1.6.9. Preconstruction Testing: Where a testing agency is indicated to perform preconstruction testing for compliance with specified requirements for performance and test methods, comply with the following:

1.6.9.1. Contractor responsibilities include the following:

1.6.9.1.1. Verify by its Quality Assurance/Quality Control procedures that an element is ready for testing prior to requesting a test.

- 1.6.9.1.2. Provide test specimens representative of proposed products and construction.
- 1.6.9.1.3. Submit specimens in a timely manner with sufficient time for testing and analyzing results to prevent delaying the Work.
- 1.6.9.1.4. Provide sizes and configurations of test assemblies, mock-ups, and laboratory mock-ups to adequately demonstrate capability of products to comply with performance requirements.
- 1.6.9.1.5. Build site-assembled test assemblies and mock-ups using installers who will perform same tasks for Project.
- 1.6.9.1.6. Build laboratory mock-ups at testing facility using personnel, products, and methods of construction indicated for the completed Work.
- 1.6.9.1.7. When testing is complete, remove test specimens, assemblies, mock-ups, and laboratory mock-ups; do not reuse products on Project.
- 1.6.9.2. Testing Agency Responsibilities: Submit a certified written report of each test, inspection, and similar quality-assurance service to SCCOE with copy to Contractor. Interpret tests and inspections and state in each report whether tested and inspected Work complies with or deviates from the Contract Documents' requirements.
- 1.6.10. Mock-ups: Before installing portions of the Work requiring mock-ups, build mock-ups for each form of construction and finish required to comply with the following requirements, using materials indicated for the completed Work:
  - 1.6.10.1. Build mock-ups in location and of size indicated or, if not indicated, as directed by SCCOE or its consultant.
  - 1.6.10.2. Notify SCCOE and its consultants seven (7) days in advance of dates and times when mock-ups will be constructed.
  - 1.6.10.3. Demonstrate the proposed range of aesthetic effects and workmanship.
  - 1.6.10.4. Obtain SCCOE and its consultant's approval of mock-ups before starting work, fabrication, or construction.
    - 1.6.10.4.1. Allow seven (7) days for initial review and each re-review of each mock-up.
  - 1.6.10.5. Incorporate seismic design of nonstructural components as listed in Division 01 Document "Seismic Design Requirements for Non-Structural Components" into mock-ups.
  - 1.6.10.6. Maintain mock-ups during construction in an undisturbed condition as a standard for judging the completed Work.
  - 1.6.10.7. Demolish and remove mock-ups when directed, unless otherwise indicated.

- 1.6.11. Laboratory Mock-Ups: Comply with requirements of preconstruction testing and those specified in individual Specifications in Divisions 02 through 49.

## **1.7. QUALITY CONTROL**

- 1.7.1. SCCOE Responsibilities: Where quality-control services are indicated as SCCOE's responsibility, SCCOE will engage a qualified testing agency to perform these services.
  - 1.7.1.1. SCCOE will furnish Contractor with names, addresses, and telephone numbers of testing agencies engaged and a description of types of testing and inspecting the testing agencies are engaged to perform.
  - 1.7.1.2. Payment for these services will be made from testing and inspecting allowances, as authorized by Change Orders.
  - 1.7.1.3. Costs for retesting and reinspecting construction that replaces or is necessitated by Work that failed to comply with the Contract Documents will be charged to Contractor, and the Guaranteed Maximum Price will be adjusted by Change Order per the Contract Documents.
- 1.7.2. Tests and inspections not explicitly assigned to SCCOE 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.
  - 1.7.2.1. Where services are indicated as Contractor's responsibility, engage a qualified testing agency to perform the quality-control services.
    - 1.7.2.1.1. Contractor shall not employ same entity engaged by SCCOE, unless agreed to in writing by SCCOE.
  - 1.7.2.2. Notify testing agencies at least 24 hours in advance of time when Work that requires testing or inspecting will be performed.
  - 1.7.2.3. Where quality-control services are indicated as Contractor's responsibility, submit a certified written report, in duplicate, of each quality-control service.
  - 1.7.2.4. Testing and inspecting requested by Contractor and not required by the Contract Documents are Contractor's responsibility.
  - 1.7.2.5. Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.
- 1.7.3. 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 Document "Submittal Procedures."
- 1.7.4. Retesting/Reinspecting: Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services, including retesting and reinspecting, for construction that replaced Work that failed to comply with the Contract Documents' requirements.

- 1.7.5. Testing Agency Responsibilities: Cooperate with SCCOE, SCCOE's consultants, and Contractor in performance of duties. Provide qualified personnel to perform required tests and inspections.
  - 1.7.5.1. Notify SCCOE, SCCOE's consultants, and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.
  - 1.7.5.2. Determine the location from which test samples will be taken and in which in-situ tests are conducted.
  - 1.7.5.3. Conduct and interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from requirements.
  - 1.7.5.4. Submit a certified written report, in duplicate, of each test, inspection, and similar quality-control service through Contractor.
  - 1.7.5.5. Do not release, revoke, alter, or increase the Contract Documents' requirements or approve or accept any portion of the Work.
  - 1.7.5.6. Do not perform any duties of Contractor.
- 1.7.6. Associated Services: Cooperate with agencies performing required tests, inspections, and similar quality-control services, and provide reasonable auxiliary services as requested. Notify testing agency sufficiently in advance of operations to permit assignment of personnel. Provide the following:
  - 1.7.6.1. Access to the Work.
  - 1.7.6.2. Incidental labor and facilities necessary to facilitate tests and inspections.
  - 1.7.6.3. Adequate quantities of representative samples of materials that require testing and inspecting. Assist agency in obtaining samples.
  - 1.7.6.4. Facilities for storage and field curing of test samples.
  - 1.7.6.5. Delivery of samples to testing agencies.
  - 1.7.6.6. Preliminary design mix proposed for use for material mixes that require control by testing agency.
  - 1.7.6.7. Security and protection for samples and for testing and inspecting equipment at Project Site.
  - 1.7.6.8. Furnish tools, samples of materials, design mixes, equipment and assistance as requested.
  - 1.7.6.9. Provide and maintain, for the sole use of the Testing Agency, adequate facilities for the safe storage and proper curing of concrete test cylinders on the project site for the first 24 hours after casting as required by ASTM C31, Method of Making and Curing Concrete Test Specimens in the Field.
  - 1.7.6.10. Build and store masonry test prisms in a manner acceptable to the Testing Agency. Prisms to be tested shall remain at the job site until moved by Testing Agency personnel.

- 1.7.6.11. Notify Testing Agency at least 10 working days in advance of any qualification testing for welding required herein.
- 1.7.6.12. Notify Testing Agency at least 24 hours prior to expected time for operations requiring testing or inspection services.
- 1.7.6.13. Make arrangements with the Testing Agency and pay for additional samples and tests made for the Contractor's convenience or for retesting of failed samples.
- 1.7.6.14. For deficiencies requiring corrective action, submit in writing a description of the deficiency and a proposed correction to the SCCOE. After review and approval, the proposed corrective action shall be implemented and inspected by the Testing Agency. It is Contractor's responsibility to ascertain that the deficiency is corrected and inspected prior to the work being covered.
- 1.7.6.15. Retention of an independent Testing Agency by the SCCOE shall in no way relieve Contractor of responsibility for performing all work in accordance with the Contract Documents' requirements.
- 1.7.7. 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.
  - 1.7.7.1. Schedule times for tests, inspections, obtaining samples, and similar activities.

## **1.8. TESTS AND SPECIAL INSPECTIONS**

- 1.8.1. Tests and Special Inspections: SCCOE will engage a qualified testing agency to conduct tests and special inspections required by authorities having jurisdiction.
  - 1.8.1.1. See form DSA-103 Required Tests and Inspections, approved by DSA as part of the Construction Documents, to determine required inspections.
- 1.8.2. Special Tests and Inspections: Conducted by a qualified testing agency as required by authorities having jurisdiction, as indicated in individual Specifications, and as follows:
  - 1.8.2.1. Verifying that manufacturer maintains detailed fabrication and quality-control procedures and reviewing the completeness and adequacy of those procedures to perform the Work.
  - 1.8.2.2. Notifying SCCOE, SCCOE's consultants, and Contractor promptly of irregularities and deficiencies observed in the Work during performance of its services.
  - 1.8.2.3. Submitting a certified written report of each test, inspection, and similar quality-control service to SCCOE, with copy to Contractor and to authorities having jurisdiction.
  - 1.8.2.4. Submitting a final report of special tests and inspections at Project Completion, which includes a list of unresolved deficiencies.
  - 1.8.2.5. Interpreting tests and inspections and stating in each report whether tested and inspected Work complies with or deviates from the Contract Documents.

1.8.2.6. Retesting and reinspecting corrected work.

## **2. PRODUCTS**

### **2.1. GENERAL**

- 2.1.1. Do not use any materials or equipment represented by samples until tests, if required, have been made and the materials or equipment found to be acceptable. Any product which becomes unfit for use after acceptance shall not be incorporated into the Work.

## **3. EXECUTION**

### **3.1. TEST AND INSPECTION LOG**

- 3.1.1. Prepare a record of tests and inspections. Include the following:
  - 3.1.1.1. Date test or inspection was conducted.
  - 3.1.1.2. Description of the Work tested and inspected.
  - 3.1.1.3. Date test or inspection results were transmitted to SCCOE.
  - 3.1.1.4. Identification of testing agency or special inspector conducting test or inspection.
- 3.1.2. Maintain log at Project Site. Post changes and modifications as they occur. Provide access to test and inspection log for SCCOE's reference during normal working hours.

### **3.2. REPAIR AND PROTECTION**

- 3.2.1. General: On completion of testing, inspecting, sample taking, and similar services, repair damaged construction and restore substrates and finishes.
  - 3.2.1.1. Provide materials and comply with installation requirements specified in other Specifications. Restore patched areas and extend restoration into adjoining areas with durable seams that are as invisible as possible.
  - 3.2.1.2. Comply with Document "Cutting and Patching" and all related Contract Documents' requirements.
- 3.2.2. Protect construction exposed by or for quality-control service activities.
- 3.2.3. Repair and protection are Contractor's responsibility, regardless of the assignment of responsibility for quality-control services.

**END OF DOCUMENT**

**DOCUMENT 01 41 00**

**REGULATORY REQUIREMENTS**

**PART 1 - GENERAL**

**1.01 RELATED DOCUMENTS AND PROVISIONS:**

All Contract Documents should be reviewed for applicable provisions related to the provisions in this document, including without limitation:

- A. General Conditions, including, without limitation, Obtaining of Permits and Licenses and Work to Comply with All Applicable Regulations;
- B. Special Conditions;
- C. Quality Control.

**1.02 DESCRIPTION:**

This section covers the general requirements for regulatory requirements pertaining to the Work and is supplementary to all other regulatory requirements mentioned or referenced elsewhere in the Contract Documents.

**1.03 REQUIREMENTS OF REGULATORY AGENCIES:**

- A. All statutes, ordinances, laws, rules, codes, regulations, standards, and the lawful orders of all public authorities having jurisdiction of the Work, are hereby incorporated into these Contract Documents as if repeated in full herein and are intended to be included in any reference to Code or Building Code, unless otherwise specified, including, without limitation, the references in the list below. Contractor shall make available at the Site copies of all the listed documents applicable to the Work as the Owner and/or Architect may request, including, without limitation, applicable portions of the California Code of Regulations ("CCR").
- B. This Project shall be governed by applicable regulations, including, without limitation, the State of California's Administrative Regulations for the Division of the State Architect-Structural Safety (DSA/SS), Chapter 4, Part 1, Title 24, CCR, and the most current version on the date the bids are opened and as it pertains to school construction including, without limitation:

(1) Test and testing laboratory per Section 4-335 (Owner shall pay for the testing laboratory.)

(2) Special inspections per Section 4-333(c).

(3) Verified reports per Section 4-365 & 4-343(c).

(4) Duties of the Architect & Engineers shall be per Section 4-333(a) and 4-341.

(5) Duties of the Contractor shall be per Section 4-343.

(6) Addenda and Change Orders per Section 4-338.

Contractor shall keep and make available a copy of Part 1 and 2 of the most current version of Title 24 at the Site during construction.

- C. Items of deferred approval shall be clearly marked on the first sheet of the Architect's and/or Engineer's approved Drawings. All items later submitted for approval shall be per Title 24 requirements to the DSA.
  - (1) Building Standards Administrative Code, Part 1, Title 24, CCR

(2) California Building Code (CBC), Part 2, Title 24, CCR; (Uniform Building code volumes 1-3 and California Amendments).

(3) California Electrical Code (CEC), Part 3, Title 24, CCR; (National Electrical Code and California Amendments).

(4) California Mechanical Code (CMC), Part 4, Title 24, CCR; (Uniform Mechanical Code and California Amendments).

(5) California Plumbing Code (CPC), Part 5, Title 24, CCR; (Uniform Plumbing Code and California Amendments).

(6) California Fire Code (CFC), Part 9, Title 24, CCR; (Fire Plumbing Code and California Amendments).

(7) California Referenced Standards Code, Part 12, Title 24, CCR.

(8) State Fire Marshal Regulations, Public Safety, Title 19, CCR.

(9) Partial List of Applicable NFPA Standards:

(a) NFPA 13 - Automatic Sprinkler System.

(b) NFPA 14 - Standpipes Systems.

(c) NFPA 17A - Wet Chemical System

(d) NFPA 24 - Private Fire Mains.

(e) (California Amended) NFPA 72 - National Fire Alarm Codes.

(f) NFPA 253 - Critical Radiant Flux of Floor Covering System.

(g) NFPA 2001 - Clean Agent Fire Extinguishing Systems.

(10) California Division of the State Architect interpretation of Regulations.

**PART 2 – PRODUCTS** Not Used.

END OF DOCUMENT



**DOCUMENT 01 42 13**

**ABBREVIATIONS AND ACRONYMS**

**1. GENERAL**

**1.1. RELATED DOCUMENTS AND PROVISIONS**

Contractor shall review all Contract Documents for applicable provisions related to the provisions in this document, including without limitation:

- 1.1.1. General Conditions including without limitation, Contract Terms and Definitions; and
- 1.1.2. Special Conditions (if any);
- 1.1.3. Supplemental Conditions (if any).

**1.2. ABBREVIATIONS AND ACRONYMS FOR STANDARDS AND REGULATIONS**

- 1.2.1. Abbreviations and Acronyms for Standards and Regulations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the standards and regulations as indicated in Thomson Gale™ ([www.gale.com](http://www.gale.com)), Gale Research's "Encyclopedia of Associations" or "Encyclopedia of Associations: National Organizations of the U.S.," or in Columbia Books' "National Trade & Professional Associations of the U.S."
- 1.2.2. Some of the applicable abbreviations and acronyms referenced in the Specifications or other Contract Documents have the following meanings, subject to updates or revisions based on the above-referenced publications:
  - AA: Aluminum Association
  - AAMA: Architectural Aluminum Manufacturers Association
  - AASHTO: American Association of State Highway and Transportation Officials
  - ABPA: Acoustical and Board Products Association
  - ACI: American Concrete Institute
  - AGA: American Gas Association
  - AGC: Associated General Contractors
  - AHC: Architectural Hardware Consultant
  - AI: Asphalt Institute
  - AIA: American Institute of Architects
  - AIEE: American Institute of Electrical Engineers
  - AISC: American Institute of Steel Construction
  - AISI: American Iron and Steel Institute
  - AMCA: Air Moving and Conditioning Association
  - ANSI: American National Standards Institute
  - APA: American Plywood Association
  - ARI: Air Conditioning and Refrigeration Institute
  - ASHRAE: American Society of Heating, Refrigeration and Air Conditioning Engineers
  - ASME: American Society of Mechanical Engineers
  - ASSE: American Society of Structural Engineers
  - ASTM: American Society of Testing and Materials

- AWPB: American Wood Preservers Bureau
- AWPI: American Wood preservers Institute
- AWS: American Welding Society
- AWSC: American Welding Society Code
- AWI: Architectural Woodwork Institute
- AWWA: American Water Works Association
- BIA: Brick Institute of America
- CCR: California Code of Regulations
- CLFMI: Chain Link Fence Manufacturers Institute
- CMG: California Masonry Guild
- CRA: California Redwood Association
- CRSI: Concrete Reinforcing Steel Institute
- CS: Commercial Standards
- CSI: Construction Specifications Institute
- CTI: Cooling Tower Institute
- FGMA: Flat Glass Manufacturer's Association
- FIA: Factory Insurance Association
- FM: Factory Mutual
- FS: Federal Specification
- FTI: Facing Title Institute
- GA: Gypsum Association
- ICC: International Code Council
- IEEE: Institute of Electrical and Electronic Engineers
- IES: Illumination Engineering Society
- LIA: Lead Industries Association
- MIA: Marble Institute of America
- MLMA: Metal Lath Manufacturers Association
- MS: Military Specifications
- NAAMM: National Association of Architectural Metal Manufacturers
- NBHA: National Builders Hardware Association
- NBFU: National Board of Fire Underwriters
- NBS: National Bureau of Standards
- NCMA: National Concrete Masonry Association
- NEC: National Electrical Code
- NEMA: National Electrical Manufacturers Association
- NFPA: National Fire Protection Association/National Forest Products Association
- NMWIA: National Mineral Wool Insulation Association
- NTMA: National Terrazzo and Mosaic Association
- NWMA: National Woodwork Manufacturer's Association
- ORS: Office of Regulatory Services (California)
- OSHA: Occupational Safety and Health Act
- PCI: Precast Concrete Institute
- PCA: Portland Cement Association
- PDCA: Painting and Decorating Contractors of America
- PDI: Plumbing Drainage Institute
- PEI: Porcelain Enamel Institute
- PG&E: Pacific Gas & Electric Company
- PS: Product Standards
- SDI: Steel Door Institute; Steel Deck Institute
- SJI: Steel Joist Institute
- SSPC: Steel Structures Painting Council

- TCA: Tile Council of America
- TPI: Truss Plate Institute
- UBC: Uniform Building Code
- UL: Underwriters Laboratories Code
- UMC: Uniform Mechanical Code
- USDA: United States Department of Agriculture
- VI: Vermiculite Institute
- WCLA: West Coast Lumberman's Association
- WCLB: West Coast Lumber Bureau
- WEUSER: Western Electric Utilities Service Engineering Requirements
- WIC: Woodwork Institute of California
- WPOA: Western Plumbing Officials Association

1.2.3. Additional Abbreviations and Symbols: Refer to the above-referenced publications or to Drawings for additional abbreviations and for symbols.

**END OF DOCUMENT**

**GENERAL DEFINITIONS AND REFERENCES**

**1. GENERAL**

**1.1. RELATED DOCUMENTS AND PROVISION**

Contractor shall review all Contract Documents for applicable provisions related to the provisions in this document, including without limitation:

- 1.1.1. General Conditions including without limitation, Contract Terms and Definitions;
- 1.1.2. Special Conditions (if any);
- 1.1.3. Supplemental Conditions (if any); and
- 1.1.4. Special Conditions.

**1.2. DEFINITIONS**

General: Basic Contract definitions are included in the General Conditions of the Contract for Construction. The following are in addition to those definitions.

- 1.2.1. "Alternate": A cost or credit for certain Work that may be added to or deducted from the Project.
- 1.2.2. "Indicated": Requirements expressed by graphic representations or in written form on Drawings, in Specifications, and in other Contract Documents. Other terms including "shown," "noted," "scheduled," and "specified" have the same meaning as "indicated."
- 1.2.3. "Regulations": Laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, and rules, conventions, and agreements within the construction industry that control performance of the Work.
- 1.2.4. "Furnish": Supply and deliver to Project site, ready for unloading, unpacking, assembly, installation, and similar operations.
- 1.2.5. "Install": Operations at Project site including unloading, temporarily storing, unpacking, assembling, erecting, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations.
- 1.2.6. "Provide": Furnish and install, complete and ready for the intended use.

**1.3. QUALITY ASSURANCE**

- 1.3.1. For products or workmanship specified by association, trade, or Federal Standards, Contractor shall comply with requirements of the standard, except when more stringent requirements are specified in the Contract Documents, or are required by applicable codes.
- 1.3.2. Contractor shall conform to current reference standard publication in effect on the date of bid opening.

- 1.3.3. Unless directed otherwise by the Contract Documents, Contractor shall obtain copies of referenced standards.
- 1.3.4. Unless directed otherwise by the Contract Documents, Contractor shall maintain a copy of referenced standards at jobsite until Completion.
- 1.3.5. If specified standards conflict with Contract Documents, Contractor shall request clarification from the SCCOE or the Architect before proceeding.
- 1.3.6. Governing Codes shall be as shown in the Contract Documents including, without limitation, the Specifications.

#### **1.4. STANDARDS**

- 1.4.1. Standard Specifications: References to codes, specifications and standards referred to in the Contract Documents shall mean, and are intended to be, the latest edition, amendment or revision of such reference standard in effect as of the date of these Contract Documents. If those standard specifications are revised prior to Completion of any part of the Work to which such revision would pertain, Contractor may, if acceptable to and approved by the SCCOE, perform such Work in accordance with the revised standard specifications.
- 1.4.2. Conflicting Requirements: Where compliance with two or more standards is specified, and the standards may establish different or conflicting requirements for minimum quantities or quality levels, refer requirements that are different, but apparently equal, and uncertainties to the SCCOE for a decision before proceeding.
- 1.4.3. 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 the requirements. Refer uncertainties to SCCOE for a decision before proceeding.
- 1.4.4. Copies of Standards: Each entity engaged in construction on the Project is required to be familiar with industry standards applicable to that entity's construction activity. Copies of applicable standards are not bound with the Contract Documents.
- 1.4.5. Copies from the Publication Source: Where copies of standards are needed for performance of a required construction activity, Contractor shall obtain copies directly from the publication source.

#### **1.5. SCHEDULE OF REFERENCES**

**The following information is intended only for the general assistance of Contractor. SCCOE does not represent the accuracy of the information. Contractor shall independently verify the information for each entities listed below:**

AA	Aluminum Association 900 19th Street NW, Suite 300 Washington, DC 20006 <a href="http://www.aluminum.org">www.aluminum.org</a>	202/862-5100
AABC	Associated Air Balance Council 1518 K Street, NW, Suite 503	202/737-0202

	Washington, DC 20005 <a href="http://www.aabchg.com">www.aabchg.com</a>	
AAMA	American Architectural Manufacturers Association 1827 Walden Office Sq., Suite 104 Schaumburg, IL 60173-4268 <a href="http://www.aamanet.org">www.aamanet.org</a>	847/303-5664
AASHTO	American Association of State Highway and Transportation Officials 444 North Capitol Street, Suite 249 Washington, DC 20001 <a href="http://www.aashto.org">www.aashto.org</a>	202/624-5800
AATCC	American Association of Textile Chemists and Colorists P.O. Box 12215 One Davis Drive Research Triangle Park, NC 27709-2215 <a href="http://www.aatcc.org">www.aatcc.org</a>	919/549-8141
ACI	American Concrete Institute P.O. Box 9094 Farmington Hills, MI 48333-9094 <a href="http://www.aci-int.org">www.aci-int.org</a>	248/848-3700
ACPA	American Concrete Pipe Association 222 West Las Colinas Blvd., Suite 641 Irving, TX 75039-5423 <a href="http://www.concrete-pipe.org">www.concrete-pipe.org</a>	972/506-7216
ADC	Air Diffusion Council 11 South LaSalle St., Suite 1400 Chicago, IL 60603 <a href="http://www.flexibleduct.org/index.asp">http://www.flexibleduct.org/index.asp</a>	312/201-0101
AFPA	American Forest and Paper Association 1111 19th St., NW, Suite 800 Washington, DC 20036 <a href="http://www.afandpa.org/">http://www.afandpa.org/</a>	202/463-2700
AGA	American Gas Association 1515 Wilson Blvd. Arlington VA 22209 <a href="http://www.aga.com">www.aga.com</a>	703/841-8400
AHA	American Hardboard Association 1210 W. Northwest Hwy Palatine, IL 60067-1897 <a href="http://domensino.com/AHA/default.htm">http://domensino.com/AHA/default.htm</a>	847/934-8800
AI	Asphalt Institute Research Park Drive P.O. Box 14052 Lexington, KY 40512-4052	606/288-4960

[www.asphaltinstitute.org](http://www.asphaltinstitute.org)

AIA	The American Institute of Architects 1735 New York Avenue, NW Washington, DC 20006-5292 <a href="http://www.aia.org">www.aia.org</a>	202/626-7300
AISC	American Institute of Steel Construction One East Wacker Drive, Suite 3100 Chicago, IL 60601-2001 <a href="http://www.aisc.org/">http://www.aisc.org/</a>	800/644-2400
AITC	American Institute of Timber Construction 7012 S. Revere Pkwy., Suite 140 Englewood, CO 80112 <a href="http://www.aitc-glulam.org">www.aitc-glulam.org</a>	303/792-9559
ALCA	Associated Landscape Contractors of America 12200 Sunrise Valley Drive, Suite 150 Reston, VA 20191 <a href="http://www.alca.org">www.alca.org</a>	703/620-6363
ALI	Associated Laboratories, Inc. P.O. Box 152837 1323 Wall St. Dallas, TX 75315 <a href="http://www.assoc-labs.com/">http://www.assoc-labs.com/</a>	214/565-0593
ALSC	American Lumber Standards Committee P.O. Box 210 Germantown, MD 20875	301/972-1700
AMCA	Air Movement and Control Association International, Inc. 30 W. University Drive Arlington Heights, IL 60004-1893 <a href="http://www.amca.org">www.amca.org</a>	847/394-0150
ANLA	American Nursery and Landscape Association 1250 Eye Street, NW, Suite 500 Washington, DC 20005	202/789-2900
ANSI	American National Standards Institute 11 West 42nd Street, 13th Floor New York, NY 10036-8002 <a href="http://www.ansi.org">www.ansi.org</a>	212/642-4900
APA	APA-The Engineered Wood Association P.O. Box 11700 Tacoma, WA 98411-0700 <a href="http://www.apawood.org">www.apawood.org</a>	206/565-6600
APA	Architectural Precast Association P.O. Box 08669 Fort Myers, FL 33908-0669	941/454-6989

ARI	Air Conditioning and Refrigeration Institute 4301 Fairfax Drive, Suite 425 Arlington, VA 22203 <a href="http://www.ari.org">www.ari.org</a>	703/524-8800
ARMA	Asphalt Roofing Manufacturers Association Center Park 4041 Powder Mill Road, Suite 404 Calverton, MD 20705	301/231-9050
ASA	Acoustical Society of America 500 Sunnyside Blvd. Woodbury, NY 11797	516/576-2360
ASCE	American Society of Civil Engineers- World Headquarters 1801 Alexander Bell Drive Reston, VA 20190-4400 <a href="http://www.asce.org">www.asce.org</a>	800/548-2723 703/295-6000
ASHRAE	American Society of Heating, Refrigerating and Air Conditioning Engineers 1791 Tullie Circle, NE Atlanta, GA 30329-2305 <a href="http://www.ashrae.org">www.ashrae.org</a>	800/527-4723 404/636-8400
ASLA	American Society of Landscape Architects 4401 Connecticut Ave., NW, 5th Floor Washington, DC 20008-2369 <a href="http://www.asla.org">www.asla.org</a>	202/686-2752
ASME	American Society of Mechanical Engineers 345 East 47th Street New York, NY 10017-2392 <a href="http://www.asme.org">www.asme.org</a>	800/434-2763
ASPE	American Society of Plumbing Engineers 3617 Thousand Oaks Blvd., Suite 210 Westlake, CA 91362-3649	805/495-7120
ASQC	American Society for Quality Control 611 E. Wisconsin Avenue Milwaukee, WI 53201-3005 <a href="http://www.asqc.org">www.asqc.org</a>	800/248-1946 414/272-8575
ASSE	American Society of Sanitary Engineering 28901 Clemens Road Westlake, OH 44145 <a href="http://www.asse-plumbing.org">www.asse-plumbing.org</a>	216/835-3040
ASTM	American Society for Testing and Materials 100 Barr Harbor Drive West Conshohocken, PA 19428-2959 <a href="http://www.astm.org">www.astm.org</a>	610/832-9500



AWCI	Association of the Wall and Ceiling Industries--International 307 E. Annandale Road, Suite 200 Falls Church, VA 22042-2433 <a href="http://www.awci.org">www.awci.org</a>	703/534-8300
AWPA	American Wood-Preservers' Association 3246 Fall Creek Highway, Suite 1900 Granbury, TX 76049-7979	817/326-6300
AWS	American Welding Society 550 NW LeJeune Road Miami, FL 33126 <a href="http://www.amweld.org">www.amweld.org</a>	800/443-9373 305/443-9353
AWWA	American Water Works Association 6666 West Quincy Avenue Denver, CO 80235 <a href="http://www.awwa.org">www.awwa.org</a>	800/926-7337 303/794-7711
BHMA	Builders' Hardware Manufacturers Association 355 Lexington Avenue, 17th Floor New York, NY 10017-6603	212/661-4261
CBM	Certified Ballast Manufacturers Association 1422 Euclid Avenue, Suite 402 Cleveland, OH 44115-2094	216/241-0711
CGA	Compressed Gas Association 1725 Jefferson Davis Hwy, Suite 1004 Arlington, VA 22202-4102 <a href="http://www.cganet.com">www.cganet.com</a>	703/412-0900
CISCA	Ceilings & Interior Systems Construction Association 1500 Lincoln Hwy, Suite 202 St. Charles, IL 60174 <a href="http://www.cisca.org">www.cisca.org</a>	630/584-1919
CISPI	Cast Iron Soil Pipe Institute 5959 Shallowford Road, Suite 419 Chattanooga, TN 37421	423/892-0137
CPSC	Consumer Product Safety Commission East West Towers 4330 East-West Hwy. Bethesda, MD 20814	800/638-2772
CPPA	Corrugated Polyethylene Pipe Association 432 N. Superior Street Toledo, OH 43604	800/510-2772 419/241-2221
CRA	California Redwood Association 405 Enfrente Drive, Suite 200	415/382-0662

	Novato, CA 94949	
CRI	Carpet and Rug Institute 310 S. Holiday Avenue Dalton, GA 30722-2048 <a href="http://www.carpet-rug.com">www.carpet-rug.com</a>	800/882-8846 706/278-3176
CRSI	Concrete Reinforcing Steel Institute 933 N. Plum Grove Road Schaumburg, IL 60173-4758 <a href="http://www.crsi.org">www.crsi.org</a>	847/517-1200
CTI	Ceramic Tile Institute of America 12061 W. Jefferson Blvd. Culver City, CA 90230-6219	310/574-7800
DHI	Door and Hardware Institute 14170 Newbrook Drive Chantilly, VA 20151-2223 <a href="http://www.dhi.org">www.dhi.org</a>	703/222-2010
DIPRA	Ductile Iron Pipe Research Association 245 Riverchase Pkwy East, Suite O Birmingham, AL 35244	205/988-9870
DOC	Department of Commerce 14th Street and Constitution Avenue, NW Washington, DC 20230	202/482-2000
DOT	Department of Transportation 400 Seventh Street, SW Washington, DC 20590	202/366-4000
EJMA	Expansion Joint Manufacturers Association 25 N. Broadway Tarrytown, NY 10591-3201	914/332-0040
EPA	Environmental Protection Agency 401 M Street, SW Washington, DC 20460	202/260-2090
FCICA	Floor Covering Installation Contractors Association P.O. Box 948 Dalton, GA 30722-0948	706/226-5488
FM	Factory Mutual 1151 Boston-Providence Turnpike P.O. Box 9102 Norwood, MA 02062-9102 <a href="http://www.factorymutual.com">www.factorymutual.com</a>	781/255-4300
FS	Federal Specifications Unit (Available from GSA) 470 East L'Enfant Plaza, SW, Suite 8100	202/619-8925

Washington, DC 20407

GA	Gypsum Association 810 First Street NE, Suite 510 Washington, DC 20002 <a href="http://www.usg.com">www.usg.com</a>	202/289-5440
GANA	Glass Association of North America 3310 SW Harrison Street Topeka, KS 66611-2279 <a href="http://www.glasswebsite.com/gana">www.glasswebsite.com/gana</a>	913/266-7013
HMA	Hardwood Manufacturers Association 400 Penn Center Blvd., Suite 530 Pittsburgh, PA 15235-5605 <a href="http://www.hardwood.org">www.hardwood.org</a>	412/828-0770
HPVA	Hardwood Plywood and Veneer Association 1825 Michael Farraday Drive P.O. Box 2789 Reston, VA 22195-0789 <a href="http://www.hpva.org">www.hpva.org</a>	703/435-2900
IEEE	Institute of Electrical and Electronic Engineers 345 E. 47th Street New York, NY 10017-2394 <a href="http://www.ieee.org">www.ieee.org</a>	800/678-4333 212/705-7900
IESNA	Illuminating Engineering Society of North America 120 Wall Street, 17th Floor New York, NY 10005-4001 <a href="http://www.iesna.org">www.iesna.org</a>	212/248-5000
ITS	Intertek Testing Services P.O. Box 2040 607/753-6711 3933 US Route 11 Cortland, NY 13045-7902 <a href="http://www.itsglobal.com">www.itsglobal.com</a>	800/345-3851
LMA	Laminating Materials Association 116 Lawrence Street Hillsdale, NJ 07642-2730 <a href="http://www.lma.org">www.lma.org</a>	201/664-2700
MCAA	Mechanical Contractors Association of America 1385 Piccard Drive Rockville, MD 20850-4329	301/869-5800
ML/SFA	Metal Lath/Steel Framing Association (A Division of the NAAMM) 8 South Michigan Avenue, Suite 1000 Chicago, IL 60603	312/456-5590
MSS	Manufacturers Standardization Society for the Valve and Fittings Industry	703/281-6613

127 Park Street, NE  
Vienna, VA 22180-4602

NAA	National Arborist Association P.O. Box 1094 603/673-3311 Amherst, NH 03031-1094 <a href="http://www.natlarb.com">www.natlarb.com</a>	800/733-2622
NAAMM	National Association of Architectural Metal Manufacturers 8 South Michigan Avenue, Suite 1000 Chicago, IL 60603 <a href="http://www.gss.net/naamm">www.gss.net/naamm</a>	312/782-5590
NAIMA	North American Insulation Manufacturers Association 44 Canal Center Plaza, Suite 310 Alexandria, VA 22314 <a href="http://www.naima.org">www.naima.org</a>	703/684-0084
NAPA	National Asphalt Pavement Association NAPA Building 5100 Forbes Blvd. Lanham, MD 20706-4413	301/731-4748
NCSPA	National Corrugated Steel Pipe Association 1255 23rd Street, NW, Suite 850 Washington, DC 20037 <a href="http://www.ncspa.org">www.ncspa.org</a>	202/452-1700
NEBB	National Environmental Balancing Bureau 8575 Grovemont Circle Gaithersburg, MD 20877-4121	301/977-3698
NECA	National Electrical Contractors Association 3 Bethesda Metro Center, Suite 1100 Bethesda, MD 20814-5372	301/657-3110
NEI	National Elevator Industry 185 Bridge Plaza North, Suite 310 Fort Lee, NJ 07024	201/944-3211
NEMA	National Electrical Manufacturers' Association 1300 N. 17th Street, Suite 1847 Rosslyn, VA 22209 <a href="http://www.nema.org">www.nema.org</a>	703/841-3200
NFPA	National Fire Protection Association One Batterymarch Park P.O. Box 9101 Quincy, MA 02269-9101 <a href="http://www.nfpa.org">www.nfpa.org</a>	800/344-3555 617/770-3000
NHLA	National Hardwood Lumber Association P.O. Box 34518	901/377-1818

	Memphis, TN 38184-0518 <a href="http://www.natlhardwood.org">www.natlhardwood.org</a>	
NIA	National Insulation Association 99 Canal Center Plaza, Suite 222 Alexandria, VA 22314 <a href="http://www.insulation.org">www.insulation.org</a>	703/683-6422
NPA	National Particleboard Association 18928 Premiere Court Gaithersburg, MD 20879-1569 <a href="http://www.pbmdf.com">www.pbmdf.com</a>	301/670-0604
NPCA	National Paint and Coatings Association 1500 Rhode Island Avenue, NW Washington, DC 20005-5597 <a href="http://www.paint.org">www.paint.org</a>	202/462-6272
NRCA	National Roofing Contractors Association O'Hare International Center 10255 W. Higgins Road, Suite 600 Rosemont, IL 60018-5607 <a href="http://www.roofonline.org">www.roofonline.org</a>	800/323-9545
NRMCA	National Ready Mixed Concrete Association 900 Spring Street Silver Spring, MD 20910 <a href="http://www.nrmca.org">www.nrmca.org</a>	301/587-1400
NSF	NSF International P.O. Box 130140 Ann Arbor, MI 48113-0140 <a href="http://www.nsf.org">www.nsf.org</a>	313/769-8010
NUSIG	National Uniform Seismic Installation Guidelines 12 Lahoma Court Alamo, CA 94526	510/946-0135
NWWDA	National Wood Window and Door Association 1400 E. Touhy Avenue, G-54 Des Plaines, IL 60018 <a href="http://www.nwwda.org">www.nwwda.org</a>	800/223-2301 847/299-5200
SHA	Occupational Safety and Health Administration (U.S. Department of Labor) 200 Constitution Ave., NW Washington, DC 20210	202/219-8148
PCA	Portland Cement Association 5420 Old Orchard Road Skokie, IL 60077-1083 <a href="http://www.portcement.org">www.portcement.org</a>	847/966-6200
PDCA	Painting and Decorating Contractors of America	800/332-7322 703/359-0826

3913 Old Lee Hwy, Suite 33-B  
 Fairfax, VA 22030  
[www.pdca.com](http://www.pdca.com)

PDI	Plumbing and Drainage Institute 45 Bristol Drive, Suite 101 South Easton, MA 02375	800/589-8956 508/230-3516
RFCI	Resilient Floor Covering Institute 966 Hungerford Drive, Suite 12-B Rockville, MD 20805-1714	301/340-8580
RIS	Redwood Inspection Service c/o California Redwood Association 405 Enfrente Drive, Suite 200 Novato, CA 94949-7206	415/382-0662
SDI	Steel Deck Institute P.O. Box 25 Fox River Grove, IL 60012 <a href="http://www.sdi.org">www.sdi.org</a>	847/462-1930
SDI	Steel Door Institute 30200 Detroit Road Cleveland, OH 44145-1967	216/889-0010
SMA	Stucco Manufacturers Association 14006 Ventura Blvd. Sherman Oaks, CA 91403	213/789-8733
SMACNA	Sheet Metal and Airconditioning Contractors National Association, Inc. P.O. Box 221230 Chantilly, VA 20151-1209 <a href="http://www.smacna.org">www.smacna.org</a>	703/803-2980
SPI	Society of the Plastics Industry, Inc. Spray Polyurethane Division 1801 K Street, NW, Suite 600K Washington, DC 20006 <a href="http://www.socplas.org">www.socplas.org</a>	800/951-2001 202/974-5200
SSPC	Steel Structures Painting Council 40 24th Street, 6th Floor Pittsburgh, PA 15222-4643	412/281-2331
TCA	Tile Council of America 100 Clemson Research Blvd. Anderson, SC 29625	864/646-8453
TPI	Turfgrass Producers International 1855-A Hicks Road Rolling Meadows, IL 60008	800/405-8873 847/705-9898
UL	Underwriters Laboratories, Inc.	800/704-4050

	333 Pfingston Road Northbrook, IL 60062 <a href="http://www.ul.com">www.ul.com</a>	847/272-8800
UNI	Uni-Bell PVC Pipe Association 2655 Villa Creek Drive, Suite 155 Dallas, TX 75234 <a href="http://www.members.aol.com/unibell1">www.members.aol.com/unibell1</a>	972/243-3902
USDA	U.S. Department of Agriculture 14th St. and Independence Ave., SW Washington, DC 20250	202/720-8732
WA	Wallcoverings Association 401 N. Michigan Avenue Chicago, IL 60611-4267	312/644-6610
WCLIB	West Coast Lumber Inspection Bureau P.O. Box 23145 Portland, OR 97281-3145	503/639-0651
WCMA	Window Covering Manufacturers Association 355 Lexington Ave., 17th Floor New York, NY 10017-6603	212/661-4261
WIC	Woodwork Institute of California P.O. Box 980247 West Sacramento, CA 95798-0247	916/372-9943
WLPDIA	Western Lath/Plaster/Drywall Industries Association 8635 Navajo Road San Diego, CA 92119	619/466-9070
WMMPA	Wood Moulding & Millwork Producers Association 507 First Street Woodland, CA 95695 <a href="http://www.wmmpa.com">www.wmmpa.com</a>	800/550-7889 916/661-9591
WRI	Wire Reinforcement Institute 203 Loudoun Street, SW Leesburg, VA 20175-2718	703/779-2339
WWPA	Western Wood Products Association Yeon Building 522 S.W. 5th Avenue Portland, OR 97204-2122	503/224-3930

**END OF DOCUMENT**

**TESTING LABORATORY SERVICES**

**1. GENERAL**

**1.1. RELATED DOCUMENTS AND PROVISION**

Contractor shall review all Contract Documents for applicable provisions related to the provisions in this document, including without limitation:

- 1.1.1. General Conditions, including “Tests and Inspections”; and
- 1.1.2. Special Conditions (if any);
- 1.1.3. Supplemental Conditions (if any).

**1.2. DOCUMENT INCLUDES**

- 1.2.1. Observation and Supervision.
- 1.2.2. Testing Laboratories and Agencies
- 1.2.3. Tests and Inspections
- 1.2.4. Selection and Payment
- 1.2.5. SCCOE's Testing Laboratory Responsibilities
- 1.2.6. Laboratory reports.
- 1.2.7. Limits on testing laboratory authority.
- 1.2.8. Contractor responsibilities.
- 1.2.9. Schedule of inspections and tests.
- 1.2.10. Project Inspector's Access to Site

**1.3. REFERENCES**

- 1.3.1. ASTM D3740 - Practice for Evaluation of Agencies Engaged in Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction.
- 1.3.2. ASTM E329 - Recommended Practice for Inspection and Testing Agencies for Concrete, Steel, and Bituminous Materials as Used in Construction.
- 1.3.3. CBC - California Building Code.
- 1.3.4. UBC - Uniform Building Code.
- 1.3.5. Title 24, Parts 1 and 2, of the California Code of Regulations. Contractor shall keep a copy of these available at the job Site for ready reference during construction



- 1.3.6. DSA - Division of the State Architect, Office of Regulation Services, Structural Safety Section. DSA shall be notified at or before the start of construction.

#### **1.4. OBSERVATION AND SUPERVISION**

- 1.4.1. The SCCOE and Architect or their appointed representatives will review the Work and the Contractor shall provide facilities and access to the Work at all times as required to facilitate this review. Administration by the Architect and any consulting Structural Engineer will be in accordance with applicable regulations, including, without limitation, 24 C.C.R. § 4-341.
- 1.4.2. One or more Project Inspector(s) approved by DSA and employed by or in contract with the SCCOE( "Project Inspector"), will observe the Work in accordance with 24 C.C.R. §§ 4-333(b) and 4-342:
- 1.4.3. Project Inspector shall have access to the Work wherever it is in preparation or progress for ascertaining that the Work is in accordance with the Contract Documents and all applicable code sections. Contractor shall provide facilities and access as required and shall provide assistance for sampling or measuring materials.
- 1.4.3.1. Project Inspector will notify SCCOE and Architect and inform Contractor of any observed failure of Work or material to conform to Contract Documents.
- 1.4.3.2. The Project Inspector shall observe and monitor all testing and inspection activities required.
- 1.4.4. Contractor shall conform with all applicable laws as indicated in the Contract Documents, including, without limitation, to 24 C.C.R. § 4-343. Contractor shall supervise and direct the Work and maintain a competent superintendent on the Project who is authorized to act in all matters pertaining to the Work. The Contractor shall inspect all materials, as they arrive, for compliance with the Contract Documents. Contractor shall reject defective Work or materials immediately upon delivery or failure of the Work or material to comply with the Contract Documents. The Contractor shall submit verified reports as indicated in the Contract Documents, including, without limitation, the Specifications and as required by 24 C.C.R. § 4-336.

#### **1.5. TESTING LABORATORIES AND AGENCIES**

- 1.5.1. Testing agencies and tests shall be in conformance with the Contract Documents and the requirements of 24 C.C.R. § 4-335.
- 1.5.2. Testing and inspection in connection with earthwork shall be under the direction of the SCCOE's consulting soils engineer ("Soils Engineer").
- 1.5.3. Testing and inspection of construction materials and workmanship shall be performed by a qualified laboratory ("Testing Laboratory" or "Laboratory"). The Testing Laboratory shall be under direction of an engineer registered in the State of California, shall conform to requirements of ASTM E329, and shall be employed by or in contract with the SCCOE.

#### **1.6. TESTS AND INSPECTIONS**

- 1.6.1. Contractor shall be responsible for notifying SCCOE and Project Inspector of all required tests and inspections. Contractor shall notify SCCOE and Project Inspector forty-eight (48) hours in advance of performing any Work requiring testing or inspection.
- 1.6.2. Contractor shall provide access to Work to be tested and furnish incidental labor, equipment, and facilities to facilitate all inspections and tests.
- 1.6.3. SCCOE will pay for first inspections and tests required by the Title 24 and other inspections or tests that SCCOE and/or Architect may direct to have made, including, but not limited to, the following principal items:
  - 1.6.3.1. Tests and observations for earthwork and pavings.
  - 1.6.3.2. Tests for concrete mix designs, including tests of trial batches.
  - 1.6.3.3. Tests and inspections for structural steel work.
  - 1.6.3.4. Field tests for framing lumber moisture content.
  - 1.6.3.5. Additional tests directed by SCCOE that establish that materials and installation comply with the Contract Documents.
  - 1.6.3.6. Test and observation of welding and expansion anchors.
  - 1.6.3.7. Factory observation of components and assembly of modular prefabrication structures and buildings.
- 1.6.4. SCCOE may at its discretion, pay and back charge Contractor for:
  - 1.6.4.1. Retests or reinspections, if required, and tests or inspection required due to Contractor error or lack of required identifications of material.
  - 1.6.4.2. Uncovering of work in accordance with Contract Documents.
  - 1.6.4.3. Testing done on weekends, holidays, and overtime will be chargeable to Contractor for the overtime portion.
  - 1.6.4.4. Testing done off site.
- 1.6.5. Testing and inspection reports and certifications:
  - 1.6.5.1. If initially received by Contractor, Contractor shall provide to each of the following a copy of the agency or laboratory report of each test or inspection or certification: SCCOE; Construction Manager, if any; Architect; Consulting Engineer, if any; Other Engineers on the Project, as appropriate; and; Project Inspector.
  - 1.6.5.2. When the test or inspection is one required by the Title 24, a copy of the report shall also be provided to the DSA.

## **1.7. SELECTION AND PAYMENT**

- 1.7.1. SCCOE will hire and pay for services of an independent Testing Laboratory to perform specified inspection and testing as specified by SCCOE's Testing Laboratory.

- 1.7.2. SCCOE's hiring of Testing Laboratory shall in no way relieve Contractor of its obligation to perform work in accordance with requirements of Contract Documents.

#### **1.8. SCCOE'S TESTING LABORATORY RESPONSIBILITIES**

- 1.8.1. Test samples of mixes submitted by Inspector.
- 1.8.2. Perform specified inspection, sampling, and testing of Products in accordance with specified standards.
- 1.8.3. Notify Architect and Contractor of observed irregularities or non-conformance of Work or Products.
- 1.8.4. Attend preconstruction conferences and progress meetings when requested by Architect.

#### **1.9. LABORATORY REPORTS**

- 1.9.1. After each inspection and test, SCCOE shall then submit one copy of laboratory report to Contractor. Reports of test results of materials and inspections found not to be in compliance with the requirements of the Contract Documents shall be forwarded immediately.
- 1.9.2. Each Testing Laboratory shall submit a verified report covering all of the tests which were required to be made by that agency during the progress of the Project. Such report shall be furnished each time that Work is suspended, covering the tests up to that time and at the Completion of the Project, covering all tests.

#### **1.10. LIMITS ON TESTING LABORATORY AUTHORITY**

- 1.10.1. Laboratory may not release, revoke, alter, or enlarge on requirements of Contract Documents.
- 1.10.2. Laboratory may not approve or accept any portion of the Work.
- 1.10.3. Laboratory may not assume any duties of Contractor.
- 1.10.4. Laboratory has no authority to stop the Work.

#### **1.11. CONTRACTOR RESPONSIBILITIES**

- 1.11.1. Submit proposed items for testing as required herein and/or as further required in the Contract Documents to Architect for review in accordance with applicable specifications.
- 1.11.2. Cooperate with Laboratory personnel, and provide access to the Work and to manufacturer's facilities.
- 1.11.3. Notify Architect, SCCOE, and Testing Laboratory 48 hours prior to expected time for operations requiring inspection and testing services.
- 1.11.4. When tests or inspections cannot be performed after such notice, reimburse SCCOE for Laboratory personnel and travel expenses incurred due to the Contractor's negligence.

1.11.5. Contractor shall notify SCCOE a sufficient time in advance of the manufacture of material to be supplied by Contractor pursuant to the Contract Documents, which must by terms of the Contract be tested, in order that the SCCOE may arrange for the testing of same at the source of supply.

1.11.5.1. Any material shipped by the Contractor from the source of supply prior to having satisfactorily passed such testing and inspection or prior to the receipt of notice that such testing and inspection will not be required shall not be incorporated in the Work.

1.11.6. Contractor shall contract and pay for services of SCCOE's Testing Laboratory to perform additional inspections, sampling and testing required when initial tests indicate Contractor's work and/or materials does not comply with Contract Documents.

## **1.12. SCHEDULE OF INSPECTIONS AND TESTS**

The Testing Laboratory shall perform tests and inspections for the following in conformance with the (CBC) California Building Code (International Building Code with State of California Amendments), California Code of Regulations, Title 24, Part 2:

- Structural Tests and Special Inspections (Chapter 17A)
  - Special Inspections (§ 1704A)
- Soils and Foundations (Chapter 18A)
  - Geotechnical Investigations (§ 1803A)
- Concrete (Chapter 19A)
  - Specifications for Tests and Materials
  - Concrete Quality, Mixing and Placing
  - Concrete Reinforcement and Anchor Testing Inspection (§ 1916A)
- Masonry (Chapter 21A)
  - Masonry Construction Materials (§ 2103A)
  - Masonry Quality (§ 2103A)
  - Quality Assurance (§ 2105A)
- Structural Steel (Chapter 22A)
  - Structural Steel (§ 2205A)
  - Identification & Protection of Steel for Structural Purposes (§ 2203A)
  - Inspection and Tests of Structural Steel (§ 2212A)
- Wood (Chapter 23)
  - Minimum Standards and Quality (§ 2303)
  - Wood Construction (§ 1704A.6)
- Exterior Walls (Chapter 14)
  - Masonry Units (§ 1404.4)
  - Masonry Construction Materials (§ 2103A)
  - Exterior Insulation and Finish Systems (§ 1408)
- Roof Assemblies and Roofing Structures (Chapter 15)
  - Materials (§ 1506)
- Aluminum (Chapter 20)
  - Materials (§ 2002.1)
  - Inspection (§ 2003.1)

### **1.12.1. Plumbing**

Testing as specified in Division 15 including, but not limited to: Sterilization, soil waste and vent, water piping, source of water, gas piping, downspouts and storm drains.

**1.12.2. Automatic Fire Sprinklers (where applicable)**

Testing as specified in Division 15 shall include, but not be limited to: hydrostatic pressure.

**1.12.3. Heating, Ventilating and Air Conditioning**

Testing as specified in Division 15 shall include, but not be limited to: Ductwork tests, cooling tower tests, boiler tests, controls testing, piping tests, water and air systems, and test and balance of heating and air conditioning systems.

**1.12.4. Electrical**

Testing as specified in Division 16, including, but not limited to: Equipment testing, all electrical system operations, grounding system and checking insulation after cable is pulled.

**1.13. PROJECT INSPECTOR'S ACCESS TO SITE**

1.13.1. A Project Inspector employed by the SCCOE in accordance with the requirement of State of California Code of Regulations, Title 24, Part 1 will be assigned to the Work. Project Inspector's duties are specifically defined in 24. C.C.R. §4-342, and as indicated in the General Conditions.

1.13.2. SCCOE and Construction Manager shall at all times have access for the purpose of inspection to all parts of the Work and to the shops wherein the Work is in preparation, and Contractor shall at all times maintain proper facilities and provide safe access for such inspection.

1.13.3. The Work in all stages of progress shall be subject to the personal continuous observation of the Inspector. Inspector shall have free access to any or all parts of the Work at any time. Contractor shall furnish the Inspector reasonable facilities for obtaining such information as may be necessary to keep Inspector fully informed respecting the progress and manner of the Work and the character of the materials. Inspection of the Work shall not relieve the Contractor from any obligation set forth in the Contract Documents.

1.13.4. The Inspector is not authorized to change, revoke, alter, enlarge or decrease in any way any requirement of the Contract Documents, drawings, specifications or subsequent change orders.

1.13.5. Whenever there is insufficient evidence of compliance with any of the provisions of Title 24 or evidence that any material or construction does not conform to the requirements of Title 24, the Division of the State Architect may require tests as proof of compliance. Test methods shall be as specified herein or by other recognized and accepted test methods determined by the Division of the State Architect. All tests shall be performed by a testing laboratory accepted by the Division of the State Architect.

**END OF DOCUMENT**

**DOCUMENT 01 50 00**  
**TEMPORARY FACILITIES AND CONTROLS**

**1. GENERAL**

**1.1. RELATED DOCUMENTS AND PROVISIONS**

Contractor shall review all Contract Documents for applicable provisions related to the provisions in this document, including without limitation:

- 1.1.1. General Conditions;
- 1.1.2. Special Conditions (if any);
- 1.1.3. Supplemental Conditions (if any);
- 1.1.4. Site Standards; and
- 1.1.5. Temporary Tree and Plant Protection.

**1.2. TEMPORARY UTILITIES**

**1.2.1. Electric Power and Lighting:**

- 1.2.1.1. Contractor will furnish and pay for power during the course of the work to the extent power is not in the building(s) or on the Site. Contractor shall be responsible for providing temporary facilities required on the Site to point of intended use.
- 1.2.1.2. Contractor shall furnish, wire for, install, and maintain temporary electrical lights wherever it is necessary to provide illumination for the proper performance and/or observation of the Work: a minimum of 20 foot-candles for rough work and 50 foot-candles for finish work.
- 1.2.1.3. Contractor shall be responsible for maintaining existing lighting levels in the Project vicinity should temporary outages or service interruptions occur.

**1.2.2. Heat and Ventilation:**

- 1.2.2.1. Contractor shall provide temporary heat to maintain environmental conditions to facilitate progress of the Work, to meet specified minimum conditions for the installation and curing of materials, and to protect materials and finishes from damage due to improper temperature and humidity conditions. Portable heaters shall be standard units complete with controls.
- 1.2.2.2. Contractor shall provide forced ventilation and dehumidification, as required, of enclosed areas for proper installation and curing of materials, to disperse humidity, and to prevent hazardous accumulations of dust, fumes, vapors, and gases.
- 1.2.2.3. Contractor shall pay the costs of installation, maintenance, operation, and removal of temporary heat and ventilation, including costs for fuel consumed, required for the performance of the Work.

1.2.3. **Water:**

1.2.3.1. Contractor will furnish and pay for water during the course of the work. Contractor shall be responsible for providing temporary facilities required.

1.2.3.2. Contractor shall make potable water available for human consumption.

1.2.4. **Sanitary Facilities:**

1.2.4.1. Contractor shall provide sanitary temporary facilities in no fewer numbers than required by law and such additional facilities as may be directed by the Inspector for the use of all workers. The facilities shall be maintained in a sanitary condition at all times and shall be left at the Site until removal is directed by the SCCOE or Contractor completes all Work.

1.2.4.2. Use of toilet facilities in the Site shall not be permitted except by consent of the Project Inspector and SCCOE.

1.2.5. **Telephone Service:**

1.2.5.1. Contractor shall arrange with local telephone service company for telephone service for the performance of the Work. Contractor shall, at a minimum, provide in its field office one line for telephone and one line for fax machine.

1.2.5.2. Contractor shall pay the costs for telephone and fax lines installation, maintenance, service, and removal; for Construction Site Office, Construction Manager's Office and Inspector's Office.

1.2.6. **Fire Protection:**

1.2.6.1. Contractor shall provide and maintain fire extinguishers and other equipment for fire protection. Such equipment shall be designated for use for fire protection only and shall comply with all requirements of the California Fire, State Fire Marshall and/or its designee.

1.2.6.2. Where on-site welding and burning of steel is unavoidable, Contractor shall provide protection for adjacent surfaces.

1.2.7. **Trash Removal:**

1.2.7.1. Contractor shall provide trash removal on a timely basis from all Site Offices and throughout the Site.

~~1.2.8. **Temporary Facilities:**~~

~~1.2.8.1. Contractor shall provide sufficient space and facilities for its own force's needs.~~

~~1.2.8.2. In addition, unless otherwise indicated in the Contract Documents, Contractor shall provide the following facilities, trailers, offices, furniture and:~~

~~1.2.8.2.1. One (1) office trailer that will accommodate a meeting space  
for 10-12 people.~~

~~1.2.8.2.2. One (1) 150 s.f. minimum lockable office space, for Project  
Inspector, including desk and high-speed internet service.~~

- ~~1.2.8.2.3. Basic furniture: chair, desks, plan table, conference room table, and chairs.~~
- ~~1.2.8.2.4. Basic services: fixed line for phone, fax, and high speed internet service.~~

### **1.3. CONSTRUCTION AIDS**

#### **1.3.1. Plant and Equipment:**

1.3.1.1. Contractor shall furnish, operate, and maintain a complete plant for fabricating, handling, conveying, installing, and erecting materials and equipment; and for conveyances for transporting workmen. Include elevators, hoists, debris chutes, and other equipment, tools, and appliances necessary for performance of the Work.

1.3.1.2. Contractor shall maintain plant and equipment in safe and efficient operating condition. Damages due to defective plant and equipment, and uses made thereof, shall be repaired by Contractor at no expense to the SCCOE.

1.3.2. No SCCOE tools or equipment shall be used by Contractor or its subcontractors for the performance of the Work.

### **1.4. BARRIERS AND ENCLOSURES**

1.4.1. Contractor shall obtain SCCOE's written permission for locations and types of temporary barriers and enclosures, including fire-rated materials proposed for use, prior to their installation.

1.4.2. Contractor shall provide a six (6) foot high, chain link perimeter fence with posts driven into the ground and fabric screen as a temporary barrier around construction area. Contractor shall provide and maintain temporary enclosures to prevent public entry and to protect persons using other buildings and portions of the Site and/or Premises. Contractor shall remove temporary fence, barriers and enclosure upon Completion of the Work.

1.4.3. Contractor shall provide site access to existing facilities for persons using other buildings and portions of the Site, for the public, and for deliveries and other services and activities.

### **1.5. SECURITY**

Contractor shall secure all construction equipment, machinery and vehicles, park and store only within fenced area, and render inoperable during non-work hours. Contractor is responsible for ensuring that no construction materials, tools, equipment, machinery or vehicles can be used for unauthorized entry or other damage or interference to activities and security of existing facilities adjacent to and in the vicinity of the Project Site.

### **1.6. TEMPORARY CONTROLS**

#### **1.6.1. Noise Control:**

1.6.1.1. Contractor acknowledges that adjacent facilities may remain in operation during all or a portion of the Work, and Contractor shall take all reasonable precautions to minimize noise as required by applicable laws and the Contract



Documents.

- 1.6.1.2. Notice of proposed noisy operations, including without limitation, operation of pneumatic demolition tools, concrete saws, and other equipment, shall be submitted to SCCOE a minimum of forty-eight (48) hours in advance of their performance.

**1.6.2. Noise and Vibration:**

- 1.6.2.1. Equipment and impact tools shall have intake and exhaust mufflers.
- 1.6.2.2. Contractor shall cooperate with SCCOE to minimize and/or cease the use of noisy and vibratory equipment if that equipment becomes objectionable by its longevity.

**1.6.3. Dust and Dirt:**

- 1.6.3.1. Contractor shall conduct demolition and construction operations to minimize the generation of dust and dirt, and prevent dust and dirt from interfering with the progress of the Work and from accumulating in the Work and adjacent areas including, without limitation, occupied facilities.
- 1.6.3.2. Contractor shall periodically water exterior demolition and construction areas to minimize the generation of dust and dirt.
- 1.6.3.3. Contractor shall ensure that all hauling equipment and trucks carrying loads of soil and debris shall have their loads sprayed with water or covered with tarpaulins, and as otherwise required by local and state ordinance.
- 1.6.3.4. Contractor shall prevent dust and dirt from accumulating on walks, roadways, parking areas, and planting, and from washing into sewer and storm drain lines.

**1.6.4. Surface and Subsurface Water:**

Contractor shall not permit surface and subsurface water, and other liquids, to accumulate in or about the vicinity of the Premises. Should accumulation develop, Contractor shall control the water or other liquid, and suitably dispose of it by means of temporary pumps, piping, drainage lines, troughs, ditches, dams, or other methods.

**1.6.5. Pollution:**

- 1.6.5.1. No burning of refuse, debris, or other materials shall be permitted on or in the vicinity of the Premises.
- 1.6.5.2. Contractor shall comply with applicable regulatory requirements and anti-pollution ordinances during the conduct of the Work including, without limitation, demolition, construction, and disposal operations.

**1.6.6. Lighting**

If portable lights are used after dark, all light must be located so as not to direct light into neighboring property.

**1.7. JOB SIGN(S)**

**1.7.1. General:**

- 1.7.1.1. Contractor shall provide and maintain and locate a Project identification sign with the design, text, and colors designated by SCCOE and/or the Architect.
- 1.7.1.2. Signs other than the specified Project sign and or signs required by law, for safety, or for egress, shall not be permitted, unless otherwise approved in advance by the SCCOE.

**1.7.2. Materials:**

- 1.7.2.1. Structure and Framing: Structurally sound, new or used wood or metal; wood shall be nominal 3/4-inch exterior grade plywood.
- 1.7.2.2. Sign Surface: Minimum 3/4-inch exterior grade plywood.
- 1.7.2.3. Rough Hardware: Galvanized.
- 1.7.2.4. Paint: Exterior quality, of type and colors selected by the SCCOE and/or the Architect.

**1.7.3. Fabrication:**

- 1.7.3.1. Contractor shall fabricate to provide smooth, even surface for painting.
- 1.7.3.2. Size: 4'-0" x 8'-0", unless otherwise indicated.
- 1.7.3.3. Contractor shall paint exposed surfaces of supports, framing, and surface material with exterior grade paint: one coat of primer and one coat of finish paint.
- 1.7.3.4. Text and Graphics: As indicated.

**1.8. PUBLICITY RELEASES**

Contractor shall not release any information, story, photograph, plan, or drawing relating to information about the Project to anyone, including press and other public communications medium, including, without limitation, on website(s).

**END OF DOCUMENT**

**SITE STANDARDS**

**1. GENERAL**

**1.1. RELATED DOCUMENTS AND PROVISIONS:**

Contractor shall review all Contract Documents for applicable provisions related to the provisions in this document, including without limitation:

- 1.1.1. General Conditions, including without limitation, Site Access, Conditions, and Regulations;
- 1.1.2. Special Conditions (if any);
- 1.1.3. Supplemental Conditions (if any);
- 1.1.4. Drug-Free Workplace Certification;
- 1.1.5. Tobacco-Free Environment Certification;
- 1.1.6. Criminal Background Investigation/Fingerprinting Certification; and
- 1.1.7. Temporary Facilities and Controls.

**1.2. REQUIREMENTS OF THE SCCOE**

**1.2.1. Drug-Free Schools and Safety Requirements:**

- 1.2.1.1. All school sites and other SCCOE Facilities have been declared "Drug-Free Zones." No drugs, alcohol, smoking or the use of tobacco products are allowed at any time in any buildings, Contractor-owned vehicles or vehicles owned by others while on SCCOE property. No students, staff, visitors, or contractors are to use drugs on these sites.
- 1.2.1.2. Contractor shall post: "Non-Smoking Area" in a highly visible location on Site. Contractor may designate a smoking area outside of SCCOE property within the public right-of-way, provided that this area remains quiet and unobtrusive to adjacent neighbors. This smoking area must be kept clean at all times.
- 1.2.1.3. Contractor shall ensure that no alcohol, firearms, weapons, or controlled substances enter or are used at the Site. Contractor shall immediately remove from the Site and terminate the employment of any employee(s) found in violation of this provision.

- 1.2.2. **Language:** Unacceptable and/or loud language will not be tolerated, "Cat calls" or other derogatory language toward students or public will not be allowed.

**1.2.3. Disturbing the Peace (Noise and Lighting):**

- 1.2.3.1. Contractor shall observe the noise ordinance of the Site at all times including, without limitation, all applicable local, city, and/or state laws, ordinances, and/or regulations regarding noise and allowable noise levels.

1.2.3.2. The use of radios, etc., shall be controlled to keep all sound at a level that cannot be heard beyond the immediate area of use. SCCOE reserves the right to prohibit the use of radios at the Site, except for handheld communication radios.

1.2.3.3. If portable lights are used after dark, the lights must be located so as not to direct light into neighboring properties.

1.2.4. **Traffic:**

1.2.4.1. Driving on the Premises shall be limited to periods when students and public are not present. If driving or deliveries must be made during the school hours, two (2) or more ground guides shall lead the vehicle across the area of travel. In no case shall driving take place across playgrounds or other pedestrian paths during recess, lunch, and/or class period changes. The speed limit on-the Premises shall be five (5) miles per hour (maximum) or less if conditions require.

1.2.4.2. All paths of travel for deliveries, including without limitation, material, equipment, and supply deliveries, shall be reviewed and approved by SCCOE in advance. Any damage will be repaired to the pre-damaged condition by the Contractor.

1.2.4.3. SCCOE shall designate a construction entry to the Site. If Contractor requests, SCCOE determines it is required, and to the extent possible, SCCOE shall designate a staging area so as not to interfere with the normal functioning of school facilities. Location of gates and fencing shall be approved in advance with SCCOE and at Contractor's expense.

1.2.4.4. Parking areas shall be reviewed and approved by SCCOE in advance. No parking is to occur under the drip line of trees or in areas that could otherwise be damaged.

1.2.4.5. All of the above shall be observed and complied with by the Contractor and all workers on the Site. Failure to follow these directives could result in individual(s) being suspended or removed from the work force at the discretion of the SCCOE. The same rules and regulations shall apply equally to delivery personnel, inspectors, consultants, and other visitors to the Site.

**END OF DOCUMENT**

**TEMPORARY TREE AND PLANT PROTECTION**

**WHERE SUBSTANTIAL TREE PROTECTION WILL BE REQUIRED ON THE SITE, OBTAIN AN ARBORIST TO REVIEW THIS DOCUMENT PRIOR TO BIDDING.**

**1. GENERAL**

**1.1. RELATED DOCUMENTS**

Contractor shall review all Contract Documents for applicable provisions related to the provisions in this document, including without limitation:

- 1.1.1. General Conditions;
- 1.1.2. Special Conditions (if any);
- 1.1.3. Supplemental Conditions (if any); and
- 1.1.4. Temporary Facilities and Controls.

**1.2. SUMMARY**

This Document includes the protection and trimming of existing trees that interfere with, or are affected by, execution of the Work, whether temporary or permanent construction.

**1.3. DEFINITIONS**

Tree Protection Zone: Area surrounding individual trees or groups of trees to remain during construction, and defined by the drip line of individual trees or the perimeter drip line of groups of trees, unless otherwise indicated.

**1.4. SUBMITTALS**

- 1.4.1. Product Data: For each type of product indicated.
- 1.4.2. Tree Pruning Schedule: Written schedule from arborist detailing scope and extent of pruning of trees to remain that interfere with or are affected by construction.
- 1.4.3. Qualification Data: For tree service firm and arborist.
- 1.4.4. Certification: From arborist, certifying that trees indicated to remain have been protected during construction according to recognized standards and that trees were promptly and properly treated and repaired when damaged.
- 1.4.5. Maintenance Recommendations: From arborist, for care and protection of trees affected by construction during and after completing the Work.

**1.5. QUALITY ASSURANCE**

- 1.5.1. Tree Service Firm Qualifications: An experienced tree service firm that has successfully completed tree protection and trimming work similar to that required for this Project and that will assign an experienced, qualified arborist to Project site during execution of tree protection and trimming.

- 1.5.2. Arborist Qualifications: An arborist certified by ISA (International Society of Arboriculture) or licensed in the jurisdiction where Project is located.
- 1.5.3. Tree Pruning Standard: Comply with ANSI A300 (Part 1), "Tree, Shrub, and Other Woody Plant Maintenance--Standard Practices (Pruning)."
  - 1.5.3.1. Before tree protection and trimming operations begin, meet with SCCOE to review tree protection and trimming procedures and responsibilities.

## **2. PRODUCTS**

### **2.1. MATERIALS**

- 2.1.1. Unless otherwise specified, Contractor shall select materials as recommended by arborist or landscape architect.
- 2.1.2. Drainage Fill: Selected crushed stone, or crushed or uncrushed gravel, washed, ASTM D 448, Size 24, with 90 to 100 percent passing a 2-1/2-inch (63-mm) sieve and not more than 10 percent passing a 3/4-inch (19-mm) sieve.
- 2.1.3. Topsoil: Natural or cultivated surface-soil layer containing organic matter and sand, silt, and clay particles; friable, pervious, and black or a darker shade of brown, gray, or red than underlying subsoil; reasonably free of subsoil, clay lumps, gravel, and other objects more than 1 inch (25 mm) in diameter; and free of weeds, roots, and toxic and other nonsoil materials.
  - 2.1.3.1. Obtain topsoil only from well-drained sites where topsoil is 4 inches (100 mm) deep or more; do not obtain from bogs or marshes.
- 2.1.4. Filter Fabric: Manufacturer's standard, nonwoven, pervious, geotextile fabric of polypropylene, nylon, or polyester fibers.
- 2.1.5. Chain-Link Fence: Metallic-coated steel chain-link fence fabric of 0.120-inch- (3-mm-) diameter wire; a minimum of 48 inches (1200 mm) high; with 1.9-inch- (48-mm-) diameter line posts; 2-3/8-inch- (60-mm-) diameter terminal and corner posts; 1-5/8-inch- (41-mm-) diameter top rail; and 0.177-inch- (4.5-mm-) diameter bottom tension wire; with tie wires, hog ring ties, and other accessories for a complete fence system.
- 2.1.6. Select mulch as recommended by arborist or landscape architect.
- 2.1.7. Organic Mulch: Use shredded hardwood, ground or shredded bark, or wood and bark chips, all free of deleterious materials.

## **3. EXECUTION**

### **3.1. PREPARATION**

- 3.1.1. Temporary Fencing: Install temporary fencing around tree protection zones to protect remaining trees and vegetation from construction damage. Maintain temporary fence and remove when construction is complete.
- 3.1.2. Install chain-link fence according to ASTM F 567 and manufacturer's written instructions.

- 3.1.3. Protect tree root systems from damage caused by runoff or spillage of noxious materials while mixing, placing, or storing construction materials. Protect root systems from ponding, eroding, or excessive wetting caused by dewatering operations.
- 3.1.4. Mulch areas inside tree protection zones and other areas indicated.
  - 3.1.4.1. Select mulch as recommended by arborist or landscape architect.
  - 3.1.4.2. Apply 2-inch (50-mm) to 3-inch (75-mm) average thickness of organic mulch. Do not place mulch within 6 inches (150 mm)] of tree trunks.
- 3.1.5. Do not store construction materials, debris, or excavated material inside tree protection zones. Do not permit vehicles or foot traffic within tree protection zones; prevent soil compaction over root systems.
- 3.1.6. Maintain tree protection zones free of weeds and trash.
- 3.1.7. Do not allow fires within tree protection zones.

### **3.2. EXCAVATION**

- 3.2.1. Install shoring or other protective support systems to minimize sloping or benching of excavations where construction or utility excavation is near trees to be protected.
- 3.2.2. Do not excavate within tree protection zones, unless otherwise indicated.
- 3.2.3. Where excavation for new construction is required within tree protection zones, hand clear and excavate to minimize damage to root systems. Use narrow-tine spading forks and comb soil to expose roots.
  - 3.2.3.1. Do not allow exposed roots to dry out before placing permanent backfill. Provide temporary earth cover or pack with peat moss and wrap with burlap. Water and maintain in a moist condition. Temporarily support and protect roots from damage until they are permanently relocated and covered with soil.
- 3.2.4. Where utility trenches are required within tree protection zones, tunnel under or around roots by drilling, auger boring, pipe jacking, or digging by hand.
  - 3.2.4.1. Root Pruning: Do not cut main lateral roots or taproots; cut only smaller roots that interfere with installation of utilities. Cut roots with sharp pruning instruments; do not break or chop.

### **3.3. REGRADING**

- 3.3.1. Grade Lowering: Where new finish grade is indicated below existing grade around trees, slope grade beyond tree protection zones. Maintain existing grades within tree protection zones.
- 3.3.2. Grade Lowering: Where new finish grade is indicated below existing grade around trees, slope grade away from trees as recommended by arborist, unless otherwise indicated.
  - 3.3.2.1. Root Pruning: Prune tree roots exposed during grade lowering. Do not cut main lateral roots or taproots; cut only smaller roots. Cut roots with sharp pruning instruments; do not break or chop.

- 3.3.3. Minor Fill: Where existing grade is 6 inches (150 mm) or less below elevation of finish grade, fill with topsoil. Place topsoil in a single uncompacted layer and hand grade to required finish elevations.
- 3.3.4. Moderate Fill: Where existing grade is more than 6 inches (150 mm) but less than 12 inches (300 mm) below elevation of finish grade, place drainage fill, filter fabric, and topsoil on existing grade as follows:
  - 3.3.4.1. Carefully place drainage fill against tree trunk approximately 2 inches (50 mm) above elevation of finish grade and extend not less than 18 inches (450 mm) from tree trunk on all sides. For balance of area within drip-line perimeter, place drainage fill up to 6 inches (150 mm) below elevation of grade.
  - 3.3.4.2. Place filter fabric with edges overlapping 6 inches (150 mm) minimum.
  - 3.3.4.3. Place fill layer of topsoil to finish grade. Do not compact drainage fill or topsoil. Hand grade to required finish elevations.

#### **3.4. TREE PRUNING**

- 3.4.1. Prune trees to remain that are affected by temporary and permanent construction.
- 3.4.2. Prune trees to remain to compensate for root loss caused by damaging or cutting root system. Provide subsequent maintenance during Contract period as recommended by arborist.
- 3.4.3. Pruning Standards: Prune trees according to ANSI A300 (Part 1), as recommended by arborist report.
- 3.4.4. Adjust pruning requirements per arborist's recommendations.
- 3.4.5. Cut branches with sharp pruning instruments; do not break or chop.
- 3.4.6. Modify below to specific project requirements.
- 3.4.7. Chip removed tree branches and dispose of or spread over areas identified by SCCOE.

#### **3.5. TREE REPAIR AND REPLACEMENT**

- 3.5.1. Promptly repair trees damaged by construction operations within 24 hours. Treat damaged trunks, limbs, and roots according to arborist's written instructions.
- 3.5.2. Remove and replace trees indicated to remain that die or are damaged during construction operations or that are incapable of restoring to normal growth pattern.
  - 3.5.2.1. Provide new trees of 6-inch (150-mm) caliper size and of a when damaged trees more than 6 inches (150 mm) in caliper size, measured 12 inches (300 mm) above grade, are required to be replaced. Plant and maintain new trees as specified in Contract Documents.
- 3.5.3. Where recommended by arborist report, aerate surface soil, compacted during construction, 10 feet (3 m) beyond drip line and no closer than 36 inches (900 mm) to tree trunk. Drill 2-inch (50-mm) diameter holes a minimum of 12 inches (300 mm) deep at 24 inches (600 mm) o.c. Backfill holes with an equal mix of augered soil and sand.



**3.6. DISPOSAL OF WASTE MATERIALS**

3.6.1. Burning is not permitted.

3.6.2. Disposal: Remove excess excavated material and displaced trees from Site.

**END OF DOCUMENT**

DOCUMENT 01 57 10 - [N/A]

STORM WATER POLLUTION PREVENTION PLAN – CONSTRUCTION

END OF DOCUMENT

**DOCUMENT 01 60 00**

**MATERIALS AND EQUIPMENT**

**1. GENERAL**

**1.1. RELATED DOCUMENTS AND PROVISIONS**

Contractor shall review all Contract Documents for applicable provisions related to the provisions in this document, including without limitation:

- 1.1.1. General Conditions.
- 1.1.2. Special Conditions (if any);
- 1.1.3. Supplemental Conditions (if any); and
- 1.1.4. Imported Materials Certification.

**1.2. MATERIALS AND EQUIPMENT**

- 1.2.1. Only items approved by the SCCOE and/or Architect shall be used.
- 1.2.2. Contractor shall submit lists of Products and other Product information in accordance with the Contract Documents, including, without limitation, the provisions regarding the submittals.

**1.3. MATERIALS AND EQUIPMENT COLORS**

- 1.3.1. The Contractor shall comply with all schedule(s) of colors provided by the SCCOE and/or Architect.
- 1.3.2. No individual color selections will be made until after approval of all pertinent materials and equipment and after receipt of appropriate samples in accordance with the Contract Documents, including, without limitation, the provisions regarding the submittals.
- 1.3.3. Contractor shall request priority in writing for any item requiring advance ordering to maintain the approved Construction Schedule.

**1.4. DELIVERY, STORAGE, AND HANDLING**

- 1.4.1. Contractor shall deliver manufactured materials in original packages, containers, or bundles (with seals unbroken), bearing name or identification mark of manufacturer. SCCOE may inspect materials prior to Contractor unloading the delivered materials. SCCOE may reject any materials that do not conform to the Contract Documents.
- 1.4.2. Contractor shall deliver fabrications in as large assemblies as practicable; where specified as shop-primed or shop-finished, package or crate as required to preserve such priming or finish intact and free from abrasion.

- 1.4.3. Contractor shall store materials in such a manner as necessary to properly protect them from damage. Materials or equipment damaged by handling, weather, dirt, or from any other cause will not be accepted.
- 1.4.4. Materials that have been warehoused for long periods of time, stored or transported in improper environment, improperly packaged, inadequately labeled, poorly protected, excessively shipped, deviated from normal distribution pattern, or reassembled are not acceptable.
- 1.4.5. Contractor shall store materials so as to cause no obstructions of sidewalks, roadways, or underground services. Contractor shall protect materials and equipment furnished pursuant to the Contract Documents.
- 1.4.6. Contractor may store materials on Site with prior written approval by SCCOE; all materials shall remain under Contractor's control and Contractor shall remain liable for any damage to the materials. Should the Project Site not have storage area available, the Contractor shall provide for off-site storage at no cost to SCCOE.
- 1.4.7. When any room in Project is used as a shop or storeroom, Contractor shall be responsible for any repairs, patching, or cleaning necessary due to that use. Location of storage space shall be subject to prior written approval by SCCOE.

## **2. PRODUCTS**

### **2.1. MANUFACTURERS**

- 2.1.1. Manufacturers listed in various sections of the Contract Documents are names of those manufacturers that are believed to be capable of supplying one or more of the items specified therein.
- 2.1.2. The listing of a manufacturer does not imply that every product of that manufacturer is acceptable or as meeting the requirements of the Contract Documents.

### **2.2. FACILITIES AND EQUIPMENT**

Contractor shall provide, install, maintain, and operate a complete and adequate facility for handling, execution, disposal, and distribution of materials and equipment as required for proper and timely performance of Work.

### **2.3. MATERIALS REFERENCE STANDARDS**

Where materials are specified solely by reference to "standard specifications" or other general reference, and if requested by SCCOE, Contractor shall submit for review data on actual materials proposed to be incorporated into Work, listing name and address of vendor, manufacturer, or producer, and trade or brand names of those materials, and data substantiating compliance with standard specifications.

## **3. EXECUTION**

### **3.1. WORKMANSHIP**

- 3.1.1. Where not more specifically described in any other Contract Documents, workmanship shall conform to methods and operations of best standards and accepted practices of trade or trades involved and shall include items of fabrication, construction, or installation regularly furnished or required for completion (including finish and for successful operation, as intended).
- 3.1.2. Work shall be executed by tradespersons skilled in their respective field of work. When completed, parts shall have been durably and substantially built and present a neat appearance.

### **3.2. COORDINATION**

- 3.2.1. Contractor shall coordinate installation of materials and equipment so as to not interfere with installation of other Work. Adjustment or rework because of Contractor's failure to coordinate will be at no additional cost to SCCOE.
- 3.2.2. Contractor shall examine in-place materials and equipment for readiness, completeness, fitness to be concealed or to receive Work, and compliance with Contract Documents. Concealing or covering work constitutes acceptance of additional cost which will result should in-place materials and equipment be found unsuitable for receiving other work or otherwise deviating from the requirements of the Contract Documents.

### **3.3. COMPLETENESS**

Contractor shall provide all portions of the Work, unless clearly stated otherwise, installed complete and operational with all elements, accessories, anchorages, utility connections, etc., in a manner to ensure well-balanced performance, in accordance with manufacturer's recommendations and in accordance with Contract Documents. For example, electric water coolers require water, electricity, and drain services; roof drains require drain systems; sinks fit within countertop, etc. Terms such as "installed complete," "operable condition," "for use intended," "connected to all utilities," "terminate with proper cap," "adequately anchored," "patch and refinish," and "to match similar" should be assumed to apply in all cases, except where completeness of functional or operable condition is specifically stated as not required.

### **3.4. APPROVED INSTALLER OR APPLICATOR**

Contractor shall ensure that all installations are only performed by a manufacturer's approved installer or applicator.

### **3.5. MANUFACTURER'S RECOMMENDATIONS**

All installations shall be in accordance with manufacturer's published recommendations and specific written directions of manufacturer's representative. Should the Contract Documents differ from recommendations of manufacturer or directions of manufacturer's representative, Contractor shall analyze differences, make recommendations to the SCCOE and the Architect in writing, and shall not proceed until interpretation or clarification has been issued by the SCCOE and/or the Architect.

**END OF DOCUMENT**

**DOCUMENT 01 66 10**

**DELIVERY, STORAGE AND HANDLING**

**1. GENERAL**

**1.1. RELATED DOCUMENTS AND PROVISIONS**

Contractor shall review all Contract Documents for applicable provisions related to the provisions in this document, including without limitation:

- 1.1.1. General Conditions, including, without limitation, Site Access, Conditions and Requirements; and
- 1.1.2. Special Conditions.

**1.2. PRODUCTS**

- 1.2.1. Products are as defined in the General Conditions.
- 1.2.2. Contractor shall not use and/or reuse materials and/or equipment removed from existing Premises, except as specifically permitted by the Contract Documents.
- 1.2.3. Contractor shall provide interchangeable components of the same manufacturer, for similar components.

**1.3. TRANSPORTATION AND HANDLING**

- 1.3.1. Contractor shall transport and handle Products in accordance with manufacturer's instructions.
- 1.3.2. Contractor shall promptly inspect shipments to confirm that Products comply with Contract requirements, are of correct quantity, and are undamaged.
- 1.3.3. Contractor shall provide equipment and personnel to properly handle Products to prevent soiling, disfigurement, or damage.

**1.4. STORAGE AND PROTECTION**

- 1.4.1. Contractor shall store and protect Products in accordance with manufacturer's instructions, with seals and labels intact and legible. Contractor shall store sensitive Products in weather-tight, climate controlled enclosures.
- 1.4.2. Contractor shall place fabricated Products that are stored outside, on above-ground sloped supports.
- 1.4.3. Contractor shall provide off-site storage and protection for Products when Site does not permit on-site storage or protection.

- 1.4.4. Contractor shall cover Products subject to deterioration with impervious sheet covering and provide ventilation to avoid condensation.
- 1.4.5. Contractor shall store loose granular materials on solid flat surfaces in a well-drained area and prevent mixing with foreign matter.
- 1.4.6. Contractor shall provide equipment and personnel to store Products by methods to prevent soiling, disfigurement, or damage.
- 1.4.7. Contractor shall arrange storage of Products to permit access for inspection and periodically inspect to assure Products are undamaged and are maintained under specified conditions.

**END OF DOCUMENT**

**DOCUMENT 01 73 00**

**EXECUTION**

**1. GENERAL**

**1.1. RELATED DOCUMENTS AND PROVISIONS**

Contractor shall review all Contract Documents for applicable provisions related to the provisions in this document, including without limitation:

- 1.1.1. General Conditions;
- 1.1.2. Special Conditions (if any);
- 1.1.3. Supplemental Conditions (if any);
- 1.1.4. Coordination and Project Meetings;
- 1.1.5. Submittals;
- 1.1.6. Materials and Equipment;
- 1.1.7. Cutting and Patching;
- 1.1.8. Contract Closeout and Final Cleaning; and
- 1.1.9. General Commissioning Requirements.

**1.2. SUMMARY**

- 1.2.1. This Document includes general procedural requirements governing execution of the Work including, but not limited to, the following:
  - 1.2.1.1. Construction layout;
  - 1.2.1.2. Field engineering and surveying;
  - 1.2.1.3. General installation of products;
  - 1.2.1.4. Owner furnished, Contractor installed items;
  - 1.2.1.5. Coordination of SCCOE-installed products;
  - 1.2.1.6. Progress cleaning;
  - 1.2.1.7. Staring and adjusting;
  - 1.2.1.8. Protection of installed construction; and
  - 1.2.1.9. Correction of the Work.



### **1.3. SUBMITTALS**

- 1.3.1. Qualification Data: For land surveyor or professional engineer.
- 1.3.2. Certificates: Submit certificate signed by land surveyor or professional engineer certifying that location and elevation of improvements comply with requirements.
- 1.3.3. Landfill Receipts: Submit copy of receipts issued by a landfill facility, licensed to accept the materials as classified, for hazardous waste disposal.
- 1.3.4. Certified Surveys: Submit electronic files and three (3) paper copies signed by land surveyor or professional engineer.
- 1.3.5. Final Property Survey: Submit electronic files and three (3) paper copies showing the Work performed and record survey data.

## **2. EXECUTION**

### **2.1. EXAMINATION**

- 2.1.1. Existing Utilities: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning Site Work, investigate and verify the existence and location of underground utilities and other construction affecting the Work.
  - 2.1.1.1. Before construction, verify the location and invert elevation at points of connection of sanitary sewer, storm sewer, and water-service piping; and underground electrical services.
  - 2.1.1.2. Furnish location data for Work related to Project that must be performed by public utilities serving the Project Site.

### **2.2. PREPARATION**

- 2.2.1. Existing Utility Information: Furnish information to local utility 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.
- 2.2.2. 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.
- 2.2.3. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.
- 2.2.4. 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

SCCOE per requirements of Document "Requests for Information." Include a detailed description of problem encountered, together with recommendations for any necessary changes to the Contract Documents.

## **2.3. CONSTRUCTION LAYOUT**

- 2.3.1. Verification: Before proceeding to lay out the Work, verify layout information shown on Drawings, in relation to the property survey and existing benchmarks. If discrepancies are discovered, notify SCCOE and its consultant promptly.
- 2.3.2. General: Engage a land surveyor or professional engineer to lay out the Work using accepted surveying practices.
  - 2.3.2.1. Establish benchmarks and control points to set lines and levels at each story of construction and elsewhere as needed to locate each element of Project.
  - 2.3.2.2. Establish dimensions within tolerances indicated. Do not scale Drawings to obtain required dimensions.
  - 2.3.2.3. Inform installers of lines and levels to which they must comply.
  - 2.3.2.4. Check the location, level and plumb, of every major element as the Work progresses.
  - 2.3.2.5. Notify SCCOE and its consultant when deviations from required lines and levels exceed allowable tolerances.
  - 2.3.2.6. Close site surveys with an error of closure equal to or less than the standard established by authorities having jurisdiction.
- 2.3.3. Site Improvements: Locate and lay out site improvements, including pavements, grading, fill and topsoil placement, utility slopes, and invert elevations.
- 2.3.4. Building Lines and Levels: Locate and lay out control lines and levels for structures, building foundations, column grids, and floor levels, including those required for mechanical and electrical work. Transfer survey markings and elevations for use with control lines and levels. Level foundations and piers from two or more locations.
- 2.3.5. Record Log: Maintain a log of layout control Work. Record deviations from required lines and levels. Include beginning and ending dates and times of surveys, weather conditions, name and duty of each survey party member, and types of instruments and tapes used. Make the log available for reference by SCCOE and its consultant.

## **2.4. FIELD ENGINEERING**

- 2.4.1. Reference Points: Locate existing permanent benchmarks, control points, and similar reference points before beginning the Work. Preserve and protect permanent benchmarks and control points during construction operations.
  - 2.4.1.1. Do not change or relocate existing benchmarks or control points without prior written approval of SCCOE and its consultant. Report lost or destroyed

permanent benchmarks or control points promptly. Report the need to relocate permanent benchmarks or control points to SCCOE and its consultant before proceeding.

2.4.1.2. Require surveyor to replace lost or destroyed permanent benchmarks and control points promptly. Base replacements on the original survey control points.

2.4.2. Benchmarks: Establish and maintain a minimum of two (2) permanent benchmarks on Project Site, referenced to data established by survey control points. Comply with authorities having jurisdiction for type and size of benchmark.

2.4.2.1. Record benchmark locations, with horizontal and vertical data, on Project Record Documents.

2.4.2.2. Where the actual location or elevation of layout points cannot be marked, provide temporary reference points sufficient to locate the Work.

2.4.2.3. Remove temporary reference points when no longer needed. Restore marked construction to its original condition.

2.4.3. Records: Contractor shall maintain a complete, accurate log of all control and survey Work as it progresses. On request of SCCOE or Architect, Contractor shall submit documentation to verify accuracy of field engineering Work at no additional cost to the SCCOE.

2.4.4. Certified Survey: On completion of foundation walls, major site improvements, and other Work requiring field-engineering services, prepare a certified survey showing dimensions, locations, angles, and elevations of construction and sitework.

2.4.5. Final Property Survey: Prepare and submit a final property survey showing significant features (real property) for Project. Include on the survey a certification, signed by land surveyor or professional engineer, that principal metes, bounds, lines, and levels of Project are accurately positioned as shown on the survey and are in conformance with Contract Documents.

2.4.5.1. Show boundary lines, monuments, streets, site improvements and utilities, existing improvements and significant vegetation, adjoining properties, acreage, grade contours, and the distance and bearing from a Site corner to a legal point.

2.4.6. Compliance with Laws: Contractor is responsible for meeting all applicable codes, OSHA, safety, and shoring requirements.

2.4.7. Nonconforming Work: Contractor is responsible for any re-surveying required by correction of nonconforming Work.

## **2.5. INSTALLATION**

2.5.1. General: Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.

- 2.5.1.1. Make vertical Work plumb and make horizontal Work level.
- 2.5.1.2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.
- 2.5.1.3. Conceal pipes, ducts, and wiring in finished areas, unless otherwise indicated.
- 2.5.1.4. Maintain minimum headroom clearance of 7 feet in spaces without a suspended ceiling.
- 2.5.2. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.
- 2.5.3. Install products at the time and under conditions that will ensure the best possible results. Maintain conditions required for product performance until Completion.
- 2.5.4. 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.
- 2.5.5. Tools and Equipment: Do not use tools or equipment that produce harmful noise levels where possible.
- 2.5.6. 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.
- 2.5.7. 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.
  - 2.5.7.1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by SCCOE.
  - 2.5.7.2. Allow for building movement, including thermal expansion and contraction.
  - 2.5.7.3. 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.
- 2.5.8. 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.
- 2.5.9. Hazardous Materials: Use products, cleaners, and installation materials that are not classed as hazardous per the MSDS sheets for the products where possible. If hazardous materials are necessary, inform SCCOE where and when they will be used no less than 48 hours before use. Take all recommended precautions of the materials' manufacturers to ensure safe use and clean-up.

## **2.6. SCCOE-INSTALLED PRODUCTS**

- 2.6.1. Site Access: Provide access to Project Site for SCCOE's construction forces.
- 2.6.2. Coordination: Coordinate construction and operations of the Work with work performed by SCCOE's construction forces.
  - 2.6.2.1. Construction Schedule: Inform SCCOE of Contractor's preferred schedule for SCCOE's portion of the Work. Adjust Construction Schedule based on a mutually agreeable timetable. Notify SCCOE if changes to schedule are required due to differences in actual construction progress.
  - 2.6.2.2. Preinstallation Conferences: Include SCCOE's construction forces at preinstallation conferences covering portions of the Work that are to receive SCCOE's work. Attend preinstallation conferences conducted by SCCOE's construction forces if portions of the Work depend on SCCOE's construction.

## **2.7. PROGRESS CLEANING**

- 2.7.1. General: Clean Project Site and work areas daily, including common areas. Coordinate progress cleaning for joint-use areas where more than one installer has worked. Enforce requirements strictly. Dispose of materials lawfully.
  - 2.7.1.1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
  - 2.7.1.2. Do not hold materials more than seven (7) days during normal weather or three (3) days if the temperature is expected to rise above 80 degrees F.
  - 2.7.1.3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations. Remove hazardous and unsanitary waste materials daily.
- 2.7.2. Site: Maintain Project Site free of waste materials and debris.
- 2.7.3. Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the Work.
  - 2.7.3.1. Remove liquid spills promptly.
  - 2.7.3.2. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.
- 2.7.4. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.
- 2.7.5. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.

- 2.7.6. Exposed Surfaces in Finished Areas: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Completion.
- 2.7.7. Waste Disposal: Burying or burning waste materials on-site will not be permitted. Washing waste materials down sewers or into waterways will not be permitted.
- 2.7.8. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Completion.
- 2.7.9. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
- 2.7.10. Limiting Exposures: Supervise construction operations to assure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

## **2.8. STARTING AND ADJUSTING**

- 2.8.1. Start equipment and operating components to confirm proper operation. Replace or repair malfunctioning units and retest.
- 2.8.2. Adjust operating components for proper operation without binding. Adjust equipment for proper operation.
- 2.8.3. Test each piece of equipment to verify proper operation. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.
- 2.8.4. 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 Document "Quality Requirements."

## **2.9. PROTECTION OF INSTALLED CONSTRUCTION**

- 2.9.1. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Completion.
- 2.9.2. Comply with manufacturer's written instruction for temperature and relative humidity unless otherwise addressed in the construction planning, sequences, and instructions. See Section 06 40 00 "Architectural Woodwork" for additional condition requirements of woodwork.

## **2.10. CORRECTION OF THE WORK**

- 2.10.1. Repair or remove and replace defective construction. Restore damaged substrates and finishes. Comply with requirements in Document "Cutting and Patching."

2.10.1.1. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment.

2.10.2. Restore permanent facilities used during construction to their specified condition.

2.10.3. Remove and replace damaged surfaces that are exposed to view if surfaces cannot be repaired without visible evidence of repair.

2.10.4. Repair components that do not operate properly. Remove and replace operating components that cannot be repaired.

2.10.5. Remove and replace chipped, scratched, and broken glass or reflective surfaces.

**END OF DOCUMENT**

**DOCUMENT 01 73 10**

**CUTTING AND PATCHING**

**1. GENERAL**

**1.1. RELATED DOCUMENTS AND PROVISIONS**

Contractor shall review all Contract Documents for applicable provisions related to the provisions in this document, including without limitation:

- 1.1.1. General Conditions, including, without limitation, Inspector, Inspections, and Tests, Integration of Work, Nonconforming Work, and Correction of Work, and Uncovering Work;
- 1.1.2. Special Conditions (if any);
- 1.1.3. Supplemental Conditions (if any);
- 1.1.4. Hazardous Materials Procedures and Requirements;
- 1.1.5. Hazardous Materials Certification;
- 1.1.6. Lead-Based Materials Certification; and
- 1.1.7. Imported Materials Certification.

**1.2. CUTTING AND PATCHING**

- 1.2.1. Contractor shall be responsible for all cutting, fitting, and patching, including associated excavation and backfill, required to complete the Work or to:
  - 1.2.1.1. Make several parts fit together properly.
  - 1.2.1.2. Uncover portions of Work to provide for installation of ill-timed Work.
  - 1.2.1.3. Remove and replace defective Work.
  - 1.2.1.4. Remove and replace Work not conforming to requirements of Contract Documents.
  - 1.2.1.5. Remove Samples of installed Work as specified for testing.
  - 1.2.1.6. Provide routine penetrations of non-structural surfaces for installation of piping and electrical conduit.
  - 1.2.1.7. Attaching new materials to existing remodeling areas – including painting (or other finishes) to match existing conditions.
- 1.2.2. In addition to Contract requirements, upon written instructions from SCCOE, Contractor shall uncover Work to provide for observations of covered Work in accordance with the



Contract Documents, remove samples of installed materials for testing as directed by SCCOE, and remove Work to provide for alteration of existing Work.

- 1.2.3. Contractor shall not cut or alter Work, or any part of it, in such a way that endangers or compromises the integrity of the Work, the Project, or Work of others.
- 1.2.4. Contractor shall not cut and patch operating elements or safety 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. Operating elements include the following:
  - 1.2.4.1. Primary operational systems and equipment.
  - 1.2.4.2. Air or smoke barriers.
  - 1.2.4.3. Fire-suppression systems.
  - 1.2.4.4. Mechanical systems piping and ducts.
  - 1.2.4.5. Control systems.
  - 1.2.4.6. Communication systems.
  - 1.2.4.7. Conveying systems.
  - 1.2.4.8. Electrical wiring systems.
- 1.2.5. Contractor shall not cut and patch miscellaneous elements or related components in a manner that could change their load-carrying capacity, that results in reducing capacity to perform as intended, or that results in increased maintenance or decreased operational life of safety. Miscellaneous elements include the following:
  - 1.2.5.1. Water, moisture or vapor barriers.
  - 1.2.5.2. Membranes and flashings.
  - 1.2.5.3. Exterior curtain-wall construction.
  - 1.2.5.4. Equipment supports.
  - 1.2.5.5. Piping, ductwork, vessels and equipment.
  - 1.2.5.6. Noise and vibration control elements and systems.
  - 1.2.5.7. Shoring, bracing and sheeting.

### **1.3. REQUEST TO CUT, ALTER, PATCH OR EXCAVATE**

- 1.3.1. Contractor shall submit written notice to SCCOE pursuant to the applicable notice provisions of the Contract Documents, requesting consent to proceed with the cutting or alteration ("Request") at least ten (10) days prior to any cutting or alterations that

may affect the structural safety of the Project, or Work of others, including the following:

1.3.1.1. The Work of the SCCOE or other trades.

1.3.1.2. Structural value or integrity of any element of the Project.

1.3.1.3. Integrity or effectiveness of weather-exposed or weather-resistant elements or systems.

1.3.1.4. Efficiency, operational life, maintenance or safety of operational elements.

1.3.1.5. Visual qualities of sight-exposed elements.

1.3.2. Contractor's Request shall also include:

1.3.2.1. Identification of the Project.

1.3.2.2. Description of affected Work.

1.3.2.3. Necessity for cutting, alterations, or excavations.

1.3.2.4. Impacts of that Work on the SCCOE, other trades, or structural or weatherproof integrity of the Project.

1.3.2.5. Description of proposed Work:

1.3.2.5.1. Scope of cutting, patching, alterations, or excavations.

1.3.2.5.2. Trades that will execute Work.

1.3.2.5.3. Products proposed to be used.

1.3.2.5.4. Extent of refinishing to be done.

1.3.2.6. Alternates to cutting and patching.

1.3.2.7. Cost proposal, when applicable.

1.3.2.8. The scheduled date the Work is to be performed and the duration of time to complete the Work.

1.3.2.9. Written permission of other trades whose Work will be affected.

#### **1.4. QUALITY ASSURANCE**

1.4.1. Contractor shall ensure that cutting, fitting, and patching shall achieve security, strength, weather protection, appearance for aesthetic match, efficiency, operational life, maintenance, safety of operational elements, and the continuity of existing fire ratings.

- 1.4.2. Contractor shall ensure that cutting, fitting, and patching shall successfully duplicate undisturbed adjacent profiles, materials, textures, finishes, and colors, and that materials shall match existing construction. Where there is dispute as to whether duplication is successful or has been achieved to a reasonable degree, the SCCOE's decision shall be final.

## **1.5. PAYMENT FOR COSTS**

- 1.5.1. Costs caused by ill-timed or defective Work or Work not conforming to Contract Documents, including costs for additional services of the SCCOE or its consultants including but not limited to the Architect, inspector(s), engineers, and agents, will be paid by Contractor and/or deducted from the Contract Price by the SCCOE.
- 1.5.2. Contractor shall provide written cost proposals prior to proceeding with cutting and patching. SCCOE shall only pay for cost of Work if it is part of the Contract Price or if a change has been made to the Contract in compliance with the provisions of the General Conditions. Cost of Work performed upon instructions from the SCCOE, other than defective or nonconforming Work, will be paid by SCCOE on approval of written Change Order in accordance with the Contract Documents.

## **2. PRODUCTS**

### **2.1. MATERIALS**

- 2.1.1. Contractor shall provide for replacement and restoration of Work removed. Contractor shall comply with the Contract Documents and with the industry standard(s), for the type of Work, and the Specification requirements for each specific product involved. If not specified, Contractor shall recommend a product of a manufacturer or appropriate trade association for approval by the SCCOE.
- 2.1.2. Materials to be cut and patched include those damaged by the performance of the Work.

## **3. EXECUTION**

### **3.1. INSPECTION**

- 3.1.1. Contractor shall inspect existing conditions of the Site and the Work, including elements subject to movement or damage during cutting and patching, excavating and backfilling. After uncovering Work, Contractor shall inspect conditions affecting installation of new products.
- 3.1.2. Contractor shall report unsatisfactory or questionable conditions in writing to SCCOE as indicated in the General Conditions and shall proceed with Work as indicated in the General Conditions by SCCOE.

### **3.2. PREPARATION**

- 3.2.1. Contractor shall provide shoring, bracing and supports as required to maintain structural integrity for all portions of the Project, including all requirements of the Project.

- 3.2.2. Contractor shall provide devices and methods to protect other portions of Project from damage.
- 3.2.3. Contractor shall, provide all necessary protection from weather and extremes of temperature and humidity for the Project, including without limitation any work that may be exposed by cutting and patching Work. Contractor shall keep excavations free from water.

### **3.3. ERECTION, INSTALLATION AND APPLICATION**

- 3.3.1. With respect to performance, Contractor shall ensure its Subcontractors:
  - 3.3.1.1. Execute fitting and adjustment of products to provide finished installation to comply with and match specified tolerances and finishes.
  - 3.3.1.2. Execute cutting and demolition by methods that will prevent damage to other Work, and provide proper surfaces to receive installation of repairs and new Work.
  - 3.3.1.3. Execute cutting, demolition excavating, and backfilling by methods that will prevent damage to other Work and damage from settlement.
  - 3.3.1.4. Contractor shall use original installer or fabricator to perform cutting and patching for:
    - 3.3.1.5. Weather-exposed surfaces and moisture-resistant elements such as roofing, sheet metal, sealants, waterproofing, and other trades.
    - 3.3.1.6. Sight-exposed finished surfaces.
- 3.3.2. Contractor shall ensure its Subcontractors execute fitting and adjustment of products to provide a finished installation to comply with specified products, functions, tolerances, and finishes as shown or specified in the Contract Documents including, without limitation, the Drawings and Specifications.
- 3.3.3. Subcontractors shall fit Work airtight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces. Contractor shall conform to all Code requirements for penetrations or the Drawings and Specifications, whichever calls for a higher quality or more thorough requirement. Contractor shall maintain integrity of both rated and non-rated fire walls, ceilings, floors, etc.
- 3.3.4. Contractor's Subcontractors shall restore Work which has been cut or removed and install new products to provide completed Work in accordance with requirements of the Contract Documents and as required to match surrounding areas and surfaces.
- 3.3.5. Contractor's Subcontractors shall refinish all continuous surfaces to nearest intersection as necessary to match the existing finish to any new finish.

**END OF DOCUMENT**

DOCUMENT 01 74 19

CONSTRUCTION WASTE MANAGEMENT AND DISPOSALS:

1. PART        GENERAL

1.        RELATED DOCUMENTS

- a        Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

2.        SUMMARY

- a        Section includes administrative and procedural requirements for the following:
  - 1        Salvaging nonhazardous construction waste.
  - 2        Recycling nonhazardous construction waste.
  - 3        Disposing of nonhazardous construction waste.
- b        Related Requirements:
  - 1        Section 311000 "Site Clearing" for disposition of waste resulting from site clearing and removal of above- and below-grade improvements.

3.        DEFINITIONS

- a        Construction Waste: Building, structure, and site improvement materials and other solid waste resulting from construction, remodeling, renovation, or repair operations. Construction waste includes packaging.
- b        Demolition Waste: Building, structure, and site improvement materials resulting from demolition operations.
- c        Disposal: Removal of demolition or construction waste and subsequent salvage, sale, recycling, or deposit in landfill, incinerator acceptable to authorities having jurisdiction, or designated spoil areas on Owner's property.
- d        Recycle: Recovery of demolition or construction waste for subsequent processing in preparation for reuse.
- e        Salvage: Recovery of demolition or construction waste and subsequent sale or reuse in another facility.
- f        Salvage and Reuse: Recovery of demolition or construction waste and subsequent incorporation into the Work.

4. MATERIALS OWNERSHIP

- a Unless otherwise indicated, demolition and construction waste becomes property of Contractor.
- b Historic items, relics, antiques, and similar objects including, but not limited to, cornerstones and their contents, commemorative plaques and tablets, and other items of interest or value to Owner that may be uncovered during demolition remain the property of Owner.
  - 1 Carefully salvage in a manner to prevent damage and promptly return to Owner.

5. ACTION SUBMITTALS

- a Waste Management Plan: Submit plan within 30 days of date established for commencement of the Work.

6. INFORMATIONAL SUBMITTALS

- a Waste Reduction Progress Reports: Concurrent with each Application for Payment, submit report. Include the following information:
  - 1 Material category.
  - 2 Generation point of waste.
  - 3 Total quantity of waste in **cubic yards**.
  - 4 Quantity of waste salvaged, both estimated and actual in **tons or cubic yards**.
  - 5 Quantity of waste recycled, both estimated and actual in **tons or cubic yards**.
  - 6 Total quantity of waste recovered (salvaged plus recycled) in **tons or cubic yards**.
  - 7 Total quantity of waste recovered (salvaged plus recycled) as a percentage of total waste.
- b Waste Reduction Calculations: Before request for Substantial Completion, submit calculated end-of-Project rates for salvage, recycling, and disposal as a percentage of total waste generated by the Work.
- c Records of Donations: Indicate receipt and acceptance of salvageable waste donated to individuals and organizations. Indicate whether organization is tax exempt.
- d Records of Sales: Indicate receipt and acceptance of salvageable waste sold to individuals and organizations. Indicate whether organization is tax exempt.
- e 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.
- f 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.

- g Qualification Data: For Waste Management Coordinator.
- h Statement of Refrigerant Recovery: Signed by refrigerant recovery technician responsible for recovering refrigerant, stating that all refrigerant that was present was recovered and that recovery was performed according to EPA regulations. Include name and address of technician and date refrigerant was recovered.
- i Submittal procedures and quantities are specified in Document 01 30 00

## 7. QUALITY ASSURANCE

- a Waste Management Coordinator Qualifications: Experienced firm, or individual employed and assigned by General Contractor, with a record of successful waste management coordination of projects with similar requirements. Superintendent may serve as Waste Management Coordinator.
- b Waste Management Conference(s): Conduct conference(s) at Project site to comply with requirements in Section 013100 "Project Management and Coordination." Review methods and procedures related to waste management including, but not limited to, the following:
  - 1 Review and discuss waste management plan including responsibilities of each contractor and waste management coordinator.
  - 2 Review requirements for documenting quantities of each type of waste and its disposition.
  - 3 Review and finalize procedures for materials separation and verify availability of containers and bins needed to avoid delays.
  - 4 Review procedures for periodic waste collection and transportation to recycling and disposal facilities.
  - 5 Review waste management requirements for each trade.

## 8. WASTE MANAGEMENT PLAN

- a General: Develop a waste management plan according to requirements in this Section. Plan shall consist of waste identification, waste reduction work plan, and cost/revenue analysis. Indicate quantities by weight or volume, but use same units of measure throughout waste management plan.
- b Waste Identification: Indicate anticipated types and quantities of site-clearing and construction waste generated by the Work. Include estimated quantities and assumptions for estimates.
- c Waste Reduction Work Plan: List each type of waste and whether it will be salvaged, recycled, or disposed of in landfill or incinerator. Include points of waste generation, total quantity of each type of waste, quantity for each means of recovery, and handling and transportation procedures.

- 1 Salvaged Materials for Reuse: For materials that will be salvaged and reused in this Project, describe methods for preparing salvaged materials before incorporation into the Work.
  - 2 Salvaged Materials for Sale: For materials that will be sold to individuals and organizations, include list of their names, addresses, and telephone numbers.
  - 3 Salvaged Materials for Donation: For materials that will be donated to individuals and organizations, include list of their names, addresses, and telephone numbers.
  - 4 Recycled Materials: Include list of local receivers and processors and type of recycled materials each will accept. Include names, addresses, and telephone numbers.
  - 5 Disposed Materials: Indicate how and where materials will be disposed of. Include name, address, and telephone number of each landfill and incinerator facility.
  - 6 Handling and Transportation Procedures: Include method that will be used for separating recyclable waste including sizes of containers, container labeling, and designated location where materials separation will be performed.
- d Cost/Revenue Analysis: Indicate total cost of waste disposal as if there were no waste management plan and net additional cost or net savings resulting from implementing waste management plan. Include the following:
- 1 Total quantity of waste.
  - 2 Estimated cost of disposal (cost per unit). Include transportation and tipping fees and cost of collection containers and handling for each type of waste.
  - 3 Total cost of disposal (with no waste management).
  - 4 Revenue from salvaged materials.
  - 5 Revenue from recycled materials.
  - 6 Savings in transportation and tipping fees by donating materials.
  - 7 Savings in transportation and tipping fees that are avoided.
  - 8 Handling and transportation costs. Include cost of collection containers for each type of waste.
  - 9 Net additional cost or net savings from waste management plan.

2. PART            PRODUCTS – Not Used.

3. PART            EXECUTION

1.            PLAN IMPLEMENTATION

- a General: Implement approved waste management plan. 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 operation, termination, and removal requirements in Section 015000 "Temporary Facilities and Controls."



- b Waste Management Coordinator: Engage a waste management coordinator to be responsible for implementing, monitoring, and reporting status of waste management work plan. Coordinator shall be present at Project site full time for duration of Project.
- c Training: Train workers, subcontractors, and suppliers on proper waste management procedures, as appropriate for the Work.
  - 1 Distribute waste management plan to everyone concerned within three (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.
- d 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 and recycled.
  - 2 Comply with Section 015000 "Temporary Facilities and Controls" for controlling dust and dirt, environmental protection, and noise control.

## 2. RECYCLING CONSTRUCTION WASTE, GENERAL

- a General: Recycle paper and beverage containers used by on-site workers.
- b Recycling Incentives: Revenues, savings, rebates, tax credits, and other incentives received for recycling waste materials shall accrue to Contractor.
- c Preparation of Waste: Prepare and maintain recyclable waste materials according to recycling or reuse facility requirements. Maintain materials free of dirt, adhesives, solvents, petroleum contamination, and other substances deleterious to the recycling process.
- d Procedures: Separate recyclable waste from other waste materials, trash, and debris. Separate recyclable waste by type at Project site to the maximum extent practical according to approved construction waste management plan.
  - 1 Provide appropriately marked containers or bins for controlling recyclable waste until 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 from Owner's property and transport to recycling receiver or processor as often as required to prevent overfilling bins.

### 3. RECYCLING CONSTRUCTION WASTE

#### a Packaging:

- 1 Cardboard and Boxes: Break down packaging into flat sheets. Bundle and store in a dry location.
- 2 Polystyrene Packaging: Separate and bag materials.
- 3 Pallets: As much as possible, require deliveries using pallets to remove pallets from Project site. For pallets that remain on-site, break down pallets into component wood pieces and comply with requirements for recycling wood.
- 4 Crates: Break down crates into component wood pieces and comply with requirements for recycling wood.

#### b Wood Materials:

- 1 Clean Cut-Offs of Lumber: Grind or chip into small pieces.
- 2 Clean Sawdust: Bag sawdust that does not contain painted or treated wood.
  - a Comply with requirements in Section 329000 "Planting" for use of clean sawdust as organic mulch.

#### c Gypsum Board: Stack large clean pieces on wood pallets or in container and store in a dry location.

- 1 Clean Gypsum Board: Grind scraps of clean gypsum board using small mobile chipper or hammer mill. Screen out paper after grinding.
  - a Comply with requirements in Section 329000 "Planting" for use of clean ground gypsum board as inorganic soil amendment.

#### d Paint: Seal containers and store by type.

### 4. DISPOSAL OF WASTE

#### a General: Except for items or materials to be salvaged or recycled, remove waste materials from Project site and legally dispose of them in a landfill or incinerator acceptable to authorities having jurisdiction.

- 1 Except as otherwise specified, do not allow waste materials that are to be disposed of accumulate on-site.
- 2 Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.

- b General: Except for items or materials to be salvaged or recycled, remove waste materials and legally dispose of at designated spoil areas on Owner's property.
- c Burning: Do not burn waste materials.
- d Burning: Burning of waste materials is permitted only at designated areas on Owner's property, provided required permits are obtained. Provide full-time monitoring for burning materials until fires are extinguished.

END OF SECTION 01 74 19

**DOCUMENT 01 77 00**

**CONTRACT CLOSEOUT AND FINAL CLEANING**

**1. GENERAL**

**1.1. RELATED DOCUMENTS**

Contractor shall review all Contract Documents for applicable provisions related to the provisions in this document, including without limitation:

- 1.1.1. General Conditions including, without limitation, Documents on Work and Completion of Work;
- 1.1.2. Special Conditions (if any);
- 1.1.3. Supplemental Conditions (if any);
- 1.1.4. Submittals;
- 1.1.5. Operation and Maintenance Data;
- 1.1.6. Warranties;
- 1.1.7. Record Documents;
- 1.1.8. Demonstration and Training; and
- 1.1.9. General Commissioning Requirements.

**1.2. PRELIMINARY PROCEDURES**

- 1.2.1. Before requesting inspection for determining date of Completion, complete the following. List items below that are incomplete in request.
  - 1.2.1.1. Prepare a list of items to be completed and corrected ("Punch List"), the value of items on the list, and reasons why the Work is not complete.
  - 1.2.1.2. Advise SCCOE of pending insurance changeover requirements.
  - 1.2.1.3. Submit specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
  - 1.2.1.4. Obtain and submit releases permitting SCCOE unrestricted use of the Work and access to services and utilities. Include certificate of occupancy, operating certificates, and similar releases, if required.
  - 1.2.1.5. Prepare and submit Project Record Documents, operation and maintenance manuals, Completion construction photograph prints and electronic files, damage or settlement surveys, property surveys, and similar final record information.

- 1.2.1.6. Deliver tools, spare parts, extra materials, and similar items to location designated by SCCOE. Label with manufacturer's name and model number where applicable.
- 1.2.1.7. Make final changeover of permanent locks and deliver keys to SCCOE. Advise SCCOE's personnel of changeover in security provisions.
- 1.2.1.8. Complete startup testing of systems.
- 1.2.1.9. Submit test/adjust/balance records.
- 1.2.1.10. Terminate and remove temporary facilities from Project Site, along with mockups, construction tools, and similar elements.
- 1.2.1.11. Advise SCCOE of changeover in heat and other utilities.
- 1.2.1.12. Submit changeover information related to SCCOE's occupancy, use, operation, and maintenance.
- 1.2.1.13. Complete final cleaning requirements, including touch-up painting.
- 1.2.1.14. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.

### **1.3. RECORD DOCUMENTS AND SHOP DRAWINGS**

- 1.3.1. Contractor shall legibly mark each item to record actual construction, including:
  - 1.3.1.1. Measured depths of foundation in relation to finish floor datum.
  - 1.3.1.2. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permit surface improvements.
  - 1.3.1.3. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.
  - 1.3.1.4. Field changes of dimension and detail.
  - 1.3.1.5. Details not on original Contract Drawings
  - 1.3.1.6. Changes made by modification(s).
  - 1.3.1.7. References to related Shop Drawings and modifications.
  - 1.3.1.8. Contractor will provide one set of Record Drawings to SCCOE.
  - 1.3.1.9. Contractor shall submit all required documents to SCCOE and/or Architect prior to or with its final Application for Payment.

### **1.4. COMPLETION**

- 1.4.1. Preliminary Procedures: Before requesting inspection for determining date of Completion, complete the following:

1.4.1.1. Submit a final Application for Payment according to the Contract Documents.

1.4.1.2. Submit evidence of final, continuing insurance coverage complying with insurance requirements.

1.4.1.3. Submit pest-control final inspection report and warranty.

1.4.1.4. Instruction of SCCOE Personnel:

1.4.1.4.1. Before final inspection, at agreed upon times, Contractor shall instruct SCCOE's designated personnel in operation, adjustment, and maintenance of products, equipment, and systems.

1.4.1.4.2. For equipment requiring seasonal operation, Contractor shall perform instructions for other seasons within six (6) months.

1.4.1.4.3. Contractor shall use operation and maintenance manuals as basis for instruction. Contractor shall review contents of manual with personnel in detail to explain all aspects of operation and maintenance.

1.4.1.4.4. Contractor shall prepare and insert additional data in Operation and Maintenance Manual when need for such data becomes apparent during instruction.

1.4.1.4.5. Contractor shall use operation and maintenance manuals as basis for instruction. Contractor shall review contents of manual with personnel in detail to explain all aspects of operation and maintenance.

1.4.2. Inspection: Submit a written request for inspection.

1.4.3. **LIST OF INCOMPLETE ITEMS (PUNCH LIST)** Contractor shall notify SCCOE and Architect when Contractor considers the Work complete. Upon notification, SCCOE and Architect will prepare a list of minor items to be completed or corrected ("Punch List").

1.4.4. Contractor and/or its Subcontractors shall proceed promptly to complete and correct items on the Punch List. Failure to include an item on Punch List does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

1.4.5. Contractor shall comply with Punch List procedures as provided herein and in the Contract Documents, and maintain the presence of a Project Superintendent and Project Manager until the Punch List is complete to ensure proper and timely completion of the Punch List. Under no circumstances shall Contractor demobilize its forces prior to completion of the Punch List. Upon receipt of Contractor's written notice that all of the Punch List items have been fully completed and the Work is ready for final inspection and acceptance, SCCOE and Architect will inspect the Work and shall submit to Contractor a final inspection report noting the Work, if any, required in order to reach Completion in accordance with the Contract Documents. Absent unusual

circumstances, this report shall consist of the Punch List items not yet satisfactorily completed and any additional Punch List items not originally included.

- 1.4.6. Upon Contractor's completion of all items on the Punch List and any other uncompleted portions of the Work, the Contractor shall notify the SCCOE and Architect, who shall again inspect such Work. If the SCCOE and Architect find the Work complete and acceptable under the Contract Documents, the SCCOE will notify Contractor, who shall then jointly submit to the Architect and SCCOE its final Application for Payment.
- 1.4.7. **Costs of Multiple Inspections.** More than two (2) requests of SCCOE to make a final inspection shall be considered an additional service of SCCOE, the Architect and/or the Inspector, and all subsequent costs will be invoiced to Contractor and withheld from remaining payments, if funds are available.
- 1.4.8. Punch List shall be deemed complete only upon the SCCOE's determination that all items on the Punch List, and all updates to the Punch List, are complete.

## **1.5. WARRANTIES**

- 1.5.1. Submittal Time: Submit written warranties on request of SCCOE for designated portions of the Work where commencement of warranties other than date of Completion is indicated.
- 1.5.2. Organize warranty documents into an orderly sequence as required by the Division 01 Document "Warranties."

## **2. PRODUCTS**

### **2.1. MATERIALS**

- 2.1.1. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

## **3. EXECUTION**

### **3.1. FINAL CLEANING**

- 3.1.1. Provide final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations. Contractor shall use cleaning methods and procedures that reduce the overall impact on human health and the natural environment by reducing the amount of disposed waste, pollution and environmental degradation. If Project is subject to LEED certification, Contractor shall ensure compliance with the applicable LEED requirements for final cleaning of the Site.
- 3.1.2. Contractor shall employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program.
  - 3.1.2.1. Complete the following cleaning operations before requesting final inspection:

- 3.1.2.1.1. Clean Project Site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
- 3.1.2.1.2. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
- 3.1.2.1.3. Rake grounds that are neither planted nor paved to a smooth, even-textured surface.
- 3.1.2.1.4. Remove tools, construction equipment, machinery, and surplus material from Project Site.
- 3.1.2.1.5. Remove snow and ice to provide safe access to building.
- 3.1.2.1.6. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
- 3.1.2.1.7. Clean all surfaces and other work in accordance with recommendations of the manufacturer.
- 3.1.2.1.8. Remove spots, mortar, plaster, soil, and paint from ceramic tile, stone, and other finish materials.
- 3.1.2.1.9. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
- 3.1.2.1.10. Sweep concrete floors broom clean in unoccupied spaces.
- 3.1.2.1.11. Vacuum carpet and similar soft surfaces, removing debris and excess nap; shampoo if visible soil or stains remain.
- 3.1.2.1.12. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other noticeable, vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials. Polish mirrors and glass, taking care not to scratch surfaces.
- 3.1.2.1.13. Remove labels that are not permanent.
- 3.1.2.1.14. Touch up and otherwise repair and restore marred, exposed finishes and surfaces. Replace finishes and surfaces that cannot be satisfactorily repaired or restored or that already show evidence of repair or restoration.
  - 3.1.2.1.14.1. Do not paint over "UL" and similar labels, including mechanical and electrical nameplates.



- 3.1.2.1.15. Wipe surfaces of mechanical and electrical equipment and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
  - 3.1.2.1.16. Replace parts subject to unusual operating conditions.
  - 3.1.2.1.17. Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.
  - 3.1.2.1.18. Replace disposable air filters and clean permanent air filters. Clean exposed surfaces of diffusers, registers, and grills.
  - 3.1.2.1.19. Clean ducts, blowers, and coils if units were operated without filters during construction.
  - 3.1.2.1.20. Clean light fixtures, lamps, globes, and reflectors to function with full efficiency. Replace burned-out bulbs, and those noticeably dimmed by hours of use, and defective and noisy starters in fluorescent and mercury vapor fixtures to comply with requirements for new fixtures.
  - 3.1.2.1.21. Leave Project Site clean and ready for occupancy.
- 3.1.3. Pest Control: Engage an experienced, licensed exterminator to make a final inspection and rid Project of rodents, insects, and other pests.
  - 3.1.4. Comply with safety standards for cleaning. Do not burn waste materials. Do not bury debris or excess materials on SCCOE's property. Do not discharge volatile, harmful, or dangerous materials into drainage systems. Remove waste materials from Project Site and dispose of lawfully.

**END OF DOCUMENT**

**DOCUMENT 01 78 23**

**OPERATION AND MAINTENANCE DATA**

**1. GENERAL**

**1.1. RELATED DOCUMENTS AND PROVISIONS**

Contractor shall review all Contract Documents for applicable provisions related to the provisions in this document, including without limitation:

- 1.1.1. General Conditions, including, without limitation, Completion of the Work;
- 1.1.2. Special Conditions (if any);
- 1.1.3. Supplemental Conditions (if any);
- 1.1.4. Submittals;
- 1.1.5. Contract Closeout and Final Cleaning;
- 1.1.6. Warranties;
- 1.1.7. Record Documents;
- 1.1.8. General Commissioning Requirements.

**1.2. QUALITY ASSURANCE**

- 1.2.1. Contractor shall prepare instructions and data by personnel experienced in maintenance and operation of described products.

**1.1. FORMAT (Documents must be submitted electronically unless otherwise specified and/or agreed upon)**

- 1.2.2. Contractor shall prepare data in the form of an instructional manual entitled "OPERATIONS AND MAINTENANCE MANUAL & INSTRUCTIONS" ("Manual").
- 1.2.3. Binders: Contractor shall use commercial quality, 8-1/2 by 11 inch, three-side rings, with durable plastic covers; two inch maximum ring size. When multiple binders are used, Contractor shall correlate data into related consistent groupings.
- 1.2.4. Cover: Contractor shall identify each binder with typed or printed title "OPERATION AND MAINTENANCE MANUAL & INSTRUCTIONS"; and shall list title of Project and identify subject matter of contents.
- 1.2.5. Contractor shall arrange content by systems process flow under section numbers and sequence of the Table of Contents of the Contract Documents.
- 1.2.6. Contractor shall provide tabbed fly leaf for each separate Product and system, with typed description of Product and major component parts of equipment.

- 1.2.7. Text: The content shall include Manufacturer's printed data, or typewritten data on 24 pound paper.
- 1.2.8. Drawings: Contractor shall provide with reinforced punched binder tab and shall bind in with text; folding larger drawings to size of text pages.

### **1.3. CONTENTS, EACH VOLUME**

- 1.3.1. Table of Contents: Contractor shall provide title of Project; names, addresses, and telephone numbers of the Architect, any engineers, subconsultants, Subcontractor(s), and Contractor with name of responsible parties; and schedule of Products and systems, indexed to content of the volume.
- 1.3.2. For Each Product or System: Contractor shall list names, addresses, and telephone numbers of Subcontractor(s) and suppliers, including local source of supplies and replacement parts.
- 1.3.3. Product Data: Contractor shall mark each sheet to clearly identify specific Products and component parts, and data applicable to installation. Delete inapplicable information.
- 1.3.4. Drawings: Contractor shall supplement Product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams. Contractor shall not use Project Record Documents as maintenance drawings.
- 1.3.5. Text: The Contractor shall include any and all information as required to supplement Product data. Contractor shall provide logical sequence of instructions for each procedure, incorporating manufacturer's instructions.

### **1.4. MANUAL FOR MATERIALS AND FINISHES**

- 1.4.1. Building Products, Applied Materials, and Finishes: Contractor shall include Product data, with catalog number, size, composition, and color and texture designations. Contractor shall provide information for re-ordering custom manufactured Products.
- 1.4.2. Instructions for Care and Maintenance: Contractor shall include Manufacturer's recommendations for cleaning agents and methods, precautions against detrimental agents and methods, and recommended schedule for cleaning and maintenance.
- 1.4.3. Moisture Protection and Weather Exposed Products: Contractor shall include Product data listing applicable reference standards, chemical composition, and details of installation. Contractor shall provide recommendations for inspections, maintenance, and repair.
- 1.4.4. Additional Requirements: Contractor shall include all additional requirements as specified in the Specifications.
- 1.4.5. Contractor shall provide a listing in Table of Contents for design data, with tabbed fly sheet and space for insertion of data.

### **1.5. MANUAL FOR EQUIPMENT AND SYSTEMS**

- 1.5.1. Each Item of Equipment and Each System: Contractor shall include description of unit or system, and component parts and identify function, normal operating characteristics, and limiting conditions. Contractor shall include performance curves, with engineering data and tests, and complete nomenclature, and commercial number of replaceable parts.
- 1.5.2. Panelboard Circuit Directories: Contractor shall provide electrical service characteristics, controls, and communications.
- 1.5.3. Contractor shall include color coded wiring diagrams as installed.
- 1.5.4. Operating Procedures: Contractor shall include start-up, break-in, and routine normal operating instructions and sequences. Contractor shall include regulation, control, stopping, shut-down, and emergency instructions. Contractor shall include summer, winter, and any special operating instructions.
- 1.5.5. Maintenance Requirements: Contractor shall include routine procedures and guide for trouble-shooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.
- 1.5.6. Contractor shall provide servicing and lubrication schedule, and list of lubricants required.
- 1.5.7. Contractor shall include manufacturer's printed operation and maintenance instructions.
- 1.5.8. Contractor shall include sequence of operation by controls manufacturer.
- 1.5.9. Contractor shall provide original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.
- 1.5.10. Contractor shall provide control diagrams by controls manufacturer as installed.
- 1.5.11. Contractor shall provide Contractor's coordination drawings, with color coded piping diagrams as installed.
- 1.5.12. Contractor shall provide charts of valve tag numbers, with location and function of each valve, keyed to flow and control diagrams.
- 1.5.13. Contractor shall provide list of original manufacturer's spare parts, current prices, and recommended quantities to be maintained in storage.
- 1.5.14. Additional Requirements: Contractor shall include all additional requirements as specified in Specification(s).
- 1.5.15. Contractor shall provide a listing in Table of Contents for design data, with tabbed fly sheet and space for insertion of data.

**1.6. SUBMITTAL**

- 1.6.1. Concurrent with the Schedule of Submittals as indicated in the General Conditions, Contractor shall submit to the SCCOE for review two (2) copies of a preliminary draft of proposed formats and outlines of the contents of the Manual.
- 1.6.2. For equipment, or component parts of equipment put into service during construction and to be operated by SCCOE, Contractor shall submit draft content for that portion of the Manual within ten (10) days after acceptance of that equipment or component.
- 1.6.3. On or before the Contractor submits its final application for payment, Contractor shall submit two (2) copies of a complete Manual in final form. The SCCOE will provide comments to Contractor and Contractor must revise the content of the Manual as required by SCCOE prior to SCCOE's approval of Contractor's final Application for Payment.
- 1.6.4. Contractor must submit two (2) copies of revised Manual in final form within ten (10) days after receiving SCCOE's comments. Failure to do so will be a basis for the SCCOE withholding funds sufficient to protect itself for Contractor's failure to provide a final Manual to the SCCOE.

**END OF DOCUMENT**

**DOCUMENT 01 78 36**

**WARRANTIES**

**2. GENERAL**

**2.1. RELATED DOCUMENTS AND PROVISIONS**

Contractor shall review all Contract Documents for applicable provisions related to the provisions in this document, including without limitation:

- 2.1.1. General Conditions, including, without limitation, Warranty/Guarantee/Indemnity;
- 2.1.2. Special Conditions (if any);
- 2.1.3. Supplemental Conditions (if any);
- 2.1.4. Submittals;
- 2.1.5. Contract Closeout and Final Cleaning;
- 2.1.6. Operation and Maintenance Data;
- 2.1.7. Record Documents;
- 2.1.8. General Commissioning Requirements.

**2.2. FORMAT (Documents must be submitted electronically unless otherwise specified and/or agreed upon)**

- 2.2.1. Binders: Contractor shall use commercial quality, 8-1/2 by 11 inch, three-side rings, with durable plastic covers; two inch maximum ring size.
- 2.2.2. Cover: Contractor shall identify each binder with typed or printed title "WARRANTIES" and shall list the title of Project.
- 2.2.3. Table of Contents: Contractor shall provide the title of Project; name, address, and telephone number of Contractor and equipment supplier, and name of responsible principal. Contractor shall identify each item with the number and title of the specific Specification, document, provision, or section in which the name of the Product or Work item is specified.
- 2.2.4. Contractor shall separate each Warranty with index tab sheets keyed to the Table of Contents listing, providing full information and using separate typed sheets as necessary. Contractor shall list each applicable and/or responsible Subcontractor(s), supplier(s), and/or manufacturer(s), with name, address, and telephone number of each responsible principal(s).
- 2.2.5. In addition to all Warranty documentation and information required herein, Contractor shall provide its Guarantee as required by the Contract Documents.

**2.3. PREPARATION**

- 2.3.1. Contractor shall obtain Warranties, executed in duplicate by each applicable and/or responsible Subcontractor(s), supplier(s), and manufacturer(s), within ten (10) days after completion of the applicable item or Work. Except for items put into use with SCCOE's permission, Contractor shall leave date of beginning of time of Warranty until the date of Completion is determined.
- 2.3.2. Contractor shall verify that Warranties.
- 2.3.3. are in proper form, contain full information, and are notarized, when required.
- 2.3.4. Contractor shall co-execute submittals when required.
- 2.3.5. Contractor shall retain warranties until time specified for submittal.

#### **2.4. TIME OF SUBMITTALS**

- 2.4.1. Schedule of Warranties. Contractor shall provide SCCOE with a Schedule of Warranties at least fourteen (14) days prior to submitting its other required submittals indicated herein. This will provide SCCOE the opportunity to review the anticipated Warranties and make any comments, suggestions or revisions the SCCOE may require.
- 2.4.2. For equipment or component parts of equipment put into service during construction with SCCOE's permission, Contractor shall submit a draft Warranty for that equipment or component within ten (10) days after acceptance of that equipment or component.
- 2.4.3. On or before the Contractor submits its final application for payment, Contractor shall submit all Warranties and related documents in final form. The SCCOE shall indicate any Warranty-related Work that is being performed and incomplete at the time Contractor submits its final application for payment. SCCOE will provide comments to Contractor and Contractor must revise the content of the Warranties as required by SCCOE prior to SCCOE's approval of Contractor's final Application for Payment.
- 2.4.4. For items of Work that are not completed until after the date of Completion, Contractor shall provide an updated Warranty for those item(s) of Work within ten (10) days after acceptance, listing the date of acceptance as start of the Warranty period.

**END OF DOCUMENT**

**DOCUMENT 01 78 39**

**RECORD DOCUMENTS**

**1. GENERAL**

**1.1. RELATED DOCUMENTS AND PROVISIONS**

Contractor shall review all Contract Documents for applicable provisions related to the provisions in this document, including without limitation:

- 1.1.1. General Conditions, including, without limitation, Documents on Work and Completion of Work;
- 1.1.2. Special Conditions (if any);
- 1.1.3. Supplemental Conditions (if any);
- 1.1.4. Submittals;
- 1.1.5. Contract Closeout and Final Cleaning;
- 1.1.6. Operation and Maintenance Data;
- 1.1.7. Warranties;
- 1.1.8. General Commissioning Requirements.

**2. RECORD DOCUMENTS OR DRAWINGS**

**2.1. GENERAL**

- 2.1.1. "Record Documents" and "Record Drawings" may also be referred to in the Contract Documents as "As-Built Drawings."
- 2.1.2. As indicated in the Contract Documents, SCCOE will provide Contractor with one set of reproducible plans of the original Drawings.
- 2.1.3. Contractor shall maintain at each Project Site one (1) set of marked-up Drawings and shall transfer all changes and information to those marked-up Drawings, as often as required in the Contract Documents, but in no case less than once each month. Contractor shall submit to the Project Inspector one set of reproducible vellums of the Project Record Documents ("As-Built") showing all changes incorporated into the Work since the preceding monthly submittal. The As-Built shall be available at the Project Site. The Contractor shall submit reproducible vellums at the conclusion of the Project following review of the blue-line prints.
- 2.1.4. Label and date each Record Document "RECORD DOCUMENT" in legibly printed letters.
- 2.1.5. All deviations in construction, including but not limited to pipe and conduit locations and deviations caused, without limitation, by Change Orders, Construction Directives, RFI's, and Addenda shall be accurately and legibly recorded by Contractor.



- 2.1.6. Locations and changes shall be done by Contractor in a neat and legible manner and, where applicable, indicated by drawing a "cloud" around the changed or additional information.

## 2.2. **RECORD DOCUMENT INFORMATION**

- 2.2.1. Contractor shall record the following information:
  - 2.2.1.1. Locations of Work buried under or outside each building, including, without limitation, all utilities, plumbing and electrical lines, and conduits.
  - 2.2.1.2. Actual numbering of each electrical circuit.
  - 2.2.1.3. Locations of significant Work concealed inside each building whose general locations are changed from those shown on the Drawings.
  - 2.2.1.4. Locations of all items, not necessarily concealed, which vary from the Contract Documents.
  - 2.2.1.5. Installed location of all cathodic protection anodes.
  - 2.2.1.6. Deviations from the sizes, locations, and other features of installations shown in the Contract Documents.
  - 2.2.1.7. Locations of underground work, points of connection with existing utilities, changes in direction, valves, manholes, catch basins, capped stubouts, invert elevations, etc.
  - 2.2.1.8. Sufficient information to locate Work concealed in each building with reasonable ease and accuracy.
- 2.2.2. In some instances, this information may be recorded by dimension. In other instances, it may be recorded in relation to the spaces in the building near which it was installed.
- 2.2.3. Contractor shall provide additional Drawings as necessary for clarification.
- 2.2.4. Contractor shall provide in an electronic format as indicated in the Contract Documents, a copy of the Drawings, made from final Shop Drawings marked "No Exceptions Taken" or "Approved as Noted."
  - 2.2.4.1. With the SCCOE's prior approval, Contractor may provide these reproducible Drawings in hard copy.

## 3. **RECORD MATERIALS LOG**

- 3.1.1. Materials Log shall be submitted prior to Completion.
- 3.1.2. Preparation: Mark Material Log to indicate the actual product installation where installation varies from that indicated in original Material Log.

- 3.1.3. Give particular attention to information on concealed materials and installations that cannot be readily identified and recorded later.
- 3.1.4. Mark copy with the proprietary name and characteristics of products, materials, and equipment furnished, including substitutions and product options selected.
- 3.1.5. Record the name of the manufacturer, supplier, installer, and other information necessary to provide a record of selections made.
- 3.1.6. The working copy of Materials Log shall be consistently maintained throughout construction, and shall be accessible at Project Site.

#### **4. MAINTENANCE OF RECORD DOCUMENTS**

- 4.1. Contractor shall store Record Documents apart from documents used for construction as follows:
  - 4.1.1. Provide files and racks for storage of Record Documents.
  - 4.1.2. Maintain Record Documents in a clean, dry, legible condition and in good order.
- 4.2. Contractor shall not use Record Documents for construction purposes.

**END OF DOCUMENT**

**DOCUMENT 01 91 00 [N/A]**

**COMMISSIONING**

**1. GENERAL**

**1.1. RELATED DOCUMENTS AND PROVISIONS**

Contractor shall review all Contract Documents for applicable provisions related to the provisions in this document, including without limitation:

- 1.1.1. General Conditions, including, without limitation, Documents on Work and Completion of Work;
- 1.1.2. Special Conditions (if any);
- 1.1.3. Supplemental Conditions (if any);
- 1.1.4. Submittals;
- 1.1.5. Collaborative For High Performance Schools (CHPS) -- Special Environmental Requirements; [N/A]
- 1.1.6. Contract Closeout and Final Cleaning;
- 1.1.7. Operation and Maintenance Data;
- 1.1.8. Warranties;
- 1.1.9. Record Documents; and
- 1.1.10. LEED Certification Sustainable Design Requirements. [N/A]

**1.2. SUMMARY**

- 1.2.1. Commissioning is a process for validating and documenting that the facility and its systems are constructed and perform in conformity with the Contract Documents.
- 1.2.2. The objective of the commissioning process is to verify that the performance of the facility and its systems meet or exceed the design intent.
- 1.2.3. Commissioning includes special facility start-up processes used to bring the facility to a fully operational state, free of deficiencies in an efficient and timely manner.
- 1.2.4. Training on related systems and equipment operation and maintenance shall be scheduled to commence only after start-up is complete and systems are verified to be 100% complete and functional.

**1.3. DESCRIPTION**

The following applies to all Contract Documents:

- 1.3.1. **Contractor Startup:** Sub-phase of Contractor's work ending with Acceptance of Work, during which Contractor performs a pre-planned program of activities including starting, testing, inspecting, adjusting balancing, correcting deficiencies and other similar activities.
  - 1.3.1.1. The SCCOE, Construction Manager and Architect and the Inspector shall be present to observe, inspect and identify deficiencies in building systems operations.
- 1.3.2. The completion of startup means the entire Construction Project including startup and fine tuning has been performed to the requirements of the Contract Documents and is verified in writing by the SCCOE, Construction Manager and Architect.
- 1.3.3. **Fine Tuning:** Fine tuning is the responsibility of Contractors after SCCOE occupancy and ending one (1) year after SCCOE occupancy. During this time the Contractor is responsible for optimizing systems and correcting deficiencies arising under normal operating conditions.
  - 1.3.3.1. Includes a period after occupancy where systems are optimized under "live" operating conditions and any outstanding construction deficiencies are corrected.
  - 1.3.3.2. Fine Tuning shall extend from date of SCCOE occupancy to one year after occupancy.

#### 1.4. DEFINITION OF TERMS

- 1.4.1. **Contractor's Pre-Commissioning Checklists:** Includes installation and start-up items as specified to be completed by the appropriate contractors prior to operational verification through the functional testing process.
- 1.4.2. **Installation Verification Process:** Includes the on-site inspection and review of related system components for conformance to Contract Documents. The Contractor shall verify systems readiness for functional testing procedures prior to the start of functional testing. Deficiencies will be documented by the Inspector for future resolution.
- 1.4.3. **Functional Performance Testing Process:** Includes the documented testing of system parameters, under actual or simulated operating conditions. Final performance commissioning of systems will begin only after the appropriate Contractor certifies that systems are 100% complete and ready for functional testing. The Contractor will be required to schedule, coordinate and perform device tests, calibration and functional performance test procedures.
- 1.4.4. **Deficiencies and Resolutions List:** Includes a list of noted deficiencies discovered as a result of the commissioning process. This list also includes the current disposition of issues, and the date of final resolution as confirmed by the Construction Manager and Inspector. Deficiencies are defined as those issues where products execution or performance does not satisfy the Project Contract Documents and/or the design intent.

#### 1.5. COMMISSIONING SCHEDULE

- 1.5.1. Provide schedules for Contractor Start-Up work.

- 1.5.2. Incorporate in overall construction schedule.
- 1.5.3. Contractor's activities, which will be performed as specified under Fine Tuning, shall be completed within one (1) year from date of occupancy by the SCCOE.

**1.6. CONTRACTOR RESPONSIBILITIES**

- 1.6.1. Provide utility services required for the commissioning process.
- 1.6.2. Contractor is responsible for construction means, methods, job safety, and/or management function related to commissioning on the Project Site.
- 1.6.3. Contractor shall assign representatives with expertise and authority to act on behalf of Contractor and schedule the representatives to participate in and perform commissioning team activities including, but not limited to, the following:
  - 1.6.3.1. Participate in design and construction-phase coordination meetings.
  - 1.6.3.2. Participate in maintenance orientation and inspection.
  - 1.6.3.3. Participate in operation and maintenance training sessions.
  - 1.6.3.4. Participate in final review.
  - 1.6.3.5. Certify that Work is complete and systems are operational according to the Contract Documents, including calibration of instrumentation and controls.
  - 1.6.3.6. Evaluate performance deficiencies identified in test reports and, in collaboration with entity responsible for system and equipment installation, recommend corrective action.
  - 1.6.3.7. Review and comment on final commissioning documentation.
- 1.6.4. Contractor shall integrate all commissioning activities into Contractor's Construction Schedule.
- 1.6.5. Contractor's Subcontractors shall assign representatives with expertise and authority to act on behalf of subcontractors and schedule the representatives to participate in and perform commissioning team activities including, but not limited to, the following:
  - 1.6.5.1. Participate in design and construction-phase coordination meetings.
  - 1.6.5.2. Participate in maintenance orientation and inspection.
  - 1.6.5.3. Participate in procedures meeting for testing.
  - 1.6.5.4. Participate in final review.
  - 1.6.5.5. Provide schedule for operation and maintenance data submittals, equipment startup, and testing to Commissioning Authority for incorporation into the

commissioning plan. Update schedule on a weekly basis throughout the construction period.

- 1.6.5.6. Provide information to the Commissioning Authority for developing construction phase commissioning plan.
- 1.6.5.7. Participate in training sessions for SCCOE's operation and maintenance personnel.
- 1.6.5.8. Provide updated Project Record Documents to Commissioning Authority on a daily basis.
- 1.6.5.9. Gather and submit operation and maintenance data for systems, subsystems, and equipment to the Commissioning Authority, as specified in Division 01 Document "Operation and Maintenance Data."
- 1.6.5.10. Provide technicians who are familiar with the construction and operation of installed systems, who shall execute the test procedures developed by the Commissioning Authority, and who shall participate in testing of installed systems, subsystems, and equipment.

## **1.7. SUBMITTALS**

- 1.7.1. Submit Draft and Final Contractor Start-up Forms as described in this Document. Submit Draft Report for Construction Manager and Architect's review and comment prior to Final Submission. Submit Final Report not later than twenty weeks before scheduled date of Acceptance of Work.
- 1.7.2. Prepare and submit one copy of report form to be used in preparation of system reports for:
  - 1.7.2.1. Food Service Equipment.
  - 1.7.2.2. Gymnasium Equipment and Scoreboards
  - 1.7.2.3. Laboratory Fume Hoods
  - 1.7.2.4. Elevators
  - 1.7.2.5. Each mechanical system specified in Division 15.
  - 1.7.2.6. Each Electrical system specified in Division 16.
- 1.7.3. Each System Report shall be submitted including the following:
  - 1.7.3.1. Project Name
  - 1.7.3.2. Name of System
  - 1.7.3.3. Index of report's content

- 1.7.3.4. Adjacent to list of equipment, columns to indicate status of equipment operation, to date and to sign off equipment start-up.
- 1.7.3.5. Space to record equipment and operational problems which cannot be corrected with scheduled Contractor Start-Up program and which may delay Acceptance of Work.
- 1.7.3.6. Manufacturer's equipment start-up reports.
- 1.7.3.7. Systems' testing, balancing, and adjusting reports.
- 1.7.3.8. Equipment Report Forms shall include the following: Project name, name of equipment, starting and testing procedures to be performed and observations and test results to be recorded.

## 1.8. QUALITY ASSURANCE

- 1.8.1. Training Instructor Qualifications: Contractor shall provide factory-authorized service representatives, experienced in training, operation, and maintenance procedures for installed systems, subsystems, and equipment.
- 1.8.2. Test Equipment Calibration: Comply with test equipment manufacturer's calibration procedures and intervals. Recalibrate test instruments (per NIST requirements if applicable) immediately whenever instruments have been repaired following damage or dropping. Affix calibration tags to test instruments. Instruments shall have been calibrated within six months prior to use.

## 1.9. EQUIPMENT & SYSTEM SCHEDULE

- 1.9.1. The following equipment shall be commissioned in this Project:

System	Equipment	Note	Req'd by LEED
HVAC System	Chillers		X
	Boilers		X
	Pumps		X
	Cooling towers		X
	Variable frequency drives		X
	Air handlers		X
	Packaged AC units		X
	Terminal units for Office areas	2	X
	Unit heaters		X
	Heat exchangers		X
	Exhaust fans		X
	Supply fans		X
	Return fans		X
Building Management System	Sequences of Operation, Monitored Points, and Alarms		X
	Metering/Monitoring Devices and Equipment		X
	Software Commissioning, GUI presentation		

	commissioning, system access performance criteria, software tools/source code commissioning, instrument data sheets, middleware commissioning, Internet Protocol commissioning		
Electrical System	Sweep or scheduled lighting controls	2	X
	Daylight dimming controls		X
	Lighting occupancy sensors		X
	Electrical grounding		
Plumbing System	Domestic water heaters		X
Security Alarm Systems	Security cameras and monitoring system personal duress alarm system; Intercom system; Paging System.		
System	Equipment	Note	Req'd by LEED
Security Electronics	Security plumbing fixture water management system.		
	Door Controls.		
	Fire alarm system.		
	Distributed radio antenna system.		
	Access control system.		
Courtroom Systems	Room acoustics.		
	Sound masking system.		
	Assisted listening.		
	Video projection.		
	Audio system.		
	Lighting and lighting controls.		X
Fire/Life Safety Systems	All devices		
	Alarm drivers		
	HVAC/Fire System Integration		
	Event Notifying and Reporting Systems		
Communication System			

#### 1.10. SYSTEM FAILURES

After a second failure of a system to successfully meet the criteria as set for in the functional performance testing process, the Contractor shall reimburse the SCCOE for cost associated with any additional retesting required due to uncorrected deficiencies. Costs shall include salary, benefits, overhead, travel costs and per diem lodging costs if applicable.

**END OF DOCUMENT**



SECTION 02 41 19  
SELECTIVE DEMOLITION

## PART 1 GENERAL

## 1.1 SECTION INCLUDES

- A. Demolishing designated building equipment and fixtures.
- B. Demolishing designated construction.
- C. Cutting and alterations for completion of the Work.
- D. Removing designated items for reuse and Owner's retention.
- E. Protecting items designated to remain.
- F. Removing demolished materials.

## 1.2 SUBMITTALS

- A. See Section 01 33 00 for submittal requirements
- B. Demolition Schedule: Indicate overall schedule and interruptions required for utility and building services.
- C. Shop Drawings:
  - 1. Indicate demolition and removal sequence.
  - 2. Indicate location of items designated for reuse and Owner's retention.
  - 3. Indicate location and construction of temporary work.

## 1.3 CLOSEOUT SUBMITTALS

- A. Project Record Documents: Record actual locations of capped utilities, concealed utilities discovered during demolition, and subsurface obstructions.

## 1.4 QUALITY ASSURANCE

- A. Conform to applicable code for demolition work, dust control, products requiring electrical disconnection and re-connection.
- B. Conform to applicable code for procedures when hazardous or contaminated materials are discovered.
- C. Obtain required permits from authorities having jurisdiction.

## 1.5 PRE-DEMOLITION MEETING

- A. See Administrative Section regarding pre-installation meetings.
- B. Convene site meeting one week prior to beginning demolition to confirm scope understanding.

## 1.6 SCHEDULING

- A. Schedule Work to coincide with new construction and modernization.
- B. Cooperate with Owner in scheduling noisy operations and waste removal that may impact Owners operation and activities in adjacent buildings on school campus.
- C. Coordinate utility and building service interruptions with Owner.
- D. Do not disable or disrupt building fire or life safety systems without three days prior written notice to Owner.
- E. Schedule tie-ins to existing systems to minimize disruption.
- F. Coordinate Work to ensure fire sprinklers, fire alarms, smoke detectors, emergency lighting, exit signs and other life safety systems remain in full operation in occupied areas of adjacent buildings on school campus.

## PART 2 PRODUCTS – Not Used

## PART 3 EXECUTION

## 3.1 EXAMINATION

- A. Examine conditions of the work in place before beginning work; report existence of hazardous materials or unsafe structural conditions.

## 3.2 PREPARATION

- A. Notify affected utility companies before starting work and comply with their requirements.
- B. Mark location and termination of utilities.
- C. Existing Utilities:
  - 1. General: Coordinate disconnection and capping of existing gas, water, sewer and electrical utilities; verify work is complete before starting demolition work affecting those utilities. Do not interrupt existing utility service to operating facilities, except when authorized in writing by Owner. Provide not less than 72 hours' notice to Owner if shutdown of service is required. Make provision for temporary service during interruption of existing utility service, acceptable to Owner.
  - 2. Mechanical: Refer to Division 22 – PLUMBING; disconnecting, removing and capping existing gas, water and sewer utilities.
  - 3. Electrical: Refer to Division 26 – ELECTRICAL; disconnecting, removing, and capping existing electrical utilities. Owner will make arrangements with telephone company concerning their equipment and lines.
- D. Erect, and maintain temporary barriers and security devices, including warning signs and lights, and similar measures, for protection of the public and Owner, and existing improvements indicated to remain.
- E. Prevent movement of structures; provide temporary bracing and shoring required to ensure safety of existing structures.
- F. Provide appropriate temporary signage including signage for exit or building egress.
- G. Do not close or obstruct building egress path.
- H. Do not disable or disrupt building fire or life safety systems without 3 days prior written notice to Owner.
- I. Hazardous Materials:
  - 1. General: Identify, collect, and legally dispose of chemicals, gases, explosives, acids, flammables, or other dangerous materials before proceeding with demolition operations.
  - 2. Asbestos: If asbestos or materials containing asbestos are encountered, stop work immediately and contact the Owner. Do not proceed with demolition until directed by Owner.
- J. Protection:
  - 1. Site: Protect existing adjacent installations not scheduled for demolition from damage; take measures to prevent damage to existing turf, paving, trees, streets, curbs, walks, sewers, etc., during demolition and construction.
  - 2. Trees:
    - a) General: Protect trees adjacent to and overhanging the Project Site from impact of any kind.
    - b) [Repair and Replacement off site elements: Per the city Municipal Code where this project occurs.](#)
    - c) Tree Preservation:
      - 1. General: Owner's Representative shall designate the following:
      - 2. Tree Enclosure Area: Material, topsoil, vehicle or equipment not permitted within tree enclosure area.

3. Tree Canopy Area: Do not alter ground under and around designated area.
4. Retained Trees: Irrigated, aerated and maintained as required to ensure survival.
- d) Trenching and Excavation: Report the encounter of any tree root system to the Owner. Owner will provide services of an Arborist to repair major damage to root systems.
3. Safety Precautions: Prevent damage to existing elements to remain or to be salvaged, and prevent injury to the public and workmen engaged on site. Demolish roofs, walls and other building elements in such manner that demolished materials fall within foundation lines of building being removed. Do not allow demolition debris to accumulate on site. Pull down hazardous work at end of each day; do not leave standing or hanging overnight, or over weekends.

### 3.3 SALVAGE REQUIREMENTS

- A. Coordinate with Owner to identify building components and equipment required to be removed and delivered to Owner.
- B. Tag components and equipment Owner designates for salvage.
- C. Protect designated salvage items from demolition operations until items can be removed.
- D. Carefully remove building components and equipment indicated to be salvaged.
- E. Disassemble as required to permit removal from building.
- F. Package small and loose parts to avoid loss.
- G. Mark equipment and packaged parts to permit identification and consolidation of components of each salvaged item.
- H. Prepare assembly instructions consistent with disassembled parts. Package assembly instructions in protective envelope and securely attach to each disassembled salvaged item.
- I. Deliver salvaged items to Owner. Obtain signed receipt from Owner.

### 3.4 DEMOLITION

- A. General: Perform demolition as shown and remove from the site. Use methods required to complete Work within limitations of governing regulations. Use means necessary to prevent dust becoming a nuisance to the public, to neighbors, and to other work being performed on or near the site.
  1. Conduct demolition to minimize interference with adjacent and occupied building areas.
  2. Maintain protected egress from and access to adjacent existing buildings at all times.
  3. Do not close or obstruct roadways or sidewalks without permits.
- B. Explosives: Use not permitted.
- C. Cutting and Removal: Remove existing work as shown; cut in neat straight lines, parallel to adjacent elements or plumb to vertical surfaces; grind smooth saw cut edges of concrete slabs or walls. Neatly remove existing finish materials back to clean straight line on nearest support to facilitate installation of new materials, patches or repairs. Use methods that prevent damage to other work, and provide proper surfaces for installation of repairs and new work.
- D. Prepare and follow an organized plan for demolition and removal of items.
  1. Shut off, cap, and otherwise protect existing public utility lines in accordance with the requirements of the public agency or utility having jurisdiction.
  2. Cap and identify abandoned utilities at termination points when utility is not completely removed. Annotate Record Drawings indicating location and type of service for capped utilities remaining after demolition.
  3. Completely remove items scheduled to be so demolished and removed, leaving surfaces clean, solid, and ready to receive new materials specified elsewhere.
  4. In all activities, comply with pertinent regulations of governmental agencies having jurisdiction.
- E. Carefully remove building and site components indicated to be reused.
  1. Disassemble components as required to permit removal.
  2. Package small and loose parts to avoid loss.
  3. Mark components and packaged parts to permit reinstallation.

4. Store components, protected from construction operations, until reinstalled.
- F. Remove demolished materials from site except where specifically noted otherwise. Do not burn or bury materials on site.
- G. Remove materials as Work progresses. Upon completion of Work, leave areas in clean condition.
- H. Remove temporary Work.

### 3.5 DISPOSAL

- A. General: Demolished materials become property of the Contractor and shall be removed from premises, except those items specifically listed to be retained by Owner.
- B. Haul Routes:
  1. General: Establish haul routes in advance; post flagmen for the safety of the public and workmen.
  2. Maintenance: Keep streets free of mud, rubbish, etc., assume responsibility for damages resulting from hauling operations; hold Owner free of liability in connection therewith

### 3.6 SCHEDULES

- A. Remove, store and protect the following materials and equipment for reinstallation in the project.
  1. N/A
- B. Remove the following equipment and materials for Owner's retention. Deliver to location designated by Owner.
  1. N/A
- C. Protect the following materials and equipment remaining.
  1. Designated (e) exterior cement plaster wall and soffit finish and wood overhangs and walkway covers, steps, railings and other exterior elements as noted on the plans.
  2. Designated (e) doors and frames.
  3. Designated (e) plumbing, mechanical and electrical items as noted on the plans.
- D. Demolish the following materials and equipment remaining.
  1. Designated (e) AC and concrete paving.
  2. Other elements as noted on the plans.

### 3.7 REPLACEMENT

- A. In the event items are mistakenly demolished, promptly notify the Architect. Contractor shall replace the demolished item to the approval of the Architect at no additional cost to the Owner.

END OF SECTION

SECTION 07 92 00  
JOINT SEALERS

## PART I – GENERAL

## 1.01 SECTION INCLUDES

- A. Preparing sealant substrate surfaces.
- B. Sealant and backing.

## 1.02 REFERENCES

- A. ASTM C834 – Latex Sealing Compounds.
- B. ASTM D1056 – Flexible Cellular Materials – Sponge or Expanded Rubber.
- C. FS TT-S-227 – Sealing Compound: Elastomeric Type, Multi-Component.
- D. FS TT-S-230 – Sealing Compound: Elastomeric Type, Single Component.
- E. FS TT-S-1543a – Sealing Compound: Silicone Type.
- F. FS TT-S-001657 – Sealing Compound: Single Component, Butyl Rubber Based.

## 1.03 SUBMITTALS FOR REVIEW

- A. Submit product data under provisions of the contract.
- B. Submit product data indicating sealant chemical characteristics, performance criteria, limitations, color availability and shore hardness.
- C. Color of visible sealant to match adjacent painted surface unless specifically noted otherwise

## 1.04 QUALITY ASSURANCE

- A. Manufacturer: Company specializing in manufacturing the products specified in this Section with minimum five years experience.
- B. Applicator: Company Specializing in applying the work of this Section with minimum three years experience.
- C. Conform to Sealant and Waterproofers Institute requirements for materials.

## 1.05 FIELD SAMPLES

- A. Provide samples under provisions of the contract.
- B. Construct one field sample illustrating sealant type, color, and tooled surface, maximum 12 inches long, in each differing sealant application.
- C. Do not proceed with remainder of sealant application until approved by the Architect.
- D. Approved sample may remain as part of the Work. Disapproved sample shall be removed.

## 1.06 ENVIRONMENTAL REQUIREMENTS

- A. Maintain temperature and humidity recommended by the sealant manufacturer during and after installation. Deliver materials in unopened containers, store in dry, covered area.

## PART II – PRODUCTS

## 2.01 SEALANTS

- A. Use sealants selected from the following types, as indicated on drawings or as appropriate to the joint being sealed. Refer to schedule for additional approved applications.
  - 1. Type 1: One-part moisture curing Polyurethane sealant. FS TT-S-230C, Type II, non-sag, Class A DYNATROL I, manufactured by Pecora Corp., Harleysville, PA, SIKAFLEX-1a, manufactured by Silka Corp., Lyndhurst, NJ, or equal.
    - a. Elongation Capability: 25 percent.
    - b. Shore A Hardness Range: 20 to 40.
  - 2. Type 2: Multi-part Polyurethane Base. FS TT-S-227E, Class A, Type II, non-sag, DYNATROL II, manufactured by Pecora Corp., Harleysville, PA, SIKAFLEX-2c N/A, manufactured by Sika Corp., Lyndhurst, NJ, or equal.

- a. Elongation Capability: 50 percent.
  - b. Shore A Hardness Range: 20 to 35.
3. Type 3: One-part moisture curing Polyurethane sealant. FS TT-S-230C, Type 1, self leveling, Class A, UREXPAN NR-201, manufactured by Pecora Corp., Harleysville, PA, VULKEM 45, manufactured by MAMECO International Inc., Cleveland, OH, or equal.
  - a. Elongation Capability: 25 percent.
  - b. Shore A Hardness Range: 35.
4. Type 4: Multi-part Polyurethane Base. FS TT-S-227, Type I, self-leveling, Class A, DYNATRED or UREXPAN NR-200, manufactured by Sika Corp., Harleysville, PA, SIKAFLEX-2c N/A, manufactured by Sika Corp., Lyndhurst, NJ or equal.
  - a. Elongation Capability: 250 – 300 percent.
  - b. Shore A Hardness Range: 40.
5. Type 5: One-part Silicone Sealant. FS TT-S-1543a Type S, non-sag, Class A, 863 ACETOXY Silicone Sealant, manufactured by Pecora Corp., Harleysville, PA, SCS 1200, manufactured by General Electric Co., Waterford, NY, or equal.
  - a. Elongation Capability: 25 percent.
  - b. Shore A Hardness Range: 27.
6. Type 6: One-part, non-sag, acrylic latex sealing compound, ASTM C834, AC-20 manufactured by Pecora Corp., Harleysville, PA, ACRYLIC LATEX No. 834 manufactured by Tremco, Beachwood, OH, or equal.
7. Type 7: One-part, non-sag, butyl rubber base acoustical sealant ASTM C834, BA-98, manufactured by Pecora Corp., Harleysville, PA, SHEETROCK ACOUSTICAL SEALANT manufactured by USG, Chicago, IL, or equal.

## 2.02 ACCESSORIES

- A. Primer: Non-staining type, recommended by sealant manufacturer to suit application.
- B. Joint Cleaner: Non-corrosive and non-staining type, recommended by sealant manufacturer; compatible with joint forming materials.
- C. Joint Backing: ASTM D1056; round, closed cell polyethylene foam rod; oversized 25 percent larger than joint width; DENVERFOAM or GREENROD, manufactured by Pecora Corp., Harleysville, PA. SONOFOAM BACKER ROD, manufactured by Sonneborn building Products, Minneapolis, MN, or equal.
- D. Bond Breaker: Pressure sensitive tape recommended by sealant manufacturer to suit application. Apply to bottom of joints which are too shallow to receive foam backer rod.
- E. Sealant Tape: Butyl sealant tape between sheet metal laps and at concealed locations. ADCO GT-206 or approved equal.

## 2.03 FIRESTOP SEALANTS

- A. Refer to Section 07 27 00, Fire stopping if applicable.

## PART III – EXECUTION

### 3.01 EXAMINATION

- A. Verify that joint openings are ready to receive work and field measurements are as shown on Drawings and recommended by the manufacturer.
- B. Beginning of installation means installer accepts existing surfaces.

### 3.02 PREPARATION

- A. Clean and prime joints in accordance with manufacturer's instructions.
- B. Remove loose materials and foreign matter which might impair adhesion of sealant. Remove dust with compressed air.
- C. Verify that joint backing and release tapes are compatible with sealant.
- D. Perform preparation in accordance with manufacturer's recommendations.
- E. Protect elements surrounding the work of this Section from damage or disfiguration.

### 3.03 INSTALLATION

- A. Install sealant in accordance with manufacturer's instructions, using hand pointing tools, hand-operated pressure guns or air operated guns with reciprocal pumps and hoses.
- B. Measure joint dimensions and size materials to achieve required width/depth ratios.
- C. Install joint backing to achieve a neck dimension no greater than 1/3 the joint width. Where sealant is applied to concrete, concrete is to be fully cured.
- D. Install bond breaker where joint backing is not used. Install removable masking material to maintain clean lines and protect adjoining surfaces.
- E. Apply sealant within recommended application temperature ranges. Consult manufacturer when sealant cannot be applied within these temperature ranges. Do not install sealant on wet or damp surfaces.
- F. Install sealant free of air pockets, foreign embedded matter, ridges, and sags.
- G. Tool joints concave, channel shaped or as detailed. Use slicking agent type recommended by manufacturer.

### 3.04 CLEANING AND REPAIRING

- A. Clean adjacent soiled surfaces immediately before sealant cures.
- B. Repair or replace defaced or disfigured finishes caused by work of this Section.

### 3.05 PROTECTION OF FINISHED WORK

- A. Protect finished installation from the work of other sections.
- B. Protect sealants until cured.

### 3.06 SCHEDULE

- A. Exterior Joints; Unless Specified Otherwise in Individual Sections:
  - 1. Joints between metal frames and concrete or masonry: Sealant Type (1).
  - 2. Joints Between Impervious Materials: Sealant Type (1).
  - 3. Vertical Expansion and Control Joints: Sealant Type (2).
  - 4. Joints in sheet metal flashings: Sealant Type (1).
  - 5. Perimeters of window frames, door frames, louvers and similar openings, and where metal, wood or other materials abut or join masonry, concrete or each other: Sealant Type (1).
  - 6. Horizontal expansion, control and abutment joints in sidewalks, concrete floors: Sealant Type (4). Joints where a self-leveling sealant cannot be used because of slope: Sealant Type (2).
  - 7. Glass glazing, cap beads (on glass), to metal and surfaces made of a silica substance: Sealant Type (5).
- B. Interior Joints; Unless Specified Otherwise in Individual Sections:
  - 1. Vertical expansion and control joints: Sealant Type (1).
  - 2. Joints between impervious materials: Sealant Type (1).
  - 3. Horizontal expansion, control, isolation and abutment joints: Sealant Type (3) or (4).
  - 4. Window and door perimeters: Sealant Type (1).
  - 5. Gypsum Board Joints: Sealant Type (1).
  - 6. For sink, tub or bath areas including countertop joints: Sealant Type (5).
  - 7. Other interior joints as indicated or shown: Sealant Type (1).
  - 8. Intersection of wall surface and cap strip at resilient flooring integral cove: Sealant Type (1).
  - 9. Intersection of metal or wood thresholds and floor substrate, where building components are mechanically attached and required sealing: Sealant Type (6).

10. Perimeter of sound-rated walls, at intersection of gypsum board and abutting surfaces, both sides of wall: Sealant Type (7).

END OF SECTION



SECTION 09 91 00  
PAINTING

## 1 PART 1 GENERAL

## 1.1 WORK INCLUDED

- A. Surface preparation.
- B. Prime coat application.
- C. Finish coat application.

## 1.2 WORK EXCLUDED

- A. Unless specifically noted otherwise, the following items shall not be painted:
  - 1. Prefinished wall, ceiling and floor coverings.
  - 2. Items with factory-applied final finish except roof-mounted equipment or electrical panels, or equipment on painted walls. All visible roof-mounted equipment and electrical equipment on painted walls (interior and exterior) shall be painted.
  - 3. Concealed ducts, pipes and conduit.
  - 4. Glass, plastic laminate, ceramic tile, anodized aluminum.
  - 5. Steel items embedded in concrete. Exposed areas shall be painted.
  - 6. Surfaces specifically scheduled or noted on the drawings as not to be painted.
  - 7. Fire-Rated Labels on Doors or Frames.
  - 8. Exterior Tags on Modular Buildings

## 1.3 REFERENCES

- A. AQMD – Local Air Quality Management District, Regulations.
- B. ASTM D4442 - Standard Test Methods for Direct Moisture Content Measurement of Wood and Wood-Base Materials.
- C. ASTM D4444 – Use and Calibration of Hand-Held Moisture Meters.
- D. ASTM D523 – Standard Test Method for Specular Gloss
- E. SSPC – Scopes of Surface Preparation Standards and Specifications

## 1.4 QUALITY ASSURANCE

- A. Product Manufacturer: Company specializing in manufacturing quality paint and finish products with a minimum of ten years experience.
- B. Applicator: Company specializing in commercial painting and finishing with a minimum of five years experience.

## 1.5 REGULATORY REQUIREMENTS

- A. Conform to AQMD Regulations concerning VOC Emissions.
- B. Comply with applicable codes and regulations of governmental agencies having jurisdiction including those having jurisdiction over airborne emissions and industrial waste disposal. Where those requirements conflict with this Specification, comply with the more stringent provisions.

## 1.6 SUBMITTALS FOR REVIEW

- A. Submit product data under provisions of the contract.
- B. Provide product data on all finishing products.
- C. Submit samples under provisions of the contract.
- D. Submit three samples, on rigid backing, 8-1/2 inch x 11 inch in size for each type of paint system, each color, and gloss of topcoat scheduled for selection.
- E. Prepare wood samples on type and quality of wood specified.
- F. Submit manufacturer's application instructions under provisions of the contract.

**1.7 FIELD SAMPLES**

- A. Provide samples under provisions of the contract.
- B. Provide field sample panel, illustrating coating color, texture and finish for each color scheduled.
- C. Locate as approved by Architect.
- D. Approved sample may remain as part of the Work.
- E. Do not proceed with coating application until sample panel has been approved.

**1.8 DELIVERY, STORAGE AND HANDLING**

- A. Deliver products to site in sealed and labelled containers.
- B. Container labeling to include manufacture's name, type of paint, brand name, brand code, coverage, surface preparation, drying time, cleanup, color designation and instructions for mixing and reducing.
- C. Store paint materials in well-ventilated areas with ambient temperatures continuously maintained at not less than 45 degrees F or more than 90 degrees F unless permitted otherwise by manufacturer's instructions.
- D. Take precautionary measures to prevent fire hazards and spontaneous combustion.

**1.9 ENVIRONMENTAL REQUIREMENTS**

- A. Provide continuous ventilation and heating facilities to maintain surface and ambient temperatures above 45 degrees F for 24 hours before, during and 48 hours after application of finishes, unless permitted otherwise by manufacturer's instructions.
- B. Do not apply exterior coatings during rain, or when relative humidity is above 50 percent, unless permitted otherwise by manufacturer's instructions.
- C. Minimum Application Temperatures for Latex Paints: 45 degrees F for interiors; 50 degrees F for exterior; unless required otherwise by manufacturer's instructions.
- D. Minimum Application Temperature for Varnish and transparent Finishes: 65 degrees F for interior or exterior, unless permitted otherwise by manufacturer's instructions.
- E. Provide lighting level sufficient to conduct painting operations.

**1.10 EXTRA STOCK**

- A. Provide an extra stock equaling ten percent (10%) of each color, type and gloss of paint used on the Work, but not more than five gallons for each.
  - 1. Label each container with color, texture and room locations in addition to the manufacturer's label.

**1.11 GUARANTEE**

- A. Guarantee the painting work against peeling, fading, cracking, blistering or crazing for a period of two years from the Date of Substantial Completion.

**2 PART 2 PRODUCTS****2.1 MANUFACTURERS**

- A. Dunn-Edwards, CA. Basis of design is shown in the paint schedules below. Model numbers listed in the schedule below may need adjustment based on the current paints provided by manufacturer.

**2.2 MATERIALS**

- A. Coatings: Ready mixed, except field catalyzed coatings. Prepare pigments to a soft paste consistency, capable of being readily and uniformly dispersed to a homogeneous coating.
- B. Colors and Glosses: The Architect will select colors to be used in the various types of paint specified and will be the sole judge of acceptability of the various glosses obtained from the materials proposed to be used in the Work. Architect will select **a minimum of 4 colors for the interior and 4 colors for the exterior, per building.** If the building is over

6,000 square feet, the architect may select **up to 6 colors for the interior, with no more than 4 colors being used in any single room.**

1. Preliminary Interior Sheen Schedule (final sheens to be verified with Architect):
    - a. Gypsum Board – All areas other than restrooms: Satin
    - b. Gypsum Board at restrooms: Semi-gloss
    - c. Handrails, Metal Doors & Frames, other metals: Gloss
    - d. Interior Wood: Semi-gloss or clear coat
    - e. Ceiling Tiles: Satin
    - f. Exposed Ductwork: Satin or Semi-gloss
  2. Preliminary Exterior Sheen Schedule (final sheens to be verified with architect):
    - a. Cement Plaster: Satin or Semi-Gloss
    - b. Metal fascia, leader-heads, rainwater leaders, downspouts, perforated metals, miscellaneous metals: Semi-gloss
    - c. Handrails, Metal Doors & Frames: Gloss
    - d. Exterior Wood: Semi-gloss or Satin
    - e. Mechanical louvers, metal trim, expansion joints, other metals within the cement plaster system: Satin or Semi-gloss
- C. Undercoats and Thinners: Provide undercoat paint produced by the same manufacturer as the finish coat. Use only the thinners recommended by the paint manufacturer and use only to be recommended limits. Insofar as practicable, use undercoat, finish coat and thinner material as parts of a unified system of paint finish.
- D. Coatings: Good flow and brushing properties; capable of drying or curing free of streaks or sags.
- E. Accessory Materials: Linseed oil, shellac, turpentine, paint thinners and other materials not specifically indicated but required to achieve the finishes specified of commercial quality.
- 2.3 APPLICATION EQUIPMENT
- A. For application of the approved paint, use only such equipment as is recommended by the manufacturer.
- B. Compatibility: Prior to actual use of application equipment, use all means necessary to verify that the proposed equipment is actually compatible with the material to be applied and that the integrity of the finish will not be jeopardized by use of the proposed application equipment.
- 2.4 FINISHES
- A. Refer to schedule at end of section for surface finish. Notwithstanding product numbers listed in schedule, Contractor shall conform to most recent product numbers as published by the manufacturer.

### 3 PART 3 EXECUTION

#### 3.1 INSPECTION

- A. Verify that surfaces are ready to receive work as instructed by the product manufacturer.
- B. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially affect proper application not identified to be prepared by you under section 3.3.
- C. Measure moisture content of new surfaces using an electronic moisture meter. Do not apply finishes unless moisture content of surfaces are below the following maximums:
  1. Plaster and Gypsum Wallboard: 12 percent.
  2. Masonry, Concrete, and Concrete Unit Masonry: 12 percent.
  3. Interior Located Wood: 15 percent, measured in accordance with ASTM D4442 and ASTM D4444.

4. Exterior Located Wood: 19 percent, measured in accordance with ASTM D4442 and ASTM D4444.
- D. Beginning of installation means acceptance of existing surfaces.
- 3.2 MATERIALS PREPARATION
- A. Mix and prepare painting material in accordance with manufacturer's recommendations.
  - B. Store materials not in actual use in tightly covered containers.
  - C. Maintain containers used in storage, mixing and application of paint in a clean condition, free from foreign materials and residue.
  - D. Stir all materials before application to produce a mixture of uniform density and as required during the application of materials. Do not stir into the material any film which may form on the surface. Remove the film and strain the material before using.
- 3.3 SURFACE PREPARATION
- A. Remove electrical plates, hardware, light fixture trim and fittings prior to preparing surfaces or finishing.
  - B. Correct minor defects and clean surfaces which affect work of this Section.
  - C. Shellac and seal marks which may bleed through surface finishes.
  - D. Impervious Surfaces: Remove mildew by scrubbing with solution of tri-sodium phosphate and bleach. Rinse with clean water and allow surface to dry.
  - E. Insulated Coverings: Remove dirt, grease, and oil from canvas and cotton.
  - F. Gypsum Board Surfaces: Fill minor defects, joints and nail head depressions with spackling compound. Prime in accordance with primer manufacturer's recommendations.
  - G. Galvanized Surfaces: Remove surface contamination and oils and wash with solvent. Apply coat of etching primer as specified in schedule. When time permits, allow to weather a minimum of 6 months prior to coating. Clean per SSPC-SP1 using detergent and water or a degreasing cleaner, then prime as required. When weathering is not possible or surface has been treated with chromates or silicates, clean all galvanized metal with appropriate metal prep and passivator remover. To ensure passivator has been removed, perform the following test:
    - a. With a 2% to 5% copper sulfate solution, place a swab or droplets to the prepared area. If copper sulfate causes the galvanized to blacken, the passivator has been removed and is ready for paint application.
    - b. If the copper sulfate has no effect on the galvanized, continue with metal prep solution or use a Scotch pad to abrade it, being careful not to remove the galvanization itself. Apply the required primer, allow drying as described in the product data sheets and test adhesion prior to applying required finish coats.
  - H. Concrete and Unit Masonry Surfaces Scheduled to Receive Paint Finish: Remove dirt, loose mortar, scale, salt or alkali powder, and other foreign matter. Remove oil and grease with a solution of tri-sodium phosphate; rinse well and allow to dry. Remove stains caused by weathering or corroding metals with a solution of sodium metasilicate after thoroughly wetting with water. Allow to dry.
  - I. Plaster Surfaces: Fill hairline cracks, small holes, and imperfections with patching plaster. Make smooth and flush with adjacent surfaces. Wash and neutralize high alkali surfaces.
  - J. Uncoated Steel and Iron Surfaces: Remove grease, scale, dirt, and rust. Where heavy coatings of scale are evident, remove by wire brushing or sandblasting; clean by washing with solvent. Apply a treatment of phosphoric acid solution, ensuring weld joints, bolts, and nuts are similarly cleaned. Spot prime paint after repairs.
  - K. Shop Primed Steel Surfaces: Sand and scrape to remove loose primer and rust. Feather edges to make touch-up patches inconspicuous. Clean surfaces with solvent. Prime bare steel surfaces.

- L. Wood Scheduled to Receive Paint Finish: Remove dust, grit and foreign matter. Seal knots, pitch streaks, and sappy sections. Fill nail holes with tinted exterior caulking compound after prime coat has been applied.
- M. Wood Doors and Cabinet Work scheduled for field-applied transparent or solid stain finish:
  - 1. Sand surfaces thoroughly with a 5/0, 180 grit sandpaper.
  - 2. Apply coatings as specified in the schedule to all surfaces, sides and edges, all six sides. Avoid streaking or uneven application.
- N. Wood Doors Scheduled for Painting: Seal top, bottom and all edges with primer and then paint. Leave labels intact and readable.
- O. Glue-Laminated Beams: Prior to finishing, wash surfaces with solvent, remove grease and dirt.
- P. Painted Steel Posts, Downspouts, Etc: Wire brush any loose or flaking paint. Scrape any bubbles and wire brush back to a point where paint has solid adhesion. Spot prime areas prior to final application of finish.
- Q. Aluminum scheduled to be painted shall be cleaned and etched as recommended by the manufacturer for proper application of finish.

### 3.4 PROTECTION

- A. Protect elements surrounding the work of this Section from damage or disfiguration.
- B. Repair damage to other surfaces caused by work of this Section.
- C. Furnish drop cloths, shields and protective methods to prevent spray or droppings from disfiguring other surfaces.
- D. Remove empty paint containers from site.

### 3.5 APPLICATION

- A. Apply products in accordance with manufacturer's instructions.
- B. Do not apply finishes to surfaces that are not dry.
- C. Apply each coat to uniform finish. [Number of coats specified is a minimum.](#) Additional coats shall be applied at no extra cost, if coatings show evidence of uneven application, uneven pigmentation, brush strokes or otherwise unsatisfactory distribution of material.  
[Note: back roll after each application.](#)
- D. Under coats shall be lighter and brighter in tint than finish coat.
- E. Sand lightly between coats to achieve required finish.
- F. Allow applied coat to dry before next coat is applied.
- G. Where clear finishes are required, tint fillers to match wood. Work fillers into the grain before set. Wipe excess from surface.
- H. Prime concealed surfaces of interior and exterior woodwork with primer paint.
- I. Prime back surfaces of interior woodwork scheduled to receive stain or varnish finish with gloss varnish reduced 25 percent with mineral spirits.
- J. Seal Tops, bottoms and cutouts for hardware and accessories of wood or plastic laminate covered doors.
- K. Split paint door frames to match color of walls on each side of opening.

### 3.6 FINISHING MECHANICAL AND ELECTRICAL EQUIPMENT

- A. Refer to Section Divisions 22, 23, 26 for color coding and identification banding requirements of equipment, duct work, piping, and conduit.
  - 1. Unless otherwise indicated, conform to the following color coding system:

TYPE of PIPING	PRODUCT NUMBER	COLOR
Chilled Water	Ameritone 1986	Vista Gray
Condenser Water	Sinclair 7532	Canvas Tan
Domestic Hot Water	Sinclair 7518	Admiral Blue

Domestic Cold Water	Sinclair 7530	Edison Blue
Plant Air	Copper	Clear Lacquer
Vacuum	Sinclair 7500	Shasta White
Oxygen	Sinclair 7535	John Deere Green
Cold Soft Water	Sinclair 7575	OSHA Violet
Steam	Sinclair 7534	Caterpillar Yellow
Hot Water	Sinclair 7533	Ferguson Gray
Soil Waste	Sinclair 7531	Loam Brown
Fire	Sinclair 7570	OSHA Red
Fuel Gas	Sinclair 7572	OSHA Orange
Deionized Water		Light Blue

2. Verify appropriate specific color designations with paint manufacturer.
  3. Conform to Owner's special requirements for color coding. Match existing coding system where required.
- B. Paint shop primed equipment.
  - C. Remove all (finished and unfinished) louvers, grilles, covers, and access panels on mechanical and electrical components and paint separately.
  - D. Prime and paint insulated and exposed pipes, conduit, boxes, insulated and exposed ducts, hangers, brackets, collars and supports, except where items are shop finished and confirmed with architect not to paint.
  - E. Replace identification markings on mechanical or electrical equipment when painted accidentally.
  - F. Paint interior surfaces of air ducts that are visible through grilles and louvers with one coat of flat black paint, limit of sight line. Paint dampers exposed behind louvers and grilles, to match face panels.
  - G. Paint exposed conduit and electrical equipment occurring in finished areas.
  - H. Paint both sides and edges of plywood backboards for electrical and telephone equipment before installing equipment.
  - I. Color code equipment, piping, conduit, and exposed ductwork in accordance with requirements indicated. Color band and identify with flow arrows names and numbering, using stencils or other approved systems.
  - J. Replace electrical plates, hardware, light fixture trim and fittings removed prior to finishing.

### 3.7 CLEANING

- A. As Work proceeds, promptly remove paint where spilled, splashed, or spattered.
- B. During progress of Work maintain premises free of unnecessary accumulation of tools, equipment, surplus materials and debris.
- C. Collect cotton waste, cloths, and material which may constitute a fire hazard, place in closed metal containers, and remove daily from site.

### 3.8 SCHEDULE – EXTERIOR SURFACES (PM to select relevant schedules based on Project Requirements)

#### EXTERIOR SURFACES – DUNN EDWARDS SPARTASHIELD

SUBSTRATE	PRIMER	FLAT	LOW SHEEN	SEMI-GLOSS
	1 coat	2 coats	2 coats	2 coats
Aluminum	ULGM00	SSHL10	Not applicable	
Cement Plaster	FPSL00	SSHL10	SSHL40	
Concrete	FPSL00	SSHL10	SSHL40	
CMU	SBPR00	SSHL10	SSHL40	
Galvanized	ULGM00	SSHL10	Not applicable	
Steel – factory primed	ENPR00	SSHL10	Not applicable	ENCT50

Wood	EZPR00	SSHL10	Not applicable	SSHL50
------	--------	--------	----------------	--------

\*\*\*\*\***SELECT FROM SPECIALTY FINISHES/COATINGS BELOW**\*\*\*\*\*

**EXTERIOR SURFACES – DUNN EDWARDS – SPECIALTY – SEMI-GLOSS & GLOSS**

SUBSTRATE	PREP	PRIMER	SEMI-GLOSS	GLOSS
	<b>Per AAMP-SSPC</b>	<b>1 coat</b>	<b>2 coats</b>	<b>2 coats</b>
Aluminum (bare)	(SP)-1: Krud Kutter Metal Clean	ULGM00	ENCT50	ASHL70
Galvanized (bare)	(SP)-1: Krud Kutter Metal Clean	ULGM00	ENCT50	ASHL70
Steel (bare)	(SP)-1: Krud Kutter Metal Clean	ENPR00		ASHL70
Wood		S-30 GRIPTEC		S-39 BEYOND

**EXTERIOR SURFACES – DUNN EDWARDS – SPECIALTY – WOOD STAINS**

APPEARANCE	STAIN	COATS
TRANSPARENT	Cabot Gold	2
SOLID	STSE10	2
CLEAR – sheen to be selected by AOR	Old Master Spar Marine Varnish	3

**EXTERIOR SURFACES – DUNN EDWARDS – SPECIALTY – ELASTOMERIC**

SUBSTRATE	PRIMER	ELASTOMERIC
	<b>1 coat</b>	<b>2 coats</b>
Cement Plaster	FPLS00	EDLX10
Concrete	FPSL00	EDLX10
CMU	SBPR00	EDLX10

3.9 SCHEDULE – INTERIOR SURFACES

**INTERIOR SURFACES – DUNN EDWARDS SPARTA**

SUBSTRATE	PRIMER	FLAT	EGGSHELL	SEMI-GLOSS
	<b>1 coat</b>	<b>2 coats</b>	<b>2 coats</b>	<b>2 coats</b>
Acoustic tiles	UGPR00	SZRO10	N/A	N/A
Aluminum				
Cement Plaster	UGPR00	SZRO10	SWLL30	
Concrete*	UGPR00	SZRO10	SWLL30	
CMU	UGPR00	SZRO10	SWLL30	
Galvanized				
Gypsum Board	UGPR00	SZRO10/ SWLL10	SWLL30	SWLL50
Steel (factory primed)	ENPR00	SPMA10		ENCT50
Wood	BIPR00/ UGPR00	SZRO10	SWLL30	SWLL50

\*At new concrete, follow curing guidelines and prime with [EFF-STOP ESSL00](#)

#### INTERIOR SURFACES – DUNN EDWARDS – SPECIALTY

SUBSTRATE	PREP	PRIMER	FLAT	SEMI-GLOSS	GLOSS
	<b>Per AAMP-SSPC</b>	<b>1 coat</b>	<b>2 coats</b>	<b>2 coats</b>	<b>2 coats</b>
Aluminum (bare)	(SP)-1: Jasco Prep & Prime	ENPR00	SPMA10	ENCT50	ENCT60
Galvanized (bare)	(SP)-1: Jasco Prep & Prime	ENPR00	SPMA10	ENCT50	ENCT60
Steel (bare)	(SP)-1: <b>Krud Kutter Metal Clean</b>	ENPR00			
<b>Wood</b>		S-30 GRIPTEC			

#### INTERIOR SURFACES – DUNN EDWARDS – SPECIALTY – WOOD STAINS

APPEARANCE	PREP	PRIMER	FLAT/ SATIN	SEMI-GLOSS	GLOSS
	<b>1 coat</b>	<b>1 coat</b>	<b>2 coats</b>	<b>2 coats</b>	<b>2 coats</b>
Transparent, Non-yellowing Lacquer	GEMINI CC2401	GEMINI PC275-0100	GEMINI PC275-0010	GEMINI PC275-0060	GEMINI PC275-0090
High Solids	Old Masters Stain	Old Masters Armor Int. Water-based finish – select sheen based on adjacent column	Old Masters Armor Int. Water-based Finish 72101 (SATIN)	Old Masters Armor Int. Water-based Finish 72201	Old Masters Armor Int. Water-based Finish 72301
		Old Masters Armor Int. Water-based finish <a href="#">72432 (OPTIONAL HARDENER)</a>			

### 3.10 SPECIAL COATINGS

The matrix below applies to **ALL** exterior metal handrails, guardrails, ornamental metal fences and gates, flagpole and exterior stairs. Application shall total 5.5 to 8.5 mil thickness or as recommended by the manufacturer:

SUBSTRATE	SHEEN	PRIMER	FINISH
		<b>1 coat</b>	<b>1 coat</b>
Steel / ferrous Unprimed OR shop primed	Semi-Gloss	RustBond PS	Carbothane 133
	Gloss	RustBond PS	Carbothane 134
Galvanized or Aluminum	High satin/ low semi-gloss	Carboguard 1340WB	Carbothane 133
	Gloss	Carboguard 1340WB	Carbothane 134

END OF SECTION



## **SECTION 260500**

### **GENERAL ELECTRICAL REQUIREMENTS**

#### **PART 1 - GENERAL**

##### **1.01 Description of Work:**

- A. The work of this Section consists of providing all required labor, supervision, materials and equipment to satisfactorily complete all electrical installations that are shown on the Drawings, included in these specifications, or otherwise needed for a complete and fully operating facility.
- B. Furnish and install all required in-place equipment, conduits, conductors, cables and any miscellaneous materials for the satisfactory interconnection and operation of all associated electrical systems.

##### **1.02**

- A. This Section provides the basic Electrical Requirements which supplement the General Requirements of Division 01 and apply to all Sections of Division 26.

##### **1.03 Submittals:**

- A. As specified in Division 01. Submit to the Architect shop drawings, manufacturer's data and certificates for equipment, materials and finish, and pertinent details for each system specified. Information to be submitted includes manufacturer's descriptive literature of cataloged products, equipment, drawings, diagrams, performance and characteristic curves as applicable, test data and catalog cuts. Obtain written approval before procurement, fabrication, or delivery of the items to the job site. Partial submittals are not acceptable and will be returned without review. Furnish manufacturer's name, trade name, catalog model or number, nameplate data, size, layout dimensions, capacity, project specification and paragraph reference, applicable Federal, Industry and Technical Society Publication References, and years of satisfactory service of each item required to establish contact compliance. Photographs of existing installations and data submitted in lieu of catalog data are not acceptable and will be returned without approval.
- B. Organize submittals for equipment and items related to each specification section together as a package.
- C. Proposed substitutions of products will not be reviewed or approved prior to awarding of the Contract.
- D. Substitutions shall be proven to the Architect or Engineer to be equal or superior to the specified product. Architect's decision is final. The Contractor shall pay all costs incurred by the Architect and Engineer in reviewing and processing any proposed substitutions whether or not a proposed substitution is accepted.
- E. If a proposed substitution is rejected, the contractor shall furnish the specified product at no increase in contract price.
- F. If a proposed substitution is accepted, the contractor shall be completely responsible for all dimensional changes, electrical changes, or changes to other work which are a result of the substitution. The accepted substitution shall be made at no additional cost to the owner or design consultants.

1.04 Quality Assurance:

- A. Codes: All electrical equipment and materials, including installation and testing, shall conform to the latest editions following applicable codes:
  - 1. California Electrical Code (CEC).
  - 2. Occupational Safety and Health Act (OSHA) standards.
  - 3. All OSHPD Level 3 Requirements.
  - 4. All applicable local codes, rules and regulations.
  - 5. Electrical Contractor shall possess a C-10 license and all other licenses as may be required. Licenses shall be in effect at start of this contract and be maintained throughout the duration of this contract.
- B. Variances: In instances where two or more codes are at variance, the most restrictive requirement shall apply.
- C. Standards: Equipment shall conform to applicable standards of American National Standards Institute (ANSI), Electronics Industries Association (EIA), Institute of Electrical and Electronics Engineers (IEEE), and National Electrical Manufacturers Association (NEMA).
- D. Underwriter Laboratories (UL) listing is required for all equipment and materials where such listing is offered by the Underwriters Laboratories. Provide service entrance labels for all equipment required by the NEC to have such labels.
- E. The electrical contractor shall guarantee all work and materials installed under this contract for a period of one (1) year from date of acceptance by owner.
- F. All work and materials covered by this specification shall be subject to inspection at any and all times by representatives of the owner. Work shall not be closed in or covered before inspection and approval by the owner or his representative. Any material found not conforming with these specifications shall, within 3 days after being notified by the owner, be removed from premises; if said material has been installed, entire expense of removing and replacing same, including any cutting and patching that may be necessary, shall be borne by the contractor.

1.05 Drawings:

- A. Drawings: The Electrical Drawings shall govern the general layout of the completed construction.
  - 1. Locations of equipment, panels, pullboxes, conduits, stub-ups, ground connections are approximate unless dimensioned; verify locations with the Architect prior to installation.
  - 2. Review the Drawings and Specification Divisions of other trades and perform the electrical work that will be required for those installations.
  - 3. Should there be a need to deviate from the Electrical Drawings and Specifications, submit written details and reasons for all changes to the Architect for approval.
  - 4. The general arrangement and location of existing conduits, piping, apparatus, etc., is approximate. The drawings and specifications are for the assistance and guidance of the contractor, exact locations, distances and elevations are governed by actual field conditions. Accuracy of data given herein and on the drawings is not guaranteed. Minor changes may be

necessary to accommodate work. The contractor is responsible for verifying existing conditions. Should it be necessary to deviate from the design due to interference with existing conditions or work in progress, claims for additional compensation shall be limited to those for work required by unforeseen conditions as determined by the Architect.

5. All drawings and divisions of these specifications shall be considered as whole. This contractor shall report any apparent discrepancies to the Architect prior to submitting bids.
6. The contractor shall be held responsible to have examined the site and compared it with the specifications and plans and to have satisfied himself as to the conditions under which the work is to be performed. He shall be held responsible for knowledge of all existing conditions whether or not accurately described. No subsequent allowance shall be made for any extra expense due to failure to make such examination.

1.06 Closeout Submittals:

- A. Manuals: Furnish manuals for equipment where manuals are specified in the equipment specifications or are specified in Division 01.

1.07 Coordination:

- A. Coordinate the electrical work with the other trades, code authorities and the Architect.
- B. Contractor shall pay all inspection and other applicable fees and procure all permits necessary for the completion of this work.
- C. For all work requiring interruption of existing circuits, use of owner's facilities, or disruption or interruption of on-going owner activities shall be coordinated with and approved in advance by the owner, in writing.
- D. When two trades join together in an area, make certain that no electrical work is omitted.

1.08 Job Conditions:

- A. Operations: Perform all work in compliance with Division 01
  1. Keep the number and duration of power shutdown periods to a minimum.
  2. Show all proposed shutdowns and their expected duration on the construction schedule. Schedule and carry out shutdowns so as to cause the least disruption to operation of the Owner's facilities.
  3. Carry out shutdown only after the schedule has been approved, in writing, by the owner. Submit power interruption schedule 15 days prior to date of interruption.
- B. Construction Power: Unless otherwise noted in Division 01 of these specifications, contractor shall make all arrangements and provide all necessary facilities for temporary construction power from the owner's on site source. Energy costs shall be paid for by the Owner
- C. Storage: Provide adequate storage for all equipment and materials which will become part of the completed facility so that it is protected from weather, dust, water, or construction operations.

1.09 Damaged Products:

- A. Notify the Architect in writing in the event that any equipment or material is damaged. Obtain approval from the Architect before making repairs to damaged products.

1.10 Locations:

- A. General: Use equipment, materials and wiring methods suitable for the types of locations in which they are located.
- B. Dry Locations: All those indoor areas which do not fall within the definition below for Wet Locations and which are not otherwise designated on the Drawings.
- C. Wet Locations: Operating Rooms, Procedure Rooms and all locations exposed to the weather, whether under a roof or not, unless otherwise designated on the Drawings.

1.11 Safety and Indemnity:

- A. The Contractor is solely and completely responsible for conditions of the job site including safety of all persons and properly during performance of the work. This requirement will apply continually and not be limited to normal working hours. The contractor shall provide and maintain throughout the work site proper safeguards including, but not limited to, enclosures, barriers, warning signs, lights, etc. to prevent accidental injury to people or damage to property.
- B. No act, service, drawing review or construction review by the Owner, the Engineer or their Consultants is intended to include reviews of the adequacy of the Contractors safety measures in or near the construction site.
- C. The Contractor performing work under this Division of the Specifications shall hold harmless, indemnify, and defend the Owner, the Engineer, their consultants, and each of their officers, agents and employees from any and all liability claims, losses, or damage arising out of or alleged to arise from bodily injury, sickness, or death of a person or persons and for all damages arising out of injury to or destruction of property arising directly or indirectly out of or in connection with the performance of the work under this Division of the Specifications, and from the Contractor's negligence in the performance of the work described in the construction contract documents, but not including liability that may be due to the sole negligence of the Owner, the Engineer, their Consultants or their officers, agents and employees.
- D. The project work area does not contain asbestos materials. However, if a work area is encountered that does contain asbestos materials, the contractor is advised to coordinate with the owner and it's asbestos abatement consultant all measures necessary to provide installation of conduit, and hangers. All asbestos containing materials related work shall conform to the directions given by the owner. Nothing herein shall be construed to create a liability for Aurum Consulting Engineers regarding asbestos abatement measures.

1.12 Arc Flash:

- A. The contractor shall install a clearly visible arc flash warning to the inside door of all panelboards and industrial control panels, as well as to the front of all switchboards and motor control centers that are a part of this project.
- B. The warning shall have the following wording: line 1 "WARNING" (in large letters), line 2 "Potential Arc Flash Hazard" (in medium letters), line 3 & 4 "Appropriate Personal Protective Equipment and Tools required when working on this equipment".

1.13 Emergency Boxes:

- A. All boxes and enclosures for emergency circuits shall be permanently marked with a readily visible red spray painted mark.

## PART 2 - PRODUCTS

### 2.01 Standard of Quality:

- A. Products that are specified by manufacturer, trade name or catalog number establish a standard of quality and do not prohibit the use of equal products of other manufacturers provided they are established to be equal to the specified product and approved by the Architect prior to installation.
- B. Material and Equipment: Provide materials and equipment that are new and are current products of manufacturers regularly engaged in the production of such products. The standard products shall have been in satisfactory commercial or industrial use for two years prior to bid opening. The two-year period includes use of equipment and materials of similar size under similar circumstances. For uniformity, only one manufacturer will be accepted for each type of product.
- C. Service Support: Submit a certified list of qualified permanent service organizations including their addresses and qualification for support of the equipment. These service organizations shall be convenient to the equipment installation and able to render service to the equipment on a regular and emergency basis during the warranty period of the contract.
- D. Manufacturer's Recommendations: Where installation procedures are required to be in accordance with manufacturer's recommendations, furnish printed copies of the recommendations prior to installation. Installation of the item shall not proceed until recommendations are received. Failure to furnish recommendation shall be cause for rejection of the equipment or material.

### 2.02 Nameplates:

- A. For each piece of electrical equipment, provide a manufacturer's nameplate showing his name, location, the pertinent ratings, the model designation, and shop order number.
- B. Identify each piece of equipment and related controls with a rigid laminated engraved plastic nameplate. Unless otherwise noted, nameplates shall be melamine plastic 0.125 inch thick, white with black center core. Surface shall be matte finish. Corners shall be square. Accurately align lettering and engrave into the core. Minimum size of nameplates shall be 0.5 by 2.5 inches unless otherwise noted. Where not otherwise specified, lettering shall be a minimum of 0.25 inch high normal block style. Engrave nameplates with the inscriptions indicated on the Drawings and, if not so indicated, with the equipment name. Securely fasten nameplates in place using two stainless steel or brass screws.

### 2.03 Fasteners:

- A. Fasteners for securing equipment to walls, floors and the like shall be either hot-dip galvanized after fabrication or stainless steel.

### 2.04 Finish requirements:

- A. Equipment: Refer to each electrical equipment section of these Specifications for painting requirements of equipment enclosures. Repair any final paint finish which has been damaged or is otherwise unsatisfactory, to the satisfaction of the Architect.
- B. Wiring System: In finished areas, paint all exposed conduits, boxes and fittings to match the color of the surface to which they are affixed.

## PART 3 - EXECUTION

3.01 Workmanship:

- A. Ensure that all equipment and materials fit properly in their installation.
- B. Perform any required work to correct improperly fit installation at no additional expense to the owner.
- C. All electrical equipment and materials shall be installed in a neat and workmanship manner in accordance with the "NECA Standard of Installation and Workmanship Manual of the entire job shall be first class in every respect.

3.02 Equipment Installations:

- A. Provide the required inserts, bolts and anchors, and securely attach all equipment and materials to their supports.
- B. Do all the cutting and patching necessary for the proper installation of work and repair any damage done.
- C. Earthquake restraints: all electrical equipment, including conduits over 2 inches in diameter, shall be braced or anchored to resist a horizontal force acting in any direction as per Title 24, part 2, table 16a-o, part 3.
- D. Structural work: All core drilling, bolt anchor insertion, or cutting of existing structural concrete shall be approved by a California registered structural consulting engineer prior to the execution of any construction. At all floor slabs and structural concrete walls to be drilled, cut or bolt anchors inserted, the contractor shall find and mark all reinforcing in both faces located by means of x-ray, pach-ometer, or prof-ometer. Submit sketch showing location of rebar and proposed cuts, cores, or bolt anchor locations for approval.

3.03 Field Tests:

- A. Test shall be in accordance with Acceptance testing specifications issued by the National Electrical Testing Association (NETA).
- B. Perform equipment field tests and adjustments. Properly calibrate, adjust and operationally check all circuits and components, and demonstrate as ready for service. Make additional calibration and adjustments if it is determined later that the initial adjustments are not satisfactory for proper performance. Perform equipment field test for equipment where equipment field tests are specified in the equipment Specifications. Give sufficient notice to the Architect prior to any test so that the tests may be witnessed.
- C. Provide instruments, other equipment and material required for the tests. These shall be of the type designed for the type of tests to be performed. Test instrument shall be calibrated by a recognized testing laboratory within three months prior to performing tests.
- D. Operational Tests: Operationally test all circuits to demonstrate that the circuits and equipment have been properly installed and adjusted and are ready for full-time service. Demonstrate the proper functioning of circuits in all modes of operation, including alarm conditions.
- E. Re-testing will be required for all unsatisfactory tests after the equipment or system has been repaired. Re-test all related equipment and systems if required by the Architect. Repair and re-test equipment and systems which have been satisfactorily tested but later fail, until satisfactory performance is obtained.
- F. Maintain records of each test and submit five copies to the Architect when testing is complete. All tests shall be witnessed by the Architect. These records shall include:

1. Name of equipment tested.
2. Date of report.
3. Date of test.
4. Description of test setup.
5. Identification and rating of test equipment.
6. Test results and data.
7. Name of person performing test.
8. Owner or Architect's initials.

G. Items requiring testing shall be as noted in the additional electrical sections of these specifications.

#### 3.04 Cleaning Equipment:

- A. Thoroughly clean all soiled surfaces of installed equipment and materials.

#### 3.05 Painting of Equipment:

- A. Factory Applied: Electrical equipment shall have factory applied painting system which shall, as a minimum, meet the requirements of NEMA ICS 6 corrosion-resistance test and the additional requirements specified in the technical section.
- B. Field Applied: Paint electrical equipment as required to match finish of adjacent surfaces.

#### 3.06 Records:

- A. Maintain one copy of the contract Drawing Sheets on the site of the work for recording the "as built" condition. After completion of the work, the Contractor shall carefully mark the work as actually constructed, revising, deleting and adding to the Drawing Sheets as required. The following requirements shall be complied with:
  1. Cable Size and Type: Provide the size and type of each cable installed on project.
  2. Substructure: Where the location of all underground conduits, pull boxes, stub ups and etc. where are found to different than shown, carefully mark the correct location on the Drawings. Work shall be dimensioned from existing improvements.
  3. Size of all conduit runs.
  4. Routes of concealed conduit runs and conduit runs below grade.
  5. Homerun points of all branch circuit.
  6. Location of all switchgear, panels, MCC, lighting control panels, pullcans, etc.
  7. Changes made as a result of all approved change orders, addendums, or field authorized revisions.

8. As Builts: At the completion of the Work the Contractor shall review, certify, correct and turn over the marked up Drawings to the Architect for his use in preparing "as built" plans.
9. As built Drawings shall be delivered to the Architect within ten (10) days of completion of construction.

3.07 Clean Up:

- A. Upon completion of electrical work, remove all surplus materials, rubbish, and debris that accumulated during the construction work. Leave the entire area neat, clean, and acceptable to the Architect.

3.08 Mechanical and Plumbing Electrical Work:

- A. The requirements for electrical power and/or devices for all mechanical and plumbing equipment supplied and/or installed under this Contract shall be coordinated and verified with the following:
  1. Mechanical and Plumbing Drawings.
  2. Mechanical and Plumbing sections of these Specifications.
  3. Manufacturers of the Mechanical and Plumbing equipment supplied.
- B. The coordination and verification shall include the voltage, ampacity, phase, location and type of disconnect, control, and connection required. Any changes that are required as a result of this coordination and verification shall be a part of this Contract.
- C. The Electrical Contractor shall furnish and install the following for all mechanical and plumbing equipment:
  1. Line voltage conduit and wiring.
  2. Disconnect switches.
  3. Manual line voltage controls.
- D. Automatic line voltage controls and magnetic starters shall be furnished by the Mechanical and/or Plumbing Contractor and installed and connected by the Electrical Contractor. All line voltage control wiring installed by the Electrical Contractor shall be done per directions from the Mechanical and/or Plumbing Contractor.
- E. All low voltage control wiring for Mechanical and Plumbing equipment shall be installed in conduit. Furnishing, installation and connection of all low voltage conduit, boxes, wiring and controls shall be by the Mechanical and/or Plumbing Contractor.
- F. Manual motor starters, where required, shall have toggle type operators with pilot light and melting alloy type overload relays, SQUARE D COMPANY, Class 2510, Type FG-1P (surface) or Type FS-1P (flush) or ITE, WESTINGHOUSE or GENERAL ELECTRIC equal.

END OF SECTION



**SECTION 260519**

**LINE VOLTAGE WIRE AND CABLE**

**PART 1 - GENERAL**

**1.01 Description of Work:**

- A. The work of this Section consists of providing all wire and cable rated 600 volts or less, including splices and terminations, as shown on the Drawings and as described herein.

**1.02 Related Work:**

- A. See the following Specification Section for work related to the work in this Section:
  - 1. 16110 Conduits, Raceways and Fittings.
  - 2. 16130 Junction and Pull Boxes.

**1.03 Quality Assurance**

- A. Field tests shall be performed as specified in paragraph 3.04 of this Section.

**PART 2 - PRODUCTS**

**2.01 Conductors:**

- A. Conductors shall be copper, type THHN/THWN/MTW oil and gasoline resistant, 600 volt rated insulation.
- B. Conductors shall be stranded copper.
- C. Power and control wire size shall be No. 12 AWG minimum size (except for low voltage wiring and where specifically noted otherwise on the plans).
- D. All conductors used on this Project shall be of the same type and conductor material.

**2.02 Terminations:**

- A. Manufacturer - Terminals as manufactured by T&B, Burndy or equal.
- B. Wire Terminations - Stranded conductors shall be terminated in clamping type terminations which serve to contain all the strands of the conductor. Curling of a stranded conductor around a screw type terminal is not allowed. For screw type terminations use a fork type stake-on termination on the stranded conductor. Use only a stake-on tool approved for the fork terminals selected.
- C. End Seals - Heat shrink plastic caps of proper size for the wire on which used.

**2.03 Tape:**

- A. Tape used for terminations and cable marking shall be compatible with the insulation and jacket of the cable and shall be of plastic material.

### PART 3 - EXECUTION

#### 3.01 Cable Installation:

- A. Clean Raceways - Clean all raceways prior to installation of cables as specified in Section 16110 - Conduits Raceway and Fittings.
- B. All wiring including low voltage wiring shall be installed in conduit.
- C. All feeder conductors shall be continuous from equipment to equipment. Splices in feeders are not permitted unless specifically noted or approved by the Electrical Engineer.
- D. All branch circuit wiring shall be run concealed in ceiling spaces, walls, below floors or in crawl spaces unless noted otherwise.
- E. Cable Pulling - Exercise care in pulling wires and cables into conduit or wireways so as to avoid kinking, putting undue stress on the cables or otherwise abrading them. No grease will be permitted in pulling cables. Only soapstone, talc, or UL listed pulling compound will be permitted. The raceway construction shall be complete and protected from the weather before cable is pulled into it. Swab conduits before installing cables and exercise care in pulling, to avoid damage to conductors.
- F. Bending Radius - Cable bending radius shall be per applicable code. Install feeder cables in one continuous length.
- G. Equipment Grounding Conductors - Provide an equipment grounding conductor, whether or not it is shown on the Drawings, in all conduits or all raceways.
- H. Panelboard Wiring - In panels, bundle incoming wire and cables which are No. 6 AWG and smaller, lace at intervals not greater than 6 inches, neatly spread into trees and connect to their respective terminals. Allow sufficient slack in cables for alterations in terminal connections. Perform lacing with plastic cable ties or linen lacing twine. Where plastic panel wiring duct is provided for cable runs, lacing is not necessary when the cable is properly installed in the duct.

#### 3.02 Cable Terminations and Splices:

- A. Splices - UL Listed wirenuts.
- B. Terminations - Shall comply with the following:
  - 1. Make up and form cable and orient terminals to minimize cable strain and stress on device being terminated on.
  - 2. Burnish oxide from conductor prior to inserting in oxide breaking compound filled terminal.

#### 3.03 Circuit and Conductor Identification:

- A. Color Coding - Provide color coding for all circuit conductors. Insulation color shall be white for neutrals and green for grounding conductors. Conductor colors shall be as follows:

<u>VOLTAGE</u>	<u>208/120V</u>
Phase A	Black
Phase B	Red
Phase C	Blue
Neutral	White
Ground	Green

- B. Color coding shall be in the conductor insulation for all conductors #10 AWG and smaller; for larger conductors, color shall be either in the insulation or in colored plastic tape applied at every location where the conductor is readily accessible.
- C. Circuit Identification - All underground distribution and service circuits shall be provided with plastic identification tags in each secondary box and at each termination. Tags shall identify the source transformer of the circuit and the building number(s) serviced by the circuit.

3.04 Field Tests:

- A. All systems shall test free from short circuits and grounds, shall be free from mechanical and electrical defects, and shall show an insulation resistance between phase conductors and ground of not less than the requirements of the CEC. All circuits shall be tested for proper neutral connections.

END OF SECTION

## **SECTION 260526**

### **GROUNDING**

#### **PART 1 GENERAL**

##### **1.1 Section Includes:**

- A. Conduits, wires, ground bars and other materials for the electrical grounding system.

##### **1.2 Related Sections:**

- A. Section 260500- Electrical General Requirements.

#### **PART 2 PRODUCTS**

##### **2.1 Ground Rod:**

- A. "Copperweld" ground rod conforming to or exceeding requirements of U.L. Specification No. 467 (ANSI C-33.8). Rod shall be 3/4" diameter and 10' in length, unless otherwise noted on the Drawings.

##### **2.2 Below Grade Connections:**

- A. Compression fittings, Thomas & Betts, Series 52000, 53000 or 54000 or approved equal.

##### **2.3 Hardware:**

- A. Bolts, nuts and washers shall be bronze, cadmium plated steel or other non-corrosive materials, approved for the purpose.

##### **2.4 Waterproof Sealant:**

- A. Use Kearney "Aqua Seal" mastic sealant on all below grade clamp or compression type connections.

#### **PART 3 EXECUTION**

##### **3.1 If present at the building or structure, all grounding electrodes shall be bonded together to form the grounding electrode system.**

###### **A. Electrodes permitted for grounding**

1. Metal underground water pipe
2. Metal frame of the building or structure
3. Concrete – encased electrode (ufer ground)
4. Ground ring
5. Rod and pipe electrodes
6. Plate electrodes

##### **3.2 Grounding and Bonding:**

- A. Grounding and bonding shall be as required by codes and local authorities.

- B. All electrical equipment shall be grounded, including, but not limited to, panel boards, terminal cabinets and outlet boxes.
- C. The ground pole of receptacles shall be connected to their outlet boxes by means of a copper ground wire connecting to a screw in the back of the box.
- D. A green insulated copper ground wire, sized to comply with codes, shall be installed in all conduit runs.
- E. All metal parts of pull boxes shall be grounded per code requirements.
- F. All ground conductors shall be green insulated copper.
- G. The ground system electrodes shall be tested for resistance before the equipment ground conductors are connected. Maximum ground system resistance shall be 25 ohms. Install up to two additional ground rods to meet the 25 ohm requirement. Multiple ground rods shall not be less than 10 feet apart.
- H. Grounding of the panels and relocatable buildings shall be completed as indicated on the Drawings.

END OF SECTION

## **SECTION 260533**

### **OUTLET, JUNCTION AND PULL BOXES**

#### **PART 1 - GENERAL**

##### **1.01 Description of Work:**

- A. The work of this Section consists of providing all required labor, supervision, materials and equipment to satisfactorily complete all electrical installations shown on the drawings, included in these Specification, or otherwise needed for a complete and fully operating facility. The work shall include but not be limited to the following:
- B. Furnish and install all required material, supports and miscellaneous material for the satisfactory interconnection of all associated electrical systems.

##### **1.02 Related Work:**

- A. See the following specification sections for work related to the work of this section.
  - 1. 260500 General Electrical Requirements.
  - 2. 260542 Conduits, Raceway and Fittings.
  - 3. 260519 Line Voltage Wire and Cable.

#### **PART 2 - PRODUCTS**

##### **2.01 Outlet boxes, Junction and Pull boxes**

- A. Standard Outlet Boxes: Galvanized, steel, knock-out type of size and configuration best suited to the application indicated on the Drawings. Minimum box size shall be 4 inches square by 1-1/2 inches deep with mud rings as required. Boxes used with conduit 1" or larger, shall be minimum 2" deep.
- B. Switch boxes: Minimum box size shall be 4 inches square by 1-1/2 inches deep with mud rings as required. Install multiple switches in standard gang boxes with raised device covers suitable for the application indicated.
- C. Conduit bodies: Cadmium plated, cast iron alloy. Conduit bodies with threaded conduit hubs and neoprene gasketed, cast iron covers. Bodies shall be used to facilitate pulling of controls or to make changes in conduit direction only. Splices are not permitted in conduit bodies. Crouse-Hinds Form 8 Condulets, Appleton Form 35 Unilets or equal.
- D. Sheet Metal Boxes: Use standard outlet or concrete ring boxes wherever possible; otherwise use a minimum 16 gauge galvanized sheet metal, NEMA I box sized to Code requirements with covers secured by cadmium plated machine screws located six inches on centers. Circle AW Products, Hoffman Engineering Company or equal.
- E. Flush Mounted Pull boxes and Junction boxes: Provide overlapping covers with flush head cover retaining screws, prime coated.

#### **PART 3 - EXECUTION**

### 3.01 Outlet Boxes

#### A. General:

1. All outlet boxes shall finish flush with building walls, ceilings and floors except in mechanical and electrical rooms above accessible ceiling or where exposed work is called for on the Drawings.
2. Install raised device covers (plaster rings) on all switch and receptacle outlet boxes installed in masonry or stud walls or in furred, suspended or exposed concrete ceilings. Covers shall be of a depth to suit the wall or ceiling finish.
3. Leave no unused openings in any box. Install close-up plugs as required to seal openings.

#### B. Box Layout:

1. Outlet boxes shall be installed at the locations and elevations shown on the drawings or specified herein. Make adjustments to locations as required by structural conditions and to suit coordination requirements of other trades.
2. Locate switch outlet boxes on the latch side of doorways.
3. Outlet boxes shall not be installed back to back nor shall through-wall boxes be permitted.
4. For outlets mounted above counters, benches or backsplashes, coordinate location and mounting heights with built-in units. Adjust mounting height to agree with required location for equipment served.
5. On fire rated walls, the total area of the outlet boxes shall not exceed 100 square inches per 100 square feet of wall area.

#### C. Supports:

1. Outlet Boxes installed in metal stud walls shall be equipped with brackets designed for attaching directly to the studs or shall be mounted on specified box supports.
2. Fixture outlet boxes installed in suspended ceiling of gypsum board or lath and plaster construction shall be mounted to 16 gauge metal channel bars attached to main ceiling runners.
3. Fixture outlet boxes installed in suspended ceilings supporting acoustical tiles or panels shall be supported directly from the structure above where pendant mounted lighting fixture are to be installed on the box.
4. Fixture Boxes above tile ceilings having exposed suspension systems shall be supported directly from the structure above.
5. Outlet and / or junction boxes shall not be supported by grid or fixture hanger wires at any locations.

### 3.02 JUNCTION AND PULL BOXES

#### A. General:

1. Install junction or pull boxes where required to limit bends in conduit runs to not more than 360 degrees or where pulling tension achieved would exceed the maximum allowable for the cable to be installed. Note that these boxes are not shown on the Drawings.
2. Locate pull boxes and junction boxes in concealed locations above accessible ceilings or exposed in electrical rooms, utility rooms or storage areas.
3. Install raised covers (plaster rings) on boxes in stud walls or in furred, suspended or exposed concrete ceilings. Covers shall be of a depth to suit the wall or ceiling finish.
4. Leave no unused openings in any box. Install close-up plugs as required to seal openings.
5. Identify circuit numbers and panel on cover of junction box with black marker pen.

B. Box Layouts:

1. Boxes above hung ceilings having concealed suspension systems shall be located adjacent to openings for removable recessed lighting fixtures.

C. Supports:

1. Boxes installed in metal stud walls shall be equipped with brackets designed for attaching directly to the studs or shall be mounted on specified box supports.
2. Boxes installed in suspended ceilings of gypsum board or lath and plaster construction shall be mounted to 16 gauge metal channel bars attached to main ceiling runners.
3. Boxes installed in suspended ceilings supporting acoustical tiles or panels shall be supported directly from the structure above.
4. Boxes mounted above suspended acoustical tile ceilings having exposed suspension systems shall be supported directly from the structure above.

END OF SECTION



## **SECTION 260542**

### **CONDUITS, RACEWAYS AND FITTINGS**

#### **PART 1 - GENERAL**

##### **1.01 Description of Work:**

- A. The work of this section consists of furnishing and installing conduits, raceways and fittings as shown on the Drawings and as described herein.

##### **1.02 Related Work:**

- A. See the following specification sections for work related to the work in this section:

- 1. 260543 Underground Ducts.
- 2. 260544 In Grade Pull Boxes
- 3. 260519 Line Voltage Wire and Cable.
- 4. 260533 Junction and Pull Boxes

##### **1.03 Submittals:**

- A. Submit as specified in Section 16000 and Division 1.
  - 1. Catalog Data: Provide manufacturer's descriptive literature.
  - 2. Single Submittal: A single complete submittal is required for all products covered by this Section.

#### **PART 2 - PRODUCTS**

##### **2.01 Conduits, Raceways:**

- A. Electrical Metallic Tubing (EMT) shall be hot-dip galvanized after fabrication. Couplings shall be compression or set-screw type.
- B. Flexible Conduit: Flexible metal conduit shall be galvanized steel.
- C. Galvanized Rigid Steel Conduit (GRS) shall be hot-dip galvanized after fabrication. Couplings shall be threaded type.
- D. Rigid Non-metallic Conduit: Rigid non-metallic conduit shall be PVC Schedule 40 (PVC-40 or NEMA Type EPC-40) conduit approved for underground use and for use with 90°C wires.

##### **2.02 Conduit Supports:**

- A. Supports for individual conduits shall be galvanized malleable iron one-hole type with conduit back spacer.
- B. Supports for multiple conduits shall be hot-dipped galvanized Unistrut or Superstrut channels, or approved equal. All associated hardware shall be hot-dip galvanized.
- C. Supports for EMT conduits shall be galvanized pressed steel single hole straps.

- D. Clamp fasteners shall be by wedge anchors. Shot in anchors shall not be allowed.

## 2.03 Fittings:

- A. Provide threaded-type couplings and connectors for rigid steel conduits; provide compression (watertight) steel type (die-cast zinc or malleable iron type fittings not allowed), or set-screw type for EMT. Provide threaded couplings and Meyers hubs for rigid steel conduit exposed to weather.
- B. Fittings for flexible conduit shall be Appleton, Chicago, IL, Type ST, O-Z Gedney Series 4Q by General Signal Corp., Terryville, CT, T & B 5300 series, or approved equal.
- C. Fittings for use with rigid steel shall be galvanized steel or galvanized cast ferrous metal; access fittings shall have gasketed cast covers and be Crouse Hinds Condulets, Syracuse, NY, Appleton Unilets, Chicago, IL, or approved equal. Provide threaded-type couplings and connectors; set-screw type and compression-type are not acceptable.
- D. Fittings for use with rigid non-metallic conduit shall be PVC and have solvent-weld-type conduit connections.
- E. Union couplings for conduits shall be the Erickson type and shall be Appleton, Chicago, IL, Type EC, O-Z Gedney 3-piece Series 4 by General Signal Corp., Terryville, CT, or approved equal. Threadless coupling shall not be used.
- F. Bushings:
  - 1. Bushings shall be the insulated type.
  - 2. Bushings for rigid steel shall be insulated grounding type, O-Z Gedney Type HBLG, Appleton Type GIB, or approved equal.
- G. Conduit Sealants:
  - 1. Fire Retardant Types: Fire stop material shall be reusable, non-toxic, asbestos-free, expanding, putty type material with a 3-hour rating in accordance with UL Classification 35L4 or as specified on the Drawings.

## PART 3 - EXECUTION

### 3.01 Conduit, Raceway and Fitting Installation:

- A. Provide rigid metal (GRS) for conduit runs exposed to weather and for interior exposed runs when installed less than 6 feet above floor.
- B. For underground and under concrete slabs, use schedule 40 rigid nonmetallic (pvc) conduit for non-emergency system wiring. For underground and under concrete slabs, use schedule 80 rigid nonmetallic (pvc) conduit for emergency system wiring. PVC conduit is not permitted for branch circuits serving patient care areas. Install (pvc) coupling and wrapped galvanized rigid steel elbows on pvc conduit runs.
- C. For conduit runs concealed in steel or wood framed walls or in ceiling spaces or exposed in interior spaces above six feet over the finished floor, install EMT.
- D. Use flexible galvanized steel conduit for connection of recessed light fixtures, transformers, motors and other vibrating machinery. Provide "Sealtite" or equal for motors and where exposed to weather. Flexible metal conduit is permitted for use in patient care areas with all of the following conditions:

1. Installed with a green insulated copper ground conductor required by CEC 517-13.
  2. The total length in any ground return path is less than six feet.
  3. The conduit is terminated in fittings approved for grounding.
  4. The circuit overcurrent protective device is 20A or less.
- E. The minimum size raceway shall be 3/4 inch for underground and under slab runs and 1/2 inch in all other areas unless indicated otherwise on the Drawings.
- F. Installation shall comply with the CEC.
- G. From pull point to pull point, the sum of the angles of all of the bends and offset shall not exceed 360 degrees.
- H. Conduit Supports: Properly support all conduits as required by the NEC. Run all conduits concealed except where otherwise shown on the drawings.
1. Exposed Conduits: Support exposed conduits within three feet of any equipment or device and at intervals not exceeding NEC requirements; wherever possible, group conduits together and support on common supports. Support exposed conduits fastened to the surface of the concrete structure by one-hole clamps, or with channels. Use conduit spacers with one-hole clamps.
    - a. Conduits attached to walls or columns shall be as unobtrusive as possible and shall avoid windows. Run all exposed conduits parallel or at right angles to building lines.
    - b. Group exposed conduits together. Arrange such conduits uniformly and neatly.
  2. Support all conduits within three feet of any junction box, coupling, bend or fixture.
  3. Support conduit risers in shafts with Unistrut Superstrut, or approved equal, channels and straps.
- I. Moisture Seals: Provide in accordance with NEC paragraphs 230-8 and 300-5(g).
- J. Where PVC conduit transitions from underground to above grade, provide rigid steel 90's with risers. Rigid steel shall be half-lap wrapped with 20 mil tape and extend minimum 12" above grade.
- K. Provide a nylon pull cord in each empty raceway.
- L. Provide galvanized rigid steel factory fittings for galvanized rigid steel conduit.
- M. Slope all underground raceways to provide drainage; for example, slope conduit from equipment located inside a building to the pull box or manhole located outside the building.
- N. Conduits shall be blown out and swabbed prior to pulling wires.

END OF SECTION

**SECTION 260543**

**UNDERGROUND DUCTS**

**PART 1 - GENERAL**

**1.01 Description of Work:**

- A. The work of this section consists of furnishing and installing raceways, raceway spacers with necessary excavation.

**1.02 Related Work:**

- A. See the following specification sections for work related to the work of this section.
  - 1. 02200 Excavation and Backfill
  - 2. 260542 Conduit Raceway and Fittings

**1.03 Standards and Codes:**

- A. Work and material shall be in compliance with and according to the requirements of the latest revision of the following standards and codes.
  - 1. National Electrical Code (NEC) (Latest Revision)
  - 2. California Electrical Code (CEC).
  - 3. Underground Installations CEC - Article 300.5
  - 4. Rigid NonMetallic Conduit CEC - Article 347

**PART 2 - PRODUCTS**

**2.01 Raceways:**

- A. As specified in Section 260542 Conduits, Raceways and Fittings.

**PART 3 - EXECUTION**

**3.01 Excavation:**

- A. As specified in Section 02200, Excavation and Backfill and as required for the work shown on the Drawings.

**3.02 Install raceways as indicated on drawings.**

**3.03 Sand Encasement:**

- A. As specified in Section 02200 - Excavation and Backfill.

**3.04 Backfill:**

- A. As specified in Section 02200 - Excavation and Backfill.

**END OF SECTION**

**SECTION 26 05 44**

**IN GRADE PULL BOXES**

**PART 1 - GENERAL**

**1.01 Description of Work:**

- A. The work of this section consists of providing all labor, supervision, tools, materials, and performing all work necessary to furnish and install pre-cast concrete vaults, and pull boxes with necessary excavation.

**1.02 Related Work:**

- A. See the following specification sections for work related to the work of this section.
  - 1. 02200 Excavation and Backfill.
  - 2. 260543 Underground Ducts.

**1.03 Submittals:**

- A. As specified in Section 260500 and Division 01.
  - 1. Catalog Data: Provide manufacturer's descriptive literature - Pre-cast Vaults, Pull Boxes and Accessories.

**PART 2 - PRODUCTS**

**2.01 Materials and Equipment:**

**A. General Requirements:**

- 1. Pull boxes for electrical power, controls and other communication circuits shall consist of pre-cast reinforced concrete boxes, extensions' bases, and covers as specified herein and as indicated on the Drawings. Pre-cast units shall be the product of a manufacturer regularly engaged in the manufacture of pre-cast vaults and pull boxes. Acceptable manufacturers are Christy, Utility Vault, Brooks, Associated Concrete or equal.

**B. Construction:**

- 1. Pre-cast concrete vaults and pull boxes for electrical power distribution and communication circuits with associated risers and tops shall conform to ASTM C478 and ACI 318. Pull boxes shall be the type noted on the Drawings and shall be constructed in accordance with the applicable details as shown. Tops and walls shall consist of reinforced concrete. Walls and bottom shall be of monolithic concrete construction. Duct entrances and windows shall be located near the corners of structures to facilitate cable racking.

**C. Covers:**

- 1. The word "ELECTRICAL" shall be cast in the top face of all electrical cable boxes. The word "Signal" or "Fire Alarm" shall be cast in the top of the boxes utilized for these systems.

### PART 3 - EXECUTION

#### 3.01 Installation:

- A. Install pull boxes where required to limit bends in conduit runs to not more than 360 degrees or where pulling tension achieved would exceed the maximum allowable for the cable to be installed. Note that these boxes are not shown on the Drawings.
- B. Pre-cast pull boxes shall be installed approximately where indicated on the Drawings. The exact location of each pull box shall be determined after careful consideration has been given to the location of other utilities, grading, and paving. All cable boxes and secondary pull boxes shall be installed with a minimum of 6-inch thick crushed rock or sand bedding.
- C. Paved areas - Vaults and pull boxes located in areas to be paved shall be installed such that the top of the cover shall be flush with the finished surface of the paving.
- D. Unpaved Areas - In unpaved areas, the top of vaults and pull box covers shall be approximately 2 inches above finished grade.
- E. Joint Seals - Section joints of pre-cast vaults and pull boxes shall be sealed with compound as recommended by the manufacturer.
- F. Trenching, Backfilling, and Compaction - Trenching, backfilling and compaction shall be as specified in Section 02200 - Excavation and Backfill.

END OF SECTION

**SECTION 26 28 16**  
**CIRCUIT BREAKERS**

**PART 1 - GENERAL**

**1.1 Description of Work:**

- A. The work of this Section consists of providing circuit breakers as shown on the Drawings and as described herein.

**1.2 Related Work:** See the following Specification Sections for work related to the work in this Section.

- A. 26 05 00      General Electrical Requirements
- B. 26 24 13      Switchboards
- C. 26 24 16      Panelboards and Distribution Panels

**1.3 Submittals:**

- A. Shop Drawings - Submittals shall be in accordance with Section 260500 and Division 01. For each circuit breaker furnished under this Contract, submit manufacturer's name, catalog data, and the following information:
  - 1. Terminal connection sizes.
  - 2. Voltage rating.
  - 3. Breaker manufacturer, types, trip ratings and interrupting ratings.
- B. Single Submittal - A single complete submittal is required for all products covered by this Section.
- C. Closeout Submittals: Submit in accordance with and Section 260500, operation and maintenance data for circuit breakers including nameplate data, parts lists, manufacturer's circuit breaker timer, current, coordination curves, factory and field test reports and recommended maintenance procedures.

**PART 2 - PRODUCTS**

**2.1 Circuit Breaker:** Each circuit breaker shall consist of the following:

- A. A molded case breaker with an over center toggle-type mechanism, providing quick-make, quick-break action. Each circuit breaker shall have a permanent trip unit containing individual thermal and magnetic trip elements in each pole. Multipole circuit breakers shall have variable magnetic trip elements which are set by a single adjustment to assure uniform tripping characteristics in each pole. Circuit breakers shall be of the bolt-on type unless otherwise noted.
- B. Breaker shall be calibrated for operation in an ambient temperature of 40°C.
- C. Each circuit breaker shall have trip indication by handle position and shall be trip-free.
- D. Three pole breakers shall be common trip.

- E. The circuit breakers shall be constructed to accommodate the supply connection at either end of the circuit breaker. Circuit breaker shall be suitable for mounting and operation in any position.
- F. Breakers shall be rated as shown on Drawings.
- G. Circuit breaker and/or Fuse/circuit breaker combinations for series connected interrupting ratings shall be listed by UL as recognized component combinations for use in the end use equipment in which it is installed. Any series rated combination used shall be marked on the end use equipment per CEC section 110-22.
- H. Breakers shall be UL listed. Circuit breakers shall have removable lugs.
- I. Lugs shall be UL listed for copper and aluminum conductors.
- J. Breakers shall be UL listed for installation of mechanical screw type lugs.
- K. Circuit breakers serving HACR rated loads shall be HACR type. Circuit breakers serving other motor loads shall be motor rated.

### PART 3 - EXECUTION

#### 3.1 Mounting:

- A. The highest breaker operating handle shall not be higher than 72 inches above the floor.

END OF SECTION



SECTION 31 00 00  
EARTHWORK

## PART 1 GENERAL

## 1.1 RELATED DOCUMENTS

- A. Not used

## 1.2 SUMMARY

- . This Section includes the following:
1. Preparing and grading sub-grades for slabs-on-grade, walks and pavements.
  2. Excavating and backfilling for buildings and structures.
  3. Drainage and moisture-control fill course for slabs-on-grade.
  4. Base course for walks and pavements.
  5. Subsurface drainage backfill for trenches.
  6. Excavating and backfilling for underground mechanical and electrical utilities and appurtenances.
- A. Related Sections: the following Sections, when included, contain requirements that relate to this Section.
1. Division 31 Section "Site Clearing" for site stripping, grubbing, topsoil removal, and tree protection.

## 1.3 DEFINITIONS

- A. Excavation consists of the removal of material encountered to sub-grade elevations and the reuse or disposal of materials removed.
- B. Sub-grade: The uppermost surface of an excavation or the top surface of a fill or backfill immediately below base, drainage fill, or topsoil materials.
- C. Borrow: Soil material obtained off-site when sufficient approved soil material is not available from excavations.
- D. Sub-base Course: The layer placed between the sub-grade and base course in a paving system or the layer placed between the sub-grade and surface of a pavement or walk.
- E. Base Course: The layer placed between the sub-base and surface pavement in a paving system.
- F. Drainage Fill: Course of washed granular material supporting slab-on-grade placed to cut off upward capillary flow of pore water.
- G. Unauthorized excavation consists of removing materials beyond indicated sub-grade elevations or dimensions without direction by the Architect. Unauthorized excavation, as well as remedial work directed by the Architect, shall be at the Contractor's expense.
- H. Structures: Buildings, footings, foundations, retaining walls, slabs, tanks, curbs, mechanical and electrical appurtenances, or other man-made stationary features constructed above or below ground surface.
- I. Utilities include on-site underground pipes, conduits, ducts, and cables, as well as underground services within building lines.

## 1.4 SUBMITTALS

- A. General: Submit the following according to the Conditions of the Contract and Division 1 Specification Sections.
- B. Test Reports: In addition to test reports required under field quality control, submit the following:
1. Laboratory analysis of each soil material proposed for fill and backfill from on-site and borrow sources.
  2. One optimum moisture-maximum density curve for each soil material.
  3. Report of actual unconfined compressive strength and/or results of bearing tests of each stratum tested.
- C. Photographs of existing adjacent structures and site improvements.

## 1.5 QUALITY ASSURANCE

- A. Codes and Standards: Perform earthwork complying with requirements of authorities having jurisdiction.
- B. Testing and Inspection Service: Owner will employ a qualified independent geotechnical engineering testing agency to classify proposed on-site and borrow soils to verify that soils comply with specified requirements and to perform required field and laboratory testing.
- C. Pre-installation Conference: Conduct conference at Project site to comply with requirements of Division 1 Section "Project Meetings."
  - 1. Before commencing earthwork, meet with representatives of the governing authorities, Owner, Architect, consultants, and other concerned entities. Review earthwork procedures and responsibilities including testing and inspection procedures and requirements. Notify participants at least 3 working days prior to convening conference. Record discussions and agreements and furnish a copy to each participant.

## 1.6 PROJECT CONDITIONS

- A. Existing Utilities: Do not interrupt existing utilities serving facilities occupied by the Owner or others except when permitted in writing by the Architect and then only after acceptable temporary utility services have been provided.
  - 1. Provide a minimum 48-hours notice to the Architect and receive written notice to proceed before interrupting any utility.
- B. Demolish and completely remove from site existing underground utilities indicated to be removed. Coordinate with utility companies to shutoff services if lines are active.

## PART 2 - PRODUCTS

## 2.1 SOIL MATERIALS

- A. General: Provide approved borrow soil materials from off-site when sufficient approved soil materials are not available from excavations. Soils used from on-site excavations shall adhere to the requirements of the project Soils Report. If no soils report is provided, the borrowed soil shall have the same general characteristics equal to or better than the native soil. A sample of each material proposed for import fill should be delivered to the Geotechnical Engineer or his representative for testing and approval at least three working days prior to being transported to the site.
- C. Backfill and Fill Materials: Satisfactory soil materials as outlined above.
- D. Base Material: Shall conform to Caltrans Class II aggregate base material, 3/4" maximum gradation, min R-value of 78. [Recycled material is acceptable only under site concrete or AC paving and approved by Soils Engineer or Architect. Base rock under buildings shall be clean non-recycled material.](#)
- E. Engineered Fill: Shall adhere to the requirements of the project soils report as outlined above.
- F. Bedding Material: Base materials with 100 percent passing a 1-inch sieve and not more than 8 percent passing a No. 200 sieve or as indicated in the soils report.
- G. Drainage Fill: Washed, evenly graded mixture of crushed stone, or crushed or uncrushed gravel, ASTM D 448, coarse aggregate grading size 57, with 100 percent passing a 1-1/2-inch sieve and not more than 5 percent passing a No. 8 sieve or as indicated in the soils report.
- H. Filtering Material: Evenly graded mixture of natural or crushed gravel or crushed stone and natural sand, with 100 percent passing a 1-1/2-inch sieve and 0 to 5 percent passing a No. 50 sieve or as indicated in the soils report.
- I. Impervious Fill: Clayey gravel and sand mixture capable of compacting to a dense state.

## PART 3 - EXECUTION

## 3.1 PREPARATION

- A. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earthwork operations.
- B. Provide erosion control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways, or drainage facilities.
- C. Tree protection as specified in other areas of these specifications.

## 3.2 DEWATERING

- A. Prevent surface water and subsurface or ground water from entering excavations, from ponding on prepared sub-grades, and from flooding Project site and surrounding area.
- B. Protect sub-grades and foundation soils from softening and damage by rain or water accumulation.

## 3.3 EXCAVATION

- A. Explosives: Do not use explosives.
- B. Unclassified Excavation: Excavation is Unclassified and includes excavation to required sub-grade elevations regardless of the character of materials and obstructions encountered.

## 3.4 STABILITY OF EXCAVATIONS

- A. Comply with local codes, ordinances, and requirements of authorities having jurisdiction to maintain stable excavations.

## 3.5 EXCAVATION FOR STRUCTURES

- A. Excavate to indicated elevations and dimensions within a tolerance of plus or minus 0.10 foot. Extend excavations a sufficient distance from structures for placing and removing concrete formwork, installing services and other construction, and for inspections but no less than 5'-0".
  - 1. Excavations for Footings and Foundations: Do not disturb bottom of excavation. Excavate by hand to final grade just before placing concrete reinforcement. Trim bottoms to required lines and grades to leave solid base to receive other work.

## 3.6 EXCAVATION FOR WALKS AND PAVEMENTS

- A. Excavate surfaces under walks and pavements to indicated cross sections, elevations, and grades.

## 3.7 EXCAVATION FOR UTILITY TRENCHES

- A. Excavate trenches to indicated slopes, lines, depths, and invert elevations.
- B. Excavate trenches to uniform widths to provide a working clearance on each side of pipe or conduit. Excavate trench walls vertically from trench bottom to 12 inches higher than top of pipe or conduit, unless otherwise indicated.
  - 1. Clearance: 6 inches each side of pipe or conduit unless otherwise noted.
- C. Trench Bottoms: Excavate and shape trench bottoms to provide uniform bearing and support of pipes and conduit. Shape sub-grade to provide continuous support for bells, joints, and barrels of pipes and for joints, fittings, and bodies of conduits. Remove stones and sharp objects to avoid point loading.
  - 1. For pipes or conduit less than 6 inches in nominal diameter, hand-excavate trench bottoms and support pipe and conduit on an undisturbed sub-grade.
  - 2. For pipes and conduit 6 inches or larger in nominal diameter, shape bottom of trench to support bottom 90 degrees of pipe circumference. Fill depressions with tamped sand backfill.

3. Where encountering rock or another unyielding bearing surface, carry trench excavation 6 inches below invert elevation to receive bedding course.

### 3.8 APPROVAL OF SUBGRADE

- A. Notify Architect when excavations have reached required sub-grade.
- B. When Architect determines that unforeseen unsatisfactory soil is present, continue excavation and replace with compacted backfill or fill material as directed.
  1. Unforeseen additional excavation and replacement material will be paid according to the Contract provisions for changes in Work.
- C. Reconstruct sub-grades damaged by rain, accumulated water, or construction activities, as directed by the Architect. Grades damaged by rains, water, etc. after start of work are the responsibility of the contractor and shall be repaired at no cost to the owner.

### 3.9 UNAUTHORIZED EXCAVATION

- A. Fill unauthorized excavation under foundations or wall footings by extending indicated bottom elevation of concrete foundation or footing to excavation bottom, without altering required top elevation. Lean concrete fill may be used to bring elevations to proper position when acceptable to the Architect.
  1. Fill unauthorized excavations under other construction as directed by the Architect.
- B. Where indicated widths of utility trenches are exceeded, provide stronger pipe, or special installation procedures, as required by the Architect.

### 3.10 STORAGE OF SOIL MATERIALS

- A. Stockpile excavated materials acceptable for backfill and fill soil materials, including acceptable borrow materials. Stockpile soil materials without intermixing. Place, grade, and shape stockpiles to drain surface water. Cover to prevent wind-blown dust.
  1. Stockpile soil materials away from edge of excavations. Do not store within drip line of remaining trees.

### 3.11 BACKFILL

- A. Backfill excavations promptly, but not before completing the following:
  1. Acceptance of construction below finish grade including, where applicable, dampproofing, waterproofing, and perimeter insulation.
  2. Surveying locations of underground utilities for record documents.
  3. Testing, inspecting, and approval of underground utilities.
  4. Concrete formwork removal.
  5. Removal of trash and debris from excavation.
  6. Removal of temporary shoring and bracing, and sheeting.
  7. Installing permanent or temporary horizontal bracing on horizontally supported walls.

### 3.12 UTILITY TRENCH BACKFILL

- A. Place and compact bedding course on rock and other unyielding bearing surfaces and to fill unauthorized excavations. Shape bedding course to provide continuous support for bells, joints, and barrels of pipes and for joints, fittings, and bodies of conduits.
- B. Concrete backfill trenches that carry below or pass under footings and that are excavated within 18 inches of footings unless noted otherwise. Place concrete to level of bottom of footings.
- C. Place and compact initial backfill of satisfactory soil material free of particles larger than 1 inch, to a height of 12 inches over the utility pipe or conduit unless noted otherwise.
  1. Carefully compact material under pipe haunches and bring backfill evenly up on both sides and along the full length of utility piping or conduit to avoid damage or displacement of utility system.
- D. Coordinate backfilling with utilities testing.

- E. Fill voids with approved backfill materials as shoring and bracing, and sheeting is removed.
- F. Place and compact final backfill of satisfactory soil material to final sub-grade.

### 3.13 FILL

- A. Preparation: Remove vegetation, topsoil, debris, wet, and unsatisfactory soil materials, obstructions, and deleterious materials from ground surface prior to placing fills.
  - 1. Plow strip, or break up sloped surfaces steeper than 1 vertical to 4 horizontal so fill material will bond with existing surface.
- B. When sub-grade or existing ground surface to receive fill has a density less than that required for fill, break up ground surface to depth required, pulverize, moisture-condition or aerate soil and re-compact to required density.
- C. Place fill material in layers to required elevations for each location listed below.
  - 1. Under grass, use satisfactory excavated or borrow soil material.
  - 2. Under walks and pavements, use base material, or satisfactory excavated or borrow soil material.
  - 3. Under steps and ramps, use base material.
  - 4. Under building slabs, use drainage fill material.
  - 5. Under footings and foundations, use engineered fill.

### 3.14 MOISTURE CONTROL

- A. Uniformly moisten or aerate sub-grade and each subsequent fill or backfill layer before compaction to within 2 percent of optimum moisture content.
  - 1. Do not place backfill or fill material on surfaces that are muddy.
  - 2. Remove and replace, or scarify and air-dry satisfactory soil material that is too wet to compact to specified density.
    - a. Stockpile or spread and dry removed wet satisfactory soil material

### 3.15 COMPACTION

- A. Place backfill and fill materials in layers not more than 8 inches in loose depth for material compacted by heavy compaction equipment, and not more than 4 inches in loose depth for material compacted by hand-operated tampers.
- B. Place backfill and fill materials evenly on all sides of structures to required elevations. Place backfill and fill uniformly along the full length of each structure.
- C. Percentage of Maximum Dry Density Requirements: Compact soil to the requirements outlined in the project soils report or as shown on drawings.

### 3.16 GRADING

- A. General: Uniformly grade areas to a smooth surface, free from irregular surface changes. Comply with compaction requirements and grade to cross sections, lines, and elevations indicated.
  - 1. Provide a smooth transition between existing adjacent grades and new grades.
  - 2. Cut out soft spots, fill low spots, and trim high spots to conform to required surface tolerances.
- B. Site Grading: Slope grades to direct water away from buildings and to prevent ponding. Finish sub-grades to required elevations within the following tolerances:
  - 1. Lawn or Unpaved Areas: Plus or minus 0.10 foot.
  - 2. Walks: Plus or minus 1/2 inch.
  - 3. Pavements: Plus or minus 1/2 inch.
- C. Grading Inside Building Lines: Finish sub-grade to a tolerance of 1/2 inch when tested with a 10-foot straightedge.

### 3.17 BASE COURSES

- A. Under pavements and walks, place base course material on prepared sub-grades.
  - 1. Compact base courses at optimum moisture content to required grades, lines, cross sections and thickness as required by the plans and the project soils

report.

2. Shape base to required crown elevations and cross-slope grades.
3. When thickness of compacted base course is 6 inches or less, place materials in a single layer.

### 3.18 DRAINAGE FILL

- A. Under slabs-on-grade, place drainage fill course on prepared sub-grade.
  1. Compact drainage fill to required cross sections and thickness.
  2. When compacted thickness of drainage fill is 6 inches or less, place materials in a single layer.

### 3.19 FIELD QUALITY CONTROL

- A. Testing Agency Services: Allow testing agency to inspect and test each subgrade and each fill or backfill layer. Do not proceed until test results for previously completed work verify compliance with requirements.
  1. Perform field in-place density tests according to ASTM D.
  2. Footing Sub-grade: At footing sub-grades, perform at least one test of each soil stratum to verify design bearing capacities. Subsequent verification and approval of other footing sub-grades may be based on a visual comparison of each sub-grade with related tested strata when acceptable to the Architect.
  3. Paved and Building Slab Areas: At sub-grade and at each compacted fill and backfill layer, perform at least one field in-place density test for every 2,000 sq. ft. or less of paved area or building slab, but in no case fewer than three tests.
  4. Foundation Wall Backfill: In each compacted backfill layer, perform at least one field in-place density test for each 100 feet or less of wall length, but no fewer than two tests along a wall face.
  5. Trench Backfill: In each compacted initial and final backfill layer, perform at least one field in-place density test for each 150 feet or less of trench, but no fewer than two tests.
- B. When testing agency reports that sub-grades, fills, or backfills are below specified density, scarify and moisten or aerate, or remove and replace soil to the depth required, re-compact and retest until required density is obtained.

### 3.20 PROTECTION

- A. Protecting Graded Areas: Protect newly graded areas from traffic and erosion. Keep free of trash and debris.
- B. Repair and re-establish grades to specified tolerances where completed or partially completed surfaces become eroded, rutted, settled, or lose compaction due to subsequent construction operations or weather conditions.
  1. Scarify or remove and replace material to depth directed by the Architect; reshape and re-compact at optimum moisture content to the required density.
- C. Settling: Where settling occurs during the Project correction period, remove finished surfacing, backfill with additional approved material, compact, and reconstruct surfacing.
  1. Restore appearance, quality, and condition of finished surfacing to match adjacent work, and eliminate evidence of restoration to the greatest extent possible at no cost to the owner.

### 3.21 DISPOSAL OF SURPLUS AND WASTE MATERIALS

- A. Disposal: Remove surplus satisfactory soil and waste material, including unsatisfactory soil, trash, and debris, and legally dispose of it off the Owner's property.

END OF SECTION

SECTION 32 10 00  
SITE CLEARING

## PART 1 GENERAL

## 1.1 SECTION INCLUDES

- A. Remove surface debris.
- B. Remove paving, curbs, sidewalks and exterior concrete pads.
- C. Clear site of plant life and grass.
- D. Remove trees and shrubs.
- E. Remove root system of trees and shrubs.
- F. Removing fences and site structures.
- G. Backfilling ruts and depressions resulting from clearing and grubbing operations.
- I. [Removing Existing Irrigation Equipment or Repair of Damaged Equipment](#)

## 1.2 RELATED SECTIONS

- A. Earthwork.
- B. Site Storm Sewer System – Adjust Rims to new grades – When provided

## 1.3 QUALITY ASSURANCE

- A. Backfilling operations shall be done in accordance with the Contract Documents and the Site Project Soils Report (if available) under supervision of the project inspector and the project soils engineer (if soils report is provided).
  - 1. Keep a copy of the Soils Report in field office for duration of project if provided
  - 2. Should recommendations of the Soils Report (if available) conflict with the Contract Documents, include the most restrictive or more expensive requirement in the bid and request clarification from the Architect as to which to provide.
  - 3. Request clarification from the Architect prior to proceeding.
- B. Notify Architect and Project Inspector before backfilling or compacting is to be done so that the Owner's testing Engineer may be present during these operations. Arrange the Work so that the number and length of visits by the testing Engineer are kept to a minimum.
- C. Do not implement requirements of Owner's Soils Engineer which modify the contract requirements without written authorization from Architect.

## 1.4 REGULATORY REQUIREMENTS

- A. Conform to applicable codes for disposal of debris and use of herbicides.
- B. Coordinate clearing Work with Owner and utility companies.

## 1.5 PREGRADING CONFERENCE

- A. Convene a pregrading conference one week prior to commencing site clearing operations under provisions in Section 1 of the specifications.
- B. Attendance: Contractor, appropriate separate Prime Contractors, appropriate subcontractors, Project Inspector, key Owner personnel and Architect.
- C. Review coordination required with other work of Section 2 of the specifications and the Soils Report.

## PART 2 PRODUCTS

## 2.01 MATERIALS

- A. Backfill Material: As specified in other sections of this manual and identified in the Soils Report if available.

## PART 3 EXECUTION

### 3.1 PREPARATION

- A. Survey existing conditions and correlate with drawings, specifications, and the soils report to determine the existing demolition required. Bring discrepancies to the attention of the Owner's representative and the Architect prior to commencement of work.
- B. Verify that existing plant life designated to remain is tagged or identified.
- C. Notify Owner two weeks prior to removing existing trees, shrubs, ground cover and turf.
- D. Do not close or obstruct roadways, sidewalks, access to occupied facilities, or hydrants, without permission from Owner.

### 3.2 PROTECTION

- A. Locate, identify, and protect above grade AND underground utilities that remain from damage. Provide adequate support and protection during Work for those utilities to remain in place.
  - 1. Should uncharted or incorrectly charted piping or utilities be encountered during the work, consult with Owner's representative immediately for direction. Cooperate with Owner in keeping existing services and facilities in operation. Repair any damage to utilities immediately at no cost to the owner. Maintain horizontal and vertical dimensions from fixed points for future referencing and transfer these utilities onto the "As-Built" documents.
- B. Protect trees, plant growth, and features designated to remain, as final landscaping as outlined in other specification sections but at a minimum provide the following:
  - 1. Prior to demolition, clearing and grubbing work, erect barriers around "dripline" of trees designated to remain.
  - 2. Minimum Barrier Allowable: Steel T-posts at 6 feet on center with two strands of 2 inch fiberglass tape at top and midpoint.
  - 3. Do not permit vehicles, equipment, or material storage within "dripline" of trees.
  - 4. Do not regrade under "dripline" of trees except as authorized by an arborist acceptable to the Architect.
- C. Provide, erect, and maintain temporary barriers and security devices as required to protect the work AND at locations indicated.
- D. Do not interrupt existing utilities serving occupied facilities during occupied hours except when permitted in writing by the Owner's representative and then only after acceptable temporary utility services have been provided.
- E. Protect existing improvements.
  - 1. Contractor is responsible to provide protection necessary to prevent damage to existing improvements indicated to remain in place.
  - 2. Contractor is responsible to provide protection necessary to prevent damage to all work that has been completed and to protect monuments, paving, curbs, and walkways which are to remain.
  - 3. When contractor will impact existing areas (curbs, turf, walkways, etc.) that are not in pristine condition, contractor shall photograph and record existing condition of such areas prior to beginning work to document the less than pristine condition. Contractor is required to restore existing areas to the documented existing condition unless noted otherwise in the contract. Where no documentation exists and contractor failed to document the condition,



contractor shall return impacted areas to pristine condition, including replacement of curbs, turf, walkways, etc.) at no cost to the owner.

- F. Protect bench marks from damage or displacement

### 3.3CLEARING

- A. Clear areas required for access to site and execution of Work.
- B. Clear surface and subsurface of deleterious materials, including but not limited to the following:
  - 1. Remove surface debris in areas designated to receive construction under this contract and additional areas under the Contractor's control during the course of the project.
  - 2. Remove designated existing concrete curbs, gutters, sidewalks, driveways and exterior equipment pads to extent indicated.
  - 3. Remove designated existing concrete parking and paving areas to extent indicated.
  - 4. Remove designated chain link fencing and gates with concrete post footings.
  - 5. Remove underground utilities designated to be abandoned and any other obstructions encountered during clearing.
- C. Remove trees and shrubs indicated. Remove stumps and root system.
- D. Clear undergrowth and deadwood, without disturbing subsoil.

### 3.4REMOVAL

- A. Remove debris, rock, and extracted plant life from site.

### 3.5TOPSOIL EXCAVATION

- A. Excavate topsoil from areas to be re-graded.
- B. Stockpile in area designated on site. Protect from erosion. Remove excess topsoil not being reused, from site.

### 3.6BACKFILLING EXCAVATIONS

- A. Clean and backfill excavations resulting from site clearing operations that extend below planned finish site grades.
- B. Scarify, moisture condition, place, spread and compact backfill material in accordance with specifications and the Project Soils Report (if provided).

### 3.7FIELD QUALITY CONTROL

- A. Compaction testing of excavation backfill will be performed by the Owner's Testing Laboratory in accordance with ASTM D1557 under provisions of Section 01410.

### 3.8CLEANING

- A. Remove debris, rock, and extracted plant life from site and dispose of legally.
- B. Do not bury removed material on site.

END OF SECTION

SECTION 31 23 16.13  
TRENCHING

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes excavating trenches for utilities from outside building to final connection point or public right-of-way or utility; compacted fill from top of utility bedding to subgrade elevations; and backfilling and compaction.
- B. Related Sections:
  - 1. Section 31 00 00 – Earthwork
  - 2. Section 31 23 23.13 – Backfill
  - 3. Section 32 13 13 – Portland Cement Paving
  - 4. Section 32 12 16 – Asphalt Paving

1.2 REFERENCES

- A. The project Soils Report and any supplements to the Soils Report if available or provided.

1.3 DEFINITIONS

- A. Utility: Any buried pipe, duct, conduit, or cable.

1.4 FIELD MEASUREMENTS

- A. Verify field measurements prior to fabrication.

1.5 COORDINATION

- A. Section 01 30 00 - Administrative Requirements.
- B. Verify Work associated with lower elevation utilities is complete before placing higher elevation utilities.
- C. Verify elevations of existing facilities prior to placing new Work.

PART 2 PRODUCTS

2.1 FILL MATERIALS

- A. Fill and Structural Fill shall be: as specified in the project Soils Report and any supplements to the Soils Report (where provided). [Or as noted within these specifications or other specifications.](#)

2.2 ACCESSORIES

- A. Filter Fabric: Non-biodegradable, woven as manufactured by TC Mirafi, Tenax Corp., Tensar Earth Technologies, Inc. or equal.

- B. GEOTEXTILE MATERIAL: woven geotextile material; Mirafi 500X or equal.

## PART 3 EXECUTION

### 3.1 LINES AND GRADES

#### A. Grades

1. Pipes shall be laid true to the lines and grades indicated.
2. The grade alignment of the pipe shall be maintained by use of a string line parallel with the grade line and vertically above the centerline of the pipe. This line shall be established on level batter boards at intervals of not more than 25 feet. Batter boards shall span the trench and be rigidly anchored to substantial posts driven into the ground on each side of the trench. Three adjacent batter boards must be set before laying pipe to provide a check on the grades and line. Elevation and position of the string line shall be determined from the elevation and position of offset points or stakes located along the pipe route. Pipe shall not be laid using side lines for line or grade.
3. As an alternative means of establishing alignment and grade, a "Laser-Beam" instrument may be utilized with a competent operator.

#### B. Location of Pipe Lines:

1. The location and approximate depths of the proposed pipe lines are shown on the Drawings.
2. An underground locate service shall be enlisted to discover the location of existing utilities regardless if they are shown on the drawings.
3. The Architect/Engineer reserves the right to make changes in lines, grades, and depths of pipe lines and manholes when such changes are necessary.

### 3.2 PREPARATION

- A. Identify required lines, levels, contours, and datum locations.
- B. Protect plant life, lawns, and other features remaining as a portion of final landscaping.
- C. Protect bench marks, existing structures, fences, sidewalks, paving, and curbs from excavating equipment and vehicular traffic.
- D. Maintain and protect above and below grade utilities which are to remain.
- E. Cut out soft areas of subgrade not capable of compaction in place. Backfill and compact to density equal to or greater than requirements for subsequent backfill material.

### 3.3 EXCAVATING

- A. Excavate subsoil required for utilities.
- B. Cut trenches sufficiently wide to enable installation and allow inspection. Remove water or materials that interfere with Work.
- C. Do not interfere with 45 degree bearing splay of foundations.

- D. Hand trim excavation. Hand trim for bell and spigot pipe joints. Remove loose matter.
- E. Remove lumped subsoil, boulders, and rock as directed by the Soils Engineer or other inspector.
- F. Correct over excavated areas with backfill and compact replacement as specified for authorized excavation.
- G. Stockpile excavated material on site. Remove excess material not being used from site.

### 3.4 TRENCHING

- A. Excavations:
  - 1. Excavation shall be dug so that the pipe can be laid and jointed properly. The trench shall be made so that the pipe can be laid to the alignment and depth as shown on the Drawings, and it shall be excavated only so far in advance of pipe laying as permitted by the Architect/Engineer. The excavation shall not be more than two feet wider at the bottom than the outside diameter of the pipe or structure. If there is no interference with construction, or adjacent property, and if soil permits, the Contractor at his own expense shall be permitted to slope the side walls of the excavation starting at a point two (2) feet above the top of pipe.
  - 2. The trench shall be excavated to the depth required so as to provide a uniform and continuous bearing and support for the pipe on bedding material at every point between joints, except where pipe slings or other lifting tackle are withdrawn.
  - 3. Excavation Below Grade:
    - 1) Where excavation indicates that the subsurface materials at the bottom of the trench are in a loose or soft state, the Contractor shall be advised to excavate to a depth where suitable material is encountered, as directed by the Architect/Engineer.
    - 2) Where the bottom of the trench has been excavated by mistake to a greater depth than required, the Contractor shall refill this area using approved material. No additional compensation shall be given to the Contractor. Refilling with earth to bring the bottom of the trench to the proper grade will not be permitted.
  - 4. Excavation within 24 inches of existing utilities shall be governed by specifications of the Owner of the respective utility. The Contractor shall obtain these specifications and follow the same at no extra cost.
  - 5. Excavation and shoring shall adhere to the requirements and safety standards set by OSHA.
- B. Trenching in Advance of Pipe Laying: The trench for the pipe lines shall not be opened for a distance of more than 200 feet at any one time, unless authorized by the Architect/Engineer. At no time will the Contractor be permitted to leave more than 50 feet of trench open at the end of a working day. Adequate protection of open trench shall be provided by the Contractor and the Contractor shall be responsible therefore.

### 3.5 SHEETING AND BRACING

- A. General:
  - 1. Sheeting and bracing of all excavations shall conform to the latest statutes of

the State of California governing safety of workers in the construction industry. When necessary, in the opinion of the Contractor, adequate sheeting and bracing shall be installed to prevent ground movement that may cause damage or settlement to adjacent structures, pipelines and utilities. Any damage due to settlement because of failure to use sheeting or because of inadequate bracing, or through negligence or fault of the Contractor in any other manner, shall be repaired at the Contractor's expense.

2. Sides of trenches in unsuitable, loose or soft material, five feet or more in depth, shall be shored, sheeted, braced, sloped, or otherwise supported by means of sufficient strength to protect employees working within them.
- B. Sheeting Requirements:
3. Where excavations are made with vertical sides which require supporting, the sheeting and bracing shall be of sufficient strength to sustain the sides of the excavations and to prevent movement which could in any way injure the Work, or adjacent structures, or diminish the working space sufficiently to delay the Work. Special precautions shall be taken where there is additional pressure due to the presence of other structures.
  4. It shall be the Contractor's responsibility to select sheeting and bracing of sufficient dimensions and strength and type to adequately support the sides of trenches and excavations.
  5. Sheeting and bracing shall be removed before the completion of the Work.

### 3.6 BACKFILLING

- A. Backfill trenches to contours and elevations shown on the drawings.
- B. Systematically backfill to allow maximum time for natural settlement. Do not backfill over porous, wet, or spongy subgrade surfaces.
- C. Fill materials shall be as specified in the Soils Report and any supplements to the Soils Report (where provided). [Or as noted below:](#)
  1. [Utility trenches should be backfilled with engineered fill, placed in lifts which do not exceed eight \(8\) inches in uncompacted thickness. Thicker lifts may be used only when approved by the soils engineer and provided that satisfactory compaction is achieved. If on site soil is used, the material should be compacted to at least 90 percent relative compaction, by mechanical means only. Imported sand can be used for backfilling trenches, provided it is compacted to at least 90 percent relative compaction. At building slab and pavement areas, the upper three \(3\) feet of trench backfill should be compacted to at least 90 percent relative compaction for on-site soils, and 95 percent where imported clean sand backfill is used. In addition, the upper six \(6\) inches of all trench backfill materials under pavement areas should be compacted to at least 95 percent relative compaction.](#)
- D. Employ a placement method that does not disturb or damage utilities in trench. Jetting of backfill materials to achieve compaction shall not be permitted.
- E. Maintain optimum moisture content of fill materials to attain required compaction density.
- F. Remove surplus fill materials from site.

3.7 TOLERANCES

- A. Top Surface of Backfilling Under Paved Areas: Plus or minus 0.05 feet from required elevations.
- B. Top Surface of General Backfilling: Plus or minus 1/10 feet from required elevations.

3.8 FIELD QUALITY CONTROL

- A. Compaction testing will be performed by the project Soils Engineer.
- B. If tests indicate Work does not meet specified requirements, remove Work, replace, compact, and retest.

3.9 PROTECTION OF FINISHED WORK

- A. Reshape and re-compact fills subjected to vehicular traffic during construction.

END OF SECTION

SECTION 31 23 23.13  
BACKFILL

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes building perimeter and site structure, filling and backfilling to subgrade elevations; fill under slabs-on-grade, paving; fill for over-excavation; consolidation and compaction as specified in the Soils Report and any supplements to the Soils Report.
- B. Related Sections:
  - 1. Section 31 00 00 – Earthwork
  - 2. Section 31 23 16.13 – Trenching
  - 3. Section 32 13 13 – Portland Cement Paving

1.2 REFERENCES

- A. The project Soils Report and any supplements to the Soils Report if provided.

PART 2 PRODUCTS

2.1 FILL MATERIALS

- A. Fill and Structural Fill as specified in the Soils Report and any supplements to the Soils Report. [If soils report is not available for backfill of trenching locations provide material as noted in details or material that meets industry standards and acceptable by the AOR / Engineer.](#)

2.2 ACCESSORIES

- A. Geotextile Fabric: Non-biodegradable, woven as manufactured by TC Mirafi, Tensar Earth Technologies, Inc. or equal.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Administrative Requirements per project documents: Coordination and project conditions.
- B. Verify subdrainage, dampproofing, or waterproofing installation has been inspected.
- C. Verify structural ability of unsupported walls to support loads imposed by the fill.

3.2 PREPARATION

- A. Compact subgrade to density requirements for subsequent backfill materials.

- B. Cut out soft areas of subgrade not capable of compaction in place. Backfill and compact to density equal to or greater than requirements for subsequent fill material.
- C. Roll subgrade surface to identify soft spots; fill and compact to density equal to or greater than requirements for subsequent fill material.

### 3.3 BACKFILLING

- A. Backfill areas to contours and elevations shown on drawings.
- B. Employ a placement method that does not disturb or damage other work.
- C. Maintain optimum moisture content of backfill materials to attain required compaction density.
- D. Backfill against supported walls and structures. Do not backfill against unsupported walls or structures.
- E. Backfill simultaneously on each side of unsupported walls and structures until supports are in place.
- F. Slope grade away from building at a minimum slope of two (2%) percent, unless noted otherwise.
- G. Make gradual grade changes. Blend slope into level areas.
- H. Remove surplus backfill materials from site.

### 3.4 TOLERANCES

- A. Section 01 40 00 - Quality Requirements.
- B. Top Surface of Backfilling Under Paved Areas: Plus or minus 0.05 feet from required elevations.
- C. Top Surface of General Backfilling: Plus or minus 1/10 feet from required elevations.

### 3.5 FIELD QUALITY CONTROL

- A. The project Soils Engineer shall provide testing and inspection services.

### 3.6 PROTECTION OF FINISHED WORK

- A. Reshape and re-compact fills subjected to vehicular traffic.

END OF SECTION



SECTION 32 12 16  
ASPHALT PAVING

## PART 1 - GENERAL

## 1.1 SUMMARY

- . This Section includes provisions for hot-mixed asphalt paving over prepared base [and overlay over existing asphalt paving](#).
- A. Prepared base is specified in SECTION 31 00 00 - EARTHWORK.
- B. Proof rolling of prepared base is included in this Section.
- C. Saw-cutting of edges of existing pavement is specified in site-clearing section.
- E. Header Board installation at edges of new asphalt pavement.
- F. [Crack Filler](#)
- G. [Seal Coat](#)

## 1.2 SUBMITTALS

- A. Material Certificates signed by material producer and Contractor, certifying that each material item complies with or exceeds specified requirements.

## 1.3 SITE CONDITIONS

- A. Weather Limitations: Apply prime and tack coats when ambient temperature is above 50 deg F (10 deg C) and when temperature has not been below 35 deg F (1 deg C) for 12 hours immediately prior to application. Do not apply when base is wet or contains an excess of moisture.
- B. Construct hot-mixed asphalt surface course when atmospheric temperature is above 40 deg F (4 deg C) and when base is dry. Base course may be placed when air temperature is above 30 deg F (minus 1 deg C) and rising.
- C. Grade Control: Establish and maintain required lines and elevations.

## PART 2 - PRODUCTS

## 2.1 MATERIALS

- A. General: Use locally available materials and gradations that exhibit a satisfactory record of previous installations.
- B. Asphalt Concrete: Type B, 1/2" maximum aggregate size as specified in Section 39 of the Caltrans Standard Specifications
- C. Prime Coat: SC-70 Liquid Asphalt as specified in Section 39 and 93 of the Caltrans Standard Specifications.
- D. Tack Coat: SS1 Asphaltic Emulsion as specified in Section 39 and 94 of the Caltrans Standard Specifications.
- E. Herbicide Treatment: Commercial chemical for weed control, registered by Environmental Protection Agency. Provide granular, liquid, or wettable powder form.
- E. [Header Board: 2x6 Pressure treated Douglas Fir or Redwood for all lumber shown on the Drawings. Stakes shall be 1"x2"x18" wood or 2' long metal forming stakes. If metal stakes are used be sure at least two holes within stakes are provided against the header board. Fasteners shall be galvanized screws. Note – 2x10 or 2x12 header boards may be required as noted on plans. Provide stakes long enough and strong enough to support header boards of these sizes.](#)
- F. [Crack Filler: OverKote Crack Filler by Reed & Graham or approved equal.](#)

G. Seal Coat: OverKote by Reed & Graham or approved equal.

PART 3 - EXECUTION

3.1 SURFACE PREPARATION

- A. General: Remove loose material from compacted base surface immediately before applying herbicide treatment or prime coat.
- B. Proof-roll prepared subgrade surface to check for unstable areas and areas requiring additional compaction.
- C. Notify Owner/Architect of unsatisfactory conditions. Do not begin paving work until deficient subgrade and base areas have been corrected and are ready to receive paving.
- D. Herbicide Treatment: Apply chemical weed control agent in strict compliance with manufacturer's recommended dosages and application instructions. Apply to compacted, dry base prior to application of prime coat.
- E. Prime Coat: Apply at rate of 0.20 to 0.50 gal. per sq. yd., over compacted subgrade. Apply material to penetrate and seal, but not flood, surface. Cure and dry as long as necessary to attain penetration and evaporation of volatile.
- F. Tack Coat: Apply to contact surfaces of previously constructed asphalt or Portland cement concrete and surfaces abutting or projecting into hot-mixed asphalt pavement. Distribute at rate of 0.05 to 0.15 gal. per sq. yd. of surface.
- G. Allow to dry until at proper condition to receive paving.
- H. Exercise care in applying bituminous materials to avoid smearing of adjoining concrete surfaces. Remove and clean damaged surfaces.
- I. Install Header Board in the locations and as shown on the Drawings.
- H. Crack Filler: On existing AC paving, prepare cracks as recommended by the manufacturer of the crack filler product, but typically all cracks are to be cleaned, moist and damp prior to filling. Fill all cracks. Cracks 1/4" or larger must be dug out by removing the AC paving around the crack to an area approximately 4'-0" x 4'-0" minimum. Compact the baserock to 95%. Apply tack coat (SS1H oil) to all edges and patch back with 3" minimum of AC paving. Where drawings do not indicate specific crack locations and the job walk is not mandatory, contractor is to include three (3) areas of this 1/4" crack repair method in the base bid in addition to all areas identified on the plans.
- I. Seal Coat: New AC paving including patching and large crack repair areas must be in place and cured as per A.S.M.A standard specifications, typically a minimum of fourteen (14) days prior to application of the seal coat. Power wash entire area to receive seal coat. Excessive oil spots are to be removed with a scraper, stiff brush and detergent. OverKote Oil Spot Sealer should be applied to prepared oil spots.

3.2 PLACING MIX

- A. General: Place hot-mixed asphalt mixture on prepared surface, spread, and strike off. Spread mixture at minimum temperature of 225 deg F (107 deg C). Place areas inaccessible to equipment by hand. Place each course (2" maximum lift) to required grade, cross-section, and compacted thickness.
- B. Pavement Placing: Place in strips not less than 8 feet wide, unless otherwise acceptable to Architect. After first strip has been placed and rolled, place succeeding strips and extend rolling to overlap previous strips. Complete base course for a section before placing surface course.
- C. Immediately correct surface irregularities in finish course behind paver.

- Remove excess material forming high spots with shovel or lute.
- D. Joints: Make joints between old and new pavements, or between successive days' work, to ensure continuous bond between adjoining work. Construct joints to have same texture, density, and smoothness as other sections of hot-mixed asphalt course. Clean contact surfaces and apply tack coat.
- E. Seal Coat: New AC paving including patching and large crack repair areas must be in place and cured as per A.S.M.A standard specifications, typically a minimum of fourteen (14) days prior to application of the seal coat. Power wash entire area to receive seal coat. Excessive oil spots are to be removed with a scraper, stiff brush and detergent. OverKote Oil Spot Sealer should be applied to prepared oil spots. Install OverKote per manufacturers recommendations, but install a minimum of two (2) coats at a minimum rate of 30 gallons per 1,000sf of surface area. Dilute per manufacturers recommendations.
- F. Overlay: When installing asphalt paving over existing asphalt paving prepare existing surface per Caltrans or manufactures' requirements prior to installation of new asphalt paving.

### 3.3 ROLLING

- A. General: Begin rolling when mixture will bear roller weight without excessive displacement.
- B. Compact mixture with hot hand tampers or vibrating plate compactors in areas inaccessible to rollers.
- C. Breakdown Rolling: Accomplish breakdown or initial rolling immediately following rolling of joints and outside edge. Check surface after breakdown rolling and repair displaced areas by loosening and filling, if required, with hot material.
- D. Second Rolling: Follow breakdown rolling as soon as possible, while mixture is hot. Continue second rolling until mixture has been evenly compacted.
- E. Finish Rolling: Perform finish rolling while mixture is still warm enough for removal of roller marks. Continue rolling until roller marks are eliminated and course has attained 95 percent laboratory density.
- F. Patching: Remove and replace paving areas mixed with foreign materials and defective areas. Cut out such areas and fill with fresh, hot hot-mixed asphalt. Compact by rolling to specified surface density and smoothness.
- G. Protection: After final rolling, do not permit vehicular traffic on pavement until it has cooled and hardened.
- H. Erect barricades to protect paving from traffic until mixture has cooled enough not to become marked.

### 3.4 FIELD QUALITY CONTROL

- A. General: Testing in-place hot-mixed asphalt courses for compliance with requirements for thickness and surface smoothness will be done by Owner's testing laboratory. Repair or remove and replace unacceptable paving as directed by Architect.
- B. Thickness: In-place compacted thickness tested in accordance with ASTM D 3549 will not be acceptable if exceeding following allowable variations:
  - 1. Base Course: Plus or minus 1/4 inch.
  - 2. Surface Course: Plus or minus 1/4 inch.

- C. Surface Smoothness: Test finished surface of each hot-mixed asphalt course for smoothness, using 10-foot straightedge applied parallel with and at right angles to centerline of paved area. Surfaces will not be acceptable if exceeding the following tolerances for smoothness:
  - 1. Base Course Surface: 1/4 inch.
  - 2. Wearing Course Surface: 3/16 inch.
- D. Check surface areas at intervals as directed by Architect.

END OF SECTION

SECTION 32 13 13  
PORTLAND CEMENT CONCRETE PAVING

## PART 1 - GENERAL

## 1.1 SUMMARY

- . This Section includes exterior portland cement concrete paving for the following:
  - 1. Curbs and gutters and aprons.
  - 2. Slab on Grade walkways
  - 3. Steps and nosing
  - 4. Cutting and Replacing of Existing Concrete
  - 5. Housekeeping pads for mechanical or electrical equipment
- A. Related Sections: The following Sections contain requirements that relate to this Section:
  - 1. Division 31 Section "Earthwork" for sub-grade preparation, grading and base course.
  - 2. Division 7 Section "Joint Sealants" for joint fillers and sealants within concrete paving and at joints with adjacent construction.

## 1.2 SUBMITTALS

- A. General: Submit the following according to the Conditions of the Contract and Division 1 Specification Section 01 30 00 / 01 33 00.
- B. Product data for proprietary materials and items, including reinforcement and forming accessories, admixtures, joint systems, curing compounds, and others if requested by Architect.
- C. Design mixes for each class of concrete. Include revised mix proportions when characteristics of materials, project conditions, weather, test results, or other circumstances warrant adjustments.
- D. Material certificates in lieu of material laboratory test reports when permitted by Architect. Material certificates shall be signed by manufacturer and Contractor certifying that each material item complies with or exceeds requirements. Provide certification from admixture manufacturers that chloride content complies with requirements.
- E. Field Sample at least 2'x2' of finish (medium broom) to remain on-site until closeout is complete. Field Sample can become part of finished work, but no work shall proceed until finish sample is approved by Architect. Failure to provide finish sample will result in possible removal of all concrete.

## 1.3 QUALITY ASSURANCE

- A. Concrete Standards: Comply with provisions of the following standards, except where more stringent requirements are indicated.
  - 1. American Concrete Institute (ACI) 301, "Specifications for Structural Concrete for Buildings."
  - 2. ACI 318, "Building Code Requirements for Reinforced Concrete."
  - 3. Concrete Reinforcing Steel Institute (CRSI) "Manual of Standard Practice."
- B. Concrete Manufacturer Qualifications: Manufacturer of ready-mixed concrete products complying with ASTM C 94 requirements for production facilities and equipment.
- C. Concrete Testing Service: The owner will engage a qualified independent testing agency to perform materials evaluation tests.
- D. Pre-installation Conference: Conduct conference at Project site to comply with the following:
  - 1. Before installing portland cement concrete paving, meet with representatives of authorities having jurisdiction, Owner, Architect, consultants, independent testing agency, and other concerned entities to review requirements. Notify participants at least 3 working days before conference.

## 1.4 PROJECT CONDITIONS

- A. Traffic Control: Maintain access for vehicular and pedestrian traffic as required for other construction activities.

## PART 2 - PRODUCTS

## 2.1 FORMS

- A. Form Materials: Wood, plywood, metal, metal-framed plywood, or other acceptable panel-type materials to provide full-depth, continuous, straight, smooth exposed surfaces.
- B. Form Release Agent: Provide commercial formulation form-release agent with a maximum of 350 g/L volatile organic compounds (VOCs) that will not bond with, stain, or adversely affect concrete surfaces and will not impair subsequent treatments of concrete surfaces.

## 2.2 REINFORCING MATERIALS

- A. Reinforcing Bars and Tie Bars: ASTM A 615, Grade 60, deformed.
- B. Joint Dowel Bars: Plain steel bars, ASTM A 615, Grade 60. Cut bars true to length with ends square and free of burrs.
- C. Supports for Reinforcement: Chairs, spacers, dowel bar supports and other devices for spacing, supporting, and fastening reinforcing bars in place. Use wire bar-type supports complying with CRSI specifications.

## 2.3 CONCRETE MATERIALS

- A. Portland Cement: ASTM C 150, Type II.
  - 1. Use one brand of cement throughout Project unless otherwise acceptable to Architect.
- B. Fly Ash: ASTM C 618, Type F.
- C. Normal-Weight Aggregates: ASTM C 33, Class 4, and as follows. Provide aggregates from a single source.
  - 1. Maximum Aggregate Size: 3/4 inch.
  - 2. Do not use fine or coarse aggregates that contain substances that cause spalling.
  - 3. Local aggregates not complying with ASTM C 33 that have been shown to produce concrete of adequate strength and durability by special tests or actual service may be used when acceptable to Architect.
- D. Water: Potable.

## 2.4 ADMIXTURES

- A. Provide concrete admixtures that contain not more than 0.1 percent chloride ions.
- B. Air-Entraining Admixture: ASTM C 260, certified by manufacturer to be compatible with other required admixtures.
- C. Water-Reducing Admixture: ASTM C 494, Type A.

## 2.5 CURING MATERIALS

- A. Clear Solvent-Borne Liquid Membrane-Forming Curing Compound: ASTM C 309, Type Class A or B, wax free.
- B. Evaporation Control: Monomolecular film-forming compound applied to exposed concrete slab surfaces for temporary protection from rapid moisture loss.

## 2.6 RELATED MATERIALS

- A. Bonding Agent: Acrylic or styrene butadiene.

## 2.7 CONCRETE MIX

- A. Prepare design mixes for each type and strength of normal-weight concrete by either laboratory trial batch or field experience methods as specified in ACI 301. For the trial batch method, use a qualified independent testing agency for preparing and reporting proposed mix designs.
  - 1. Do not use the Owner's field quality-control testing agency as the independent testing agency.
  - 2. Limit use of fly ash to 25 percent of cement content by weight.
- B. Proportion mixes according to ACI 211.1 and ACI 301 to provide normal-weight concrete with the following properties:
  - 1. Compressive Strength (28-Day): 3,000 psi.
  - 2. Maximum Water-Cement Ratio at Point of Placement: 0.50.
  - 3. Slump Limit at Point of Placement: 4 inches.
- C. Add air-entraining admixture at manufacturer's prescribed rate to result in concrete at point of placement having an air content as follows with a tolerance of plus or minus 1-1/2 percent:
  - 1. Air Content: 6.0 percent for 3/4-inch maximum aggregate.
- D. Adjustment to Concrete Mixes: Mix design adjustments may be requested by Contractor when characteristics of materials, project conditions, weather, test results, or other circumstances warrant.

## 2.8 CONCRETE MIXING

- A. Ready-Mixed Concrete: Comply with requirements and with ASTM C 94.
  - 1. When air temperature is between 85 deg F (30 deg C) and 90 deg F (32 deg C), reduce mixing and delivery time from 1-1/2 hours to 75 minutes; when air temperature is above 90 deg F (32 deg C), reduce mixing and delivery time to 60 minutes.

## PART 3 - EXECUTION

## 3.1 SURFACE PREPARATION

- A. Remove loose material from compacted base surface immediately before placing concrete.

## 3.2 EDGE FORMS AND SCREED CONSTRUCTION

- A. Set, brace, and secure edge forms, and bulkheads, for paving to required lines, grades, and elevations. Install forms to allow continuous progress of work and so that forms can remain in place at least 24 hours after concrete placement.
- B. Check completed formwork and screeds for grade and alignment to following tolerances:
  - 1. Top of Forms: Not more than 1/8 inch in 10 feet.
  - 2. Vertical Face on Longitudinal Axis: Not more than 1/4 inch in 10 feet.
- C. Clean forms after each use and coat with form release agent as required to ensure separation from concrete without damage.

## 3.3 PLACING REINFORCEMENT

- A. General: Comply with Concrete Reinforcing Steel Institute's recommended practice for "Placing reinforcing Bars" for placing and supporting reinforcement.
- B. Clean reinforcement of loose rust and mill scale, earth, ice, or other bond-reducing materials.
- C. Arrange, space, and securely tie bars and bar supports to hold reinforcement in position during concrete placement. Maintain minimum cover to reinforcement.

## 3.4 JOINTS

- A. General: Construct contraction, construction, and expansion joints true to line with

faces perpendicular to surface plane of concrete as shown on the Drawings. Construct transverse joints at right angles to the centerline, unless indicated otherwise.

1. When joining existing paving, place transverse joints to align with previously placed joints, unless indicated otherwise.
- B. Contraction Joints: Provide weakened-plane contraction joints, sectioning concrete at 20 ft intervals. Construct contraction joints for a depth equal to at least 1/4 of the concrete thickness, as follows:
  1. Tooled Joints: Form contraction joints in fresh concrete by grooving and finishing each edge of joint with a radiused jointer tool.
  2. Inserts: Form contraction joints by inserting pre-molded plastic, hardboard, or fiberboard strips into fresh concrete until top surface of strip is flush with paving surface. Radius each joint edge with a jointer tool. Carefully remove strips or caps of two-piece assemblies after concrete has hardened. Clean groove of loose debris and install sealant per Division 7. Be sure joint is deep enough to receive sealant to comply with the sealant manufacturer's installation requirements.
- C. Construction Joints: Set construction joints at side and end terminations of paving and at locations where paving operations are stopped for more than 1/2 hour, unless paving terminates at isolation joints.
  1. Continue reinforcement across construction joints unless indicated otherwise. Do not continue reinforcement through sides of strip paving unless indicated.
  2. Use bonding agent on existing concrete surfaces that will be joined with fresh concrete.
- D. Expansion Joints: Form expansion joints of preformed joint filler strips abutting concrete curbs, inlets, structures, walks, other fixed objects, and where indicated.
  1. Locate expansion joints at intervals of 50 feet, unless indicated otherwise.
  2. Extend joint fillers full width and depth of joint, not less than 1/2 inch or more than 1 inch below finished surface where joint sealant is indicated. Place top of joint filler flush with finished concrete surface when no joint sealant is required.
  3. Furnish joint fillers in one-piece lengths for full width being placed wherever possible. Where more than one length is required, lace or clip joint filler sections together.
  4. Protect top edge of joint filler during concrete placement with a metal, plastic, or other temporary preformed cap. Remove protective cap after concrete has been placed on both sides of joint.
- E. Installation of joint fillers and sealants is specified in Division 7 Section "Paving Joint Sealants."
- F. Install dowel bars and support assemblies at expansion joints. Lubricate or asphalt-coat one half of dowel length to prevent concrete bonding to one side of joint.

### 3.5 CONCRETE PLACEMENT

- A. Inspection: Before placing concrete, inspect and complete formwork installation, reinforcing steel, and items to be embedded or cast in. Notify other trades to permit installation of their work.
- B. Moisten base to provide a uniform dampened condition at the time concrete is placed. Do not place concrete around manholes or other structures until they are at the required finish elevation and alignment.
- C. Comply with requirements and with ACI 304R for measuring, mixing, transporting, and placing concrete.
- D. Deposit and spread concrete in a continuous operation between transverse joints. Do not push or drag concrete into place or use vibrators to move concrete into place.
- E. Use a bonding agent at locations where fresh concrete is placed against hardened or partially hardened concrete surfaces.
- F. Consolidate concrete by hand-spading, rodding, or tamping. Use procedures to consolidate concrete complying with ACI 309R.
  1. Use only square-faced shovels for hand-spreading and consolidation.



Consolidate with care to prevent dislocating reinforcing, dowels, and joint devices.

- G. Screed paved surfaces with a straightedge and strike off. Use bull floats or darbies to form a smooth surface plane before excess moisture or bleed water appears on the surface. Do not further disturb concrete surfaces prior to beginning finishing operations.
- H. When adjoining pavement lanes are placed in separate pours, do not operate equipment on concrete until pavement has attained 85 percent of its 28-day compressive strength.
- I. Hot-Weather Placement: Place concrete complying with ACI 305R and as specified when hot weather conditions exist.
  - 1. Cool ingredients before mixing to maintain concrete temperature at time of placement to below 90 deg F (32 deg C). Mixing water may be chilled or chopped ice may be used to control temperature, provided water equivalent of ice is calculated to total amount of mixing water. Using liquid nitrogen to cool concrete is Contractor's option.
  - 2. Cover reinforcing steel with water-soaked burlap if it becomes too hot, so that steel temperature will not exceed the ambient air temperature immediately before embedding in concrete.
  - 3. Fog spray forms, reinforcing steel, and sub-grade just before placing concrete. Keep sub-grade moisture uniform without standing water, soft spots, or dry areas.

### 3.6 CONCRETE FINISHING

- A. Float Finish: Begin floating when bleed water sheen has disappeared and the concrete surface has stiffened sufficiently to permit operations. Float surface by hand-floating. Finish surfaces to true planes within a tolerance of 1/8 inch in 10 feet as determined by a 10-foot-long straightedge placed anywhere on the surface in any direction. Cut down high spots and fill low spots. Refloat surface immediately to a uniform granular texture.
  - 1. Medium Textured Broom (slip resistant) Finish (for slopes  $\leq 6\%$ ): Draw a soft bristle broom across concrete surface in direction of flow to provide a uniform fine line texture finish.
  - 2. Heavy Textured Broom (slip resistant) Finish (for slopes  $\geq 6\%$ )
- B. Final Tooling:
  - 1. Tool edges of gutters, curbs, and joints formed in fresh concrete with a jointing tool to a 1/4" radius. Repeat tooling of edges and joints after applying surface finishes. Eliminate tool marks on concrete surfaces.

### 3.7 CONCRETE PROTECTION AND CURING

- A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures. Comply with the recommendations of ACI 306R for cold weather protection and ACI 305R for hot weather protection during curing.
- B. Evaporation Control: In hot, dry, and windy weather, protect concrete from rapid moisture loss before and during finishing operations with an evaporation-control material. Apply according to manufacturer's instructions after screeding and bull floating, but before floating.
- C. Begin curing after finishing concrete but not before free water has disappeared from concrete surface.
- D. Curing Methods: Cure concrete by curing compound:
  - 1. Curing Compound: Apply uniformly in continuous operation by power spray or roller according to manufacturer's directions. Recoat areas subjected to heavy rainfall within 3 hours after initial application. Maintain continuity of coating and repair damage during curing period.

### 3.8 FIELD QUALITY CONTROL TESTING

- A. The owner will employ a qualified independent testing and inspection agency to sample

materials, perform tests, and submit test reports during concrete placement as follows:

- B. The Owner will employ a qualified testing and inspection agency to sample materials, perform tests, and submit test reports during concrete placement. Sampling and testing for quality control may include the following:
  - a. Compression Test Specimens: ASTM C 31; one set of four standard cylinders for each compressive-strength test, unless directed otherwise. Mold and store cylinders for laboratory-cured test specimens except when field-cured test specimens are required.
  - b. Compressive-Strength Tests: ASTM C 39; one set for each day's pour of each concrete class exceeding 5 cu. yd. but less than 25 cu. yd., plus one set for each additional 50 cu. yd. Test one specimen at 7 days, test two specimens at 28 days, and retain one specimen in reserve for later testing if required. When total quantity of a given class of concrete is less than 50 cu. yd., Architect may waive strength testing if adequate evidence of satisfactory strength is provided. Strength level of concrete will be considered satisfactory if averages of sets of three consecutive strength test results equal or exceed specified compressive strength and no individual strength test result falls below specified compressive strength by more than 500 psi.
- C. Test results will be reported in writing to Architect, concrete manufacturer, and Contractor within 24 hours of testing. Reports of compressive strength tests shall contain the Project identification name and number, date of concrete placement, name of concrete testing agency, concrete type and class, location of concrete batch in paving, design compressive strength at 28 days, concrete mix proportions and materials, compressive breaking strength, and type of break for both 7-day and 28-day tests.
- D. Nondestructive Testing: Impact hammer, sonoscope, or other nondestructive device may be permitted but shall not be used as the sole basis for acceptance or rejection.
- E. Additional Tests: The testing agency will make additional tests of the concrete when test results indicate slump, air entrainment, concrete strengths, or other requirements have not been met, as directed by Architect. Testing agency may conduct tests to determine adequacy of concrete by cored cylinders complying with ASTM C 42, or by other methods as directed.

### 3.9 REPAIRS AND PROTECTION

- A. Remove and replace concrete paving that is broken, damaged, or defective, or does not meet the requirements of this Section.
- B. Drill test cores where directed by Architect when necessary to determine magnitude of cracks or defective areas. Fill drilled core holes in satisfactory pavement areas with portland cement concrete bonded to paving with epoxy adhesive.
- C. Protect concrete from damage. Exclude traffic from paving for at least 14 days after placement. When construction traffic is permitted, maintain paving as clean as possible by removing surface stains and spillage of materials as they occur.
- D. Maintain concrete paving free of stains, discoloration, dirt, and other foreign material. Sweep concrete paving not more than 2 days prior to date scheduled for Substantial Completion inspections.

END OF SECTION

SECTION 32 17 23  
PAVEMENT MARKINGS

## PART 1 GENERAL

## 1.01 SECTION INCLUDES

- A. Parking Stall Painting and General Striping.
- B. Parking Stall Numbers.

## 1.02 RELATED SECTIONS

- A. Asphaltic Concrete Paving.

## 1.03 QUALITY ASSURANCE

- A. Materials and work of this section shall conform to **Owner** standards and specifications.

## 1.04 REGULATIONS

- A. Conform to regulations of Bay Area Air Quality Management District and California Air Resources Board regarding use of architectural coatings (paint).

## 1.05 ENVIRONMENTAL REQUIREMENTS

- A. Do no painting when temperatures on the surface and of air in vicinity of the painting work are below 40 degrees F or below those temperatures recommended by the paint manufacturer.

## PART 2 PRODUCTS .

## 2.01 STANDARD CATALOG PRODUCTS

- A. Symbol Marking Paint and Traffic Marking Paint: Water borne product conforming to State Specification **PTWB-01R2**; Dunn-Edwards Traffic Paint W801, Sinclair 160 Vinyl Traffic Paint, or equal product substituted under provisions of Section 01630.
  - 1. Parking Stalls: White color.
  - 2. Accessible Parking: Blue & White to meet current code requirements

## PART 3 EXECUTION 3.01 EXAMINATION

- A. Examine receiving surfaces and verify that surfaces are proper for installation.
- B. Do not start work until unsatisfactory conditions have been corrected.

## 3.02 PREPARATION

- A. Remove dirt, oil, grease, and other foreign matter from the areas of the pavement and curbs to be painted.
- B. Do not apply traffic paint to surfaces which are excessively dirty, damp and cold.

## 3.03 INSTALLATION

- A. Apply traffic paint with atomizing spray type striping machine equipped with separate thermostatically controlled heating devices for each paint pot and capable of applying paint whereby the lines and markings have clear-cut edges, true and smooth alignments and uniform thickness.
- B. Apply paint with completed lines and markings shall be clean, **sharp** and to dimensions.
  - 1. Ragged ends of segments, foginess along the sides or objectionable dribbling of paint along the unpainted portions of the stripes will not be permitted.
  - 2. The finished paint shall have an opaque, well painted appearance with no black or other discolorations showing through.
- C. Apply striping to the following widths:
  - 1. Parking Stall Lines: As shown on drawings or to meet current code.
  - 2. Numbers: As shown on drawings or 1" wide and 8" tall, white, if not indicated on drawings.

## 3.04 PROTECTION

- A. Exercise reasonable precautions to protect the paint, as applied, during drying time. Remove objectionable tracking.

END OF SECTION