



**Business Services
Contracts Office**

5735 47th Avenue • Sacramento, CA 95824
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*Rose Ramos, Chief Business Officer
Dan Sanchez, Manager, Purchasing Services*

ADDENDUM NO. 0B

Date: 05/10/2022

Issued by: Sacramento City Unified School District

**Project: Bid No. 455-2A
Shade Structures at Various Sites Group 2A**

This addenda shall supersede the original Information, attachments, and specifications regarding Bid No. **455-2A** where it adds to, deletes from, clarifies or otherwise modifies them. All other conditions and any previous addenda shall remain unchanged.

Part A – Bidding and Contract Requirements

AD0B.01 Refer to DOCUMENT 00 01 10, TABLE OF CONTENTS, Division 0:

ADD Document 00 21 13.1, Determination of Bidder Responsibility Questionnaire

AD0B.02 Refer to DOCUMENT 00 01 10, TABLE OF CONTENTS, Technical Specifications:

ADD Specification Section 07 9200 JOINT SEALANTS

ADD Specification Section 09 9100 PAINTING

AD0B.03 Refer to Division 00:

ADD Document 00 21 13.1 DETERMINATION OF BIDDER RESPONSIBILITY QUESTIONNAIRE.
Attachment AD0B.17

AD0B.04 Refer to Division 00, DOCUMENT 00 52 13 AGREEMENT:

REPLACE DOCUMENT 00 52 13 - AGREEMENT in its entirety. Attachment AD0B.18

- Revises Time of Completion from (one hundred forty-eight (148), to two hundred eight (208) consecutive days.
- Revises paragraph numbering to start with one (1).

AD0B.05 Refer to Division 01:

REPLACE DOCUMENT 01 11 00 – SUMMARY OF WORK in its entirety. Attachment AD0B.19

Bid No, 455-2A
Shade Structures at Various Sites Group 2A
ADDENDUM NO. 0B

- Revises 1.02 SUMMARY OF WORK COVERED BY CONTRACT DOCUMENTS, Also Included:
 - Item # 13 Deliveries anticipated to start date revised to 10/10/22.
 - Items# 16, 17, & 18 added.

AD0B.06 Refer to Division 01:

REPLACE DOCUMENT 01 32 13 – SCHEDULING OF WORK in its entirety. Attachment AD0B.20

- Revises schedule dates due to longer lead times of OFCI Shade Structure Materials.
- Calls out Swing Shift Work for Shade Structure Install Phase.
- Revises Anticipated Last Day of School from 6/16/22 to 6/24/22.

AD0B.07 Refer to Division 01:

REPLACE DOCUMENT 01 45 00 – QUALITY CONTROL in its entirety. Attachment AD0B.21

- Replaces version with “Author Comments” in the right margin.

Part B – TECHNICAL REQUIREMENTS

AD0B.08 Refer to Technical Specifications Section:

ADD Specification Section 07 9200 – JOINT SEALANTS in its entirety. Attachment AD0B.22

ADD Specification Section 09 9100 – PAINTING in its entirety. Attachment AD0B.23

Part C - DRAWINGS

AD0B.09 Refer to Caroline Wenzel ES DSA# 02-120001, Drawing Sheet E1.1, SITE PLAN - ELECTRICAL:

Replace Sheet E1.1, SITE PLAN – ELECTRICAL in its entirety. Attachment AD0B.24

- Conduit and ground rod callouts revised.
- Keyed Notes 1 and 3 revised.
- Keyed Note 8 added.

AD0B.10 Refer to Caroline Wenzel ES DSA# 02-120001, Drawing Sheet E3.1, DETAILS:

REPLACE Drawing Sheet E3.1 in its entirety. Attachment AB0B.25

- Detail 2, Typical H/20 Traffic Rated Pull Box revised.
- Detail 4, Conduit Stub in Post Detail revised.
- Detail 5, Typical Steel Column & Rebar Grounding Detail revised.

Bid No, 455-2A
Shade Structures at Various Sites Group 2A
ADDENDUM NO. 0B

AD0B.11 Refer to Hollywood Park ES DSA# 02-120003 Drawing Sheet E1.1, SITE PLAN - ELECTRICAL:

Replace Sheet E1.1, SITE PLAN – ELECTRICAL in its entirety. Attachment AB0B.26

- Conduit and ground rod callouts revised.
- Keyed Notes 1 and 3 revised.
- Keyed Note 9 added.

AD0B.12 Refer to Hollywood Park ES DSA# 02-120003 Drawing Sheet E3.1, DETAILS:

REPLACE Drawing Sheet E3.1 in its entirety. Attachment AB0B.27

- Detail 2, Typical H/20 Traffic Rated Pull Box revised.
- Detail 4, Conduit Stub in Post Detail revised.
- Detail 5, Typical Steel Column & Rebar Grounding Detail revised

AD0B.13 Refer to John H. Still ES DSA# 02-120004 Drawing Sheet E1.1, SITE PLAN - ELECTRICAL:

Replace Sheet E1.1, SITE PLAN – ELECTRICAL in its entirety. Attachment AB0B.28

- Conduit and ground rod callouts revised.
- Keyed Notes 1 and 3 revised.
- Keyed Notes 6 and 7 added.

AD0B.14 Refer to John H. Still ES DSA# 02-120004 Drawing Sheet E3.1, DETAILS:

REPLACE Drawing Sheet E3.1 in its entirety. Attachment AB0B.29

- Detail 2, Typical H/20 Traffic Rated Pull Box revised.
- Detail 3, Typical Trench Detail revised.
- Detail 4, Conduit Stub in Post Detail revised.
- Detail 5, Typical Steel Column & Rebar Grounding Detail revised.

AD0B.15 Refer to Leonardo Da Vinci K-8 School DSA# 02-120005 Drawing Sheet E1.1, SITE PLAN - ELECTRICAL:

Replace Sheet E1.1, SITE PLAN – ELECTRICAL in its entirety. Attachment AB0B.30

- Conduit and ground rod callouts revised.
- Keyed Notes 1 and 3 revised.
- Keyed Note 7 added.

AD0B.16 Refer to Leonardo Da Vinci K-8 School DSA# 02-120005 Drawing Sheet E3.1, DETAILS:

REPLACE Drawing Sheet E3.1 in its entirety. Attachment AB0B.31

- Detail 2, Typical H/20 Traffic Rated Pull Box revised.
- Detail 4, Conduit Stub in Post Detail revised.
- Detail 5, Typical Steel Column & Rebar Grounding Detail revised.

Bid No, 455-2A
Shade Structures at Various Sites Group 2A
ADDENDUM NO. 0B

Part D- BIDDERS QUESTIONS

(Not Used)

List of Attachments:

- AD0B.17** Document 00 21 13.1 - Determination of Bidder Responsibility Questionnaire (5 pages)
- AD0B.18** Document 00 52 13 – Agreement (5 5ages)
- AD0B.19** Document 01 11 00 – Summary of Work (5 pages)
- AD0B.20** Document 01 32 13 – Scheduling of Work (15 pages)
- AD0B.21** Document 01 45 00 – Quality Control (4 pages)
- AD0B.22** Specification Section 07 9200 – Joint Sealants (12 pages)
- AD0B.23** Specification Section 09 9100 – Painting (16 pages)
- AD0B.24** Caroline Wenzel ES DSA# 02-120001, Sheet E1.1, SITE PLAN - ELECTRICAL
- AD0B.25** Caroline Wenzel ES DSA# 02-120001, Sheet E3.1, DETAILS
- AD0B.26** Hollywood Park ES DSA# 02-120003 Sheet E1.1, SITE PLAN - ELECTRICAL
- AD0B.27** Hollywood Park ES DSA# 02-120003 Drawing Sheet E3.1, DETAILS
- AD0B.28** John H. Still ES DSA# 02-120004 Sheet E1.1, SITE PLAN - ELECTRICAL
- AD0B.29** John H. Still ES DSA# 02-120004 Sheet E3.1, DETAILS
- AD0B.30** LDV K-8 School DSA# 02-120005 Drawing E1.1, SITE PLAN – ELECTRICAL
- AD0B.31** LDV K-8 School DSA# 02-120005 Drawing Sheet E3.1, DETAILS

END OF ADDENDUM NO. 0B

Contractor to sign as acknowledgment of receipt and return with Bid:

Signature: _____ Date: _____

Company Name (please print) _____

BIDDER INFORMATION AND FORMS

DETERMINATION OF BIDDER RESPONSIBILITY QUESTIONNAIRE

The Public Contract Code requires that school districts, in certain circumstances, bid and award public contracts to the lowest *responsive* and *responsible* bidder. California law establishes a very comprehensive standard concerning bidder responsibility, such that a school agency has wide discretion and broad authority to make its determination of bidder responsibility on a case-by-case basis. Such authority empowers the District to conduct its own investigation and make an assessment of the facts and circumstances to ascertain the quality, fitness, capacity and trustworthiness of each bidder. It is the purpose of this questionnaire to assist in determining contractor responsibility, and to aid the District in selecting the lowest responsible bidder (when the District does not opt to reject all bids).

Bidders must have completed the questionnaire, truthfully and completely, at least once in the past twelve (12) months to be considered for award on this project. If you completed this questionnaire within the past twelve (12) months, you must certify that the data previously submitted is still true and accurate. Bidders must either complete the entire questionnaire or certify the previously submitted data as still current, truthful, and accurate, to be determined responsible and responsive to the bid announcement.

Bidders must answer all questions and provide all requested information, where applicable. If the answer to any question is "none", or is not applicable, please so state in writing. The District will evaluate bidders not only on the information contained in this questionnaire, but also using any and all information available through other sources, including District records, staff or representatives, interviews, and/or reference checks. Based on a complete evaluation, the awarding authority has sole and discretionary judgment to determine if the bidder is deemed responsible and/or qualified to perform the work. Bidders discovered to have omitted required information or provided false, misleading, or substantively incorrect statements, as determined solely by the District, will be disqualified from bidding. The District reserves the right to waive minor irregularities and to make all final determinations regarding prospective bidders' responsibility, fitness, and/or qualifications.

1. Experience: Describe three (3) public works or school district projects that your firm completed within the last three years, either as a Prime or Subcontractor, where your scope of work was similar in building size, scope, contract value and complexity to the proposed project.

A. Project Name: _____

Location: _____ Date completed: _____

Project Description (Scope of work, similarities to current advertised project):

Owner's Representative Name: _____ Ph number: _____

Construction Manager Name: _____ Ph number: _____

General Contractor Name _____ Ph number: _____

(If you were a Subcontractor):

Name of Architect: _____ Number of RFIs _____

Your base contract amount: \$ _____ Final contract amount: \$ _____

Explain difference from Base Contract amount, if any. _____

Initial contract time: _____ days Time extensions: _____ days
Days past contract completion date (excl. authorized time extensions): _____ days

B. Project Name: _____

Location: _____ Date completed: _____

Project Description (Scope of work, similarities to current advertised project):

Owner's Representative Name: _____ Ph number: _____

Construction Manager Name: _____ Ph number: _____

General Contractor Name _____ Ph number: _____

(If you were a Subcontractor):

Name of Architect: _____ Number of RFIs _____

Your base contract amount: \$ _____ Final contract amount : \$ _____

Explain difference from Base Contract amount, if any. _____

Initial contract time: _____ days Time extensions: _____ days

Days past contract completion date (excl. authorized time extensions): _____ days

C. Project Name: _____

Location: _____ Date completed: _____

Project Description (Scope of work, similarities to current advertised project):

Owner's Representative Name: _____ Ph number: _____

Construction Manager Name: _____ Ph number: _____

General Contractor Name _____ Ph number: _____

(If you were a Subcontractor):

Name of Architect: _____ Number of RFIs _____

Your base contract amount: \$ _____ Final contract amount : \$ _____

Explain difference from Base Contract amount, if any. _____

Initial contract time: _____ days Time extensions: _____ days

Days past contract completion date (excl. authorized time extensions): _____ days

2. Financial Data: Complete the table below using data from your most recent completed accounting fiscal year and most recent completed accounting fiscal quarter. (Bidder may be required to submit a financial statement upon request.).

Financial Ratios	Ratio Calculation	Previous Fiscal Year	Ratio 1	Most Recent Quarter	Ratio 2
Current Ratio	Current Assets	a	a / b	e	e / f
	Current Liabilities	b		f	
Debt Ratio	Total Debt	c	c / d	g	g / h
	Total Net Worth	d		h	

3. Licensing: Your License Number: _____ (Bidder must be a licensed contractor in California for the appropriate classification for the project being advertised.)

a. Has your license ever been revoked or suspended?

YES NO If yes, please explain (include dates, alleged misconduct, findings, and terms of the revocation or suspension).

b. Has a complaint ever been filed with the Contractor's State License Board against your company that required a formal hearing or inquiry?

YES NO If yes, provide explanation

c. Have you ever been licensed in California under a different name or license number?

YES NO If yes, provide name and/or license number.

Was that license ever revoked or suspended?

YES NO If yes, provide explanation

4. Safety: Has Cal OSHA, Federal OSHA, the EPA or any Air Quality Management District cited your firm in the past three (3) years?

YES NO If yes, attach a copy and description of each citation.

5. Arbitration and Litigation History: Has your firm had any claims, litigation, or disputes ending in mediation or arbitration, or termination for cause associated with any project (either by your company or against your company) in the past five (5) years?

YES NO If yes, attach a description of each instance including details of total claim amount, settlement amount and owner's name and phone number.

6. Prior Disqualifications, Criminal Matters, and Related Civil Suits:

a. Has your firm ever been disqualified from performing work for the Sacramento City Unified School District?

YES NO If yes, provide the following information:

Project name: _____

Date of disqualification: _____

Duration of disqualification: _____

Reason for disqualification: _____

b. Has your firm ever been disqualified from performing work for any contracting entity other than the Sacramento City Unified School District:

YES NO If yes, provide the following information:

Contracting Entity Name: _____

Date of disqualification: _____

Duration of disqualification: _____

Reason for disqualification: _____

c. Has your firm or any of its owners, officers or partners ever been found liable in a civil suit or found guilty in a criminal action for making any false claim or material misrepresentation to any public agency or entity?

YES NO If "yes," explain who was involved, the name of the public agency, the date of the investigation and the grounds for the finding.

d. Has your firm or any of its owners, officers or partners ever been convicted of a crime involving any federal, state, or local law related to construction work, fraud, theft, or other act of dishonesty?

YES NO If "yes," explain who was involved, the name of the public agency, the date of the conviction and the grounds for the conviction.

Questionnaire Certification

The undersigned declares under penalty of perjury that all information submitted in this questionnaire is current, true and accurate, and that this declaration was executed by the undersigned on:

(Date)

(Name and Title) printed or typed

(Signature)

(Firm Name)

OR

Previously Submitted Questionnaire Certification

(Questionnaires completed more than twelve (12) months before the current bid date are no longer valid)

The undersigned declares under penalty of perjury that all information previously submitted to the District remains to be complete, true, and correct, and that this declaration was executed by the undersigned on:

(Date)

(Name and Title) printed or typed

(Signature)

(Firm Name)

END OF DOCUMENT

AGREEMENT

THIS AGREEMENT IS MADE AND ENTERED INTO THIS _____ DAY OF _____
_____, 20____, by and between the Sacramento City Unified School District ("District") and _____
_____ ("Contractor")
("Agreement").

WITNESSETH: That the parties hereto have mutually covenanted and agreed, and by these presents do covenant and agree with each other, as follows:

1. **The Work:** Contractor agrees to 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:

Shade Structures at Various Sites Group 2A, 455-2A

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

It is understood and agreed that the Work shall be performed and completed as required in the Contract Documents including, without limitation, the Drawings and Specifications and submission of all documents required to secure funding or by the Division of the State Architect for close-out of the Project, under the direction and supervision of, and subject to the approval of, the District or its authorized representative.

2. **The Contract Documents:** The complete Contract consists of all Contract Documents as defined in the General Conditions and incorporated herein by this reference. Any and all obligations of the District and Contractor are fully set forth and described in the Contract Documents. All Contract Documents are intended to cooperate so that any Work called for in one and not mentioned in the other or vice versa is to be executed the same as if mentioned in all Contract Documents.
3. **Interpretation of Contract Documents:** Should any question arise concerning the intent or meaning of Contract Documents, including the Drawings or Specifications, the question shall be submitted to the District for interpretation. If a conflict exists in the Contract Documents, valid, written modifications, beginning with the most recent, shall control over this Agreement (if any), which shall control over the Special Conditions, which shall control over any Supplemental Conditions, which shall control over the General Conditions, which shall control over the remaining Division 0 documents, which shall control over Division 1 Documents which shall control over Division 2 through Division 49 documents, which shall control over figured dimensions, which shall control over large-scale drawings, which shall control over small-scale drawings. In the case of a 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 District with the functionally complete and operable Project described in the Drawings and Specifications. In no case shall a document calling for lower quality and/or quantity material or workmanship control. The decision of the District in the matter shall be final.

4. **Time for Completion:** It is hereby understood and agreed that the Work under this Contract shall be completed within **two hundred eight (208)** consecutive calendar days ("Contract Time") from the date specified in the District's Notice to Proceed.
5. **Completion - Extension of Time:** Should the Contractor fail to complete this Contract, and the Work provided herein, within the time fixed for completion, due allowance being made for the contingencies provided for herein, the Contractor shall become liable to the District for all loss and damage that the District may suffer on account thereof. The Contractor shall coordinate its Work with the Work of all other contractors. The District shall not be liable for delays resulting from Contractor's failure to coordinate its Work with other contractors in a manner that will allow 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.
6. **Liquidated Damages:** Time is of the essence for all work under this Agreement. It is hereby understood and agreed that it is and will be difficult and/or impossible to ascertain and determine the actual damage that the District will sustain in the event of and by reason of Contractor's delay; therefore, Contractor agrees that it shall pay to the District the sum of **Two Thousand and No/100 dollars (\$2,000)** per day as liquidated damages for each and every day's delay beyond the time herein prescribed in completion of the Work.

It is hereby understood and agreed that this amount is not a penalty.

In the event that any portion of the liquidated damages is not paid to the District, the District may deduct that amount from any money due or that may become due the Contractor under this Agreement, and such deduction does not constitute a withholding or penalty. The District's right to assess liquidated damages is as indicated herein and in the General Conditions.

The time during which the Contract is delayed for cause, as hereinafter specified, may extend the time of completion for a reasonable time as the District may grant, provided that Contractor has complied with the claims procedure of the Contract Documents. This provision does not exclude the recovery of damages by either party under other provisions in the Contract Documents.

7. **Loss Or Damage:** The District and its agents and authorized representatives shall not in any way or manner be answerable or suffer loss, damage, expense, or liability for any loss or damage that may happen to the Work, or any part thereof, or in or about the same during its construction and before acceptance, and the Contractor shall assume all liabilities of every kind or nature arising from the Work, either by accident, negligence, theft, vandalism, or any cause whatsoever; and shall hold the District and its agents and authorized representatives harmless from all liability of every kind and nature arising from accident, negligence, or any cause whatsoever.
8. **Limitation Of District Liability:** District's financial obligations under this Contract shall be limited to the payment of the compensation provided in this Contract. Notwithstanding any other provision of this Contract, in no event shall District be liable, regardless of whether any claim is based on contract or tort, for any special, consequential, indirect or incidental damages, including, but not limited to, lost profits or revenue, lost bonding capacity, arising out of or in connection with this Contract for the services performed in connection with this Contract.

9. **Insurance and Bonds:** Prior to issuance of the Notice to Proceed by the District, Contractor shall provide all required certificates of insurance, insurance endorsements, and payment and performance bonds as evidence thereof.
10. **Prosecution of Work:** If the Contractor should neglect to prosecute the Work properly or fail to perform any provisions of this Contract, the District, may, pursuant to the General Conditions and 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.
11. **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 ("DSA") have authority to approve and/or suspend Work if the 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 and regulations. The Contractor shall be liable for any delay caused by its non-compliant Work.
12. **Assignment of Contract:** Neither the Contract, nor any part thereof, nor any moneys due or to become due thereunder, may be assigned by the Contractor without the prior written approval of the District, nor without the written consent of the Surety on the Contractor's Performance Bond (the "Surety"), unless the Surety has waived in writing its right to notice of assignment.
13. **Classification of Contractor's License:** Contractor hereby acknowledges that it currently holds valid Type **A or B** Contractor's license(s) issued by the State of California, Contractors' State License Board, in accordance with division 3, chapter 9, of the Business and Professions Code and in the classification called for in the Contract Documents.
14. **Registration as Public Works Contractor:** The Contractor and all Subcontractors currently are registered as public works contractors with the Department of Industrial Relations, State of California, in accordance with Labor Code section 1771.1.
15. **Payment of Prevailing Wages:** The Contractor and all Subcontractors shall pay all workers on all 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 District, pursuant to sections 1770 et seq. of the California Labor Code. The Contractor and all Subcontractors shall comply with the Davis Bacon Act, applicable reporting requirements, and any other applicable requirements for federal funding. If a conflict exists, the more stringent provision shall control over this Agreement.
16. **Labor Compliance Monitoring and Enforcement:** This Project is subject to labor compliance monitoring and enforcement by the Department of Industrial Relations pursuant to Labor Code section 1771.4 and Title 8 of the California Code of Regulations. Contractor specifically acknowledges and understands that it shall perform the Work of this Agreement while complying with all the applicable provisions of Division 2, Part 7, Chapter 1, of the Labor Code, including, without limitation, the requirement that the Contractor and all of its Subcontractors shall

timely submit complete and accurate electronic certified payroll records as required by the Contract Documents, or the District may not issue payment.

17. **Contract Price:** In consideration of the foregoing covenants, promises, and agreements on the part of the Contractor, and the strict and literal fulfillment of each and every covenant, promise, and agreement, and as compensation agreed upon for the Work and construction, erection, and completion as aforesaid, the District covenants, promises, and agrees that it will well and truly pay and cause to be paid to the Contractor in full, and as the full Contract Price and compensation for construction, erection, and completion of the Work hereinabove agreed to be performed by the Contractor, the following price:

_____ Dollars
(\$ _____),

in lawful money of the United States, which sum is to be paid according to the schedule provided by the Contractor and accepted by the District and subject to additions and deductions as provided in the Contract. This amount supersedes any previously stated and/or agreed to amount(s).

18. **No Representations:** No representations have been made other than as set forth in writing in the Contract Documents, including this Agreement. Each of the Parties to this Agreement warrants that it has carefully read and understood the terms and conditions of this Agreement and all Contract Documents, and that it has not relied upon the representations or advice of any other Party or any attorney not its own.
19. **Entire Agreement:** The Contract Documents, including this Agreement, set forth the entire agreement between the parties hereto and fully supersede any and all prior agreements, understandings, written or oral, between the parties hereto pertaining to the subject matter thereof.
20. **Severability:** If any term, covenant, condition, or provision in any 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.
21. **Authority of Signatories:** Each party has the full power and authority to enter into and perform this Contract, and the person signing this Contract on behalf of each party has been properly authorized and empowered to enter into this Contract. This Contract may be executed in one or more counterparts, each of which shall be deemed an original. For this Agreement, and for all Contract Documents requiring a signature, a facsimile or electronic signature shall be deemed to be the equivalent of the actual original signature. All counterparts so executed shall constitute one Contract binding all the Parties hereto.

[SIGNATURES ON FOLLOWING PAGE]

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

[CONTRACTOR NAME]

SACRAMENTO CITY UNIFIED SCHOOL DISTRICT

By: _____

By: Rose F. Ramos

Title: _____

Title: Chief Business and Operation Office

NOTE: If the party executing this Contract is a corporation, a certified copy of the by-laws, or of the resolution of the Board of Directors, authorizing the officers of said corporation to execute the Contract and the bonds required thereby must be attached hereto.

END OF DOCUMENT

SUMMARY OF WORK

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, Site Access Conditions and Requirements.
- B. Special Conditions.

1.02 SUMMARY OF WORK COVERED BY CONTRACT DOCUMENTS

- A. The Work of this Contract consists of the following:

Selective demolition and construction necessary for the Installation of a PC Shade Structure, installation of a concrete pad (where required), upgrades to accessible path of travel and restrooms, and related site and electrical work.

Included:

1. Furnish and install all labor, material and equipment for all Work shown and/or specified in accordance with the Contract Documents, except as excluded below.
2. This scope of work Section 1.02 also applies to all applicable awarded alternates.
3. Information provided under "Also Included" points out some items which may be considered less obvious or "unconventional", but which are included in the Scope of Work.
4. This Bid Package Description is intended to clarify scope to the Contractor, but is in no way intended to limit scope that is reasonable inferable as being required by the Work included in this description. Work required under the Bid Package may be shown as specified anywhere in the Contract Documents.

Also Included:

1. Weather protection during the course of construction
2. Temporary barricades, signs, pedestrian protection, temporary facilities, and traffic control Work.
3. Daily and Final Clean-up.
4. Qualified/Certified Technicians must perform the replacement and/or repair of all landscape, irrigation asphalt/concrete surfaces and above or below grade utilities disturbed during construction, and the District must be given the opportunity to test and accept the Work prior to covering it up.
5. Patching, repairing, painting and/or replacement of all finished surfaces disturbed during construction.

6. Provide temporary means of operation for existing storm, water, sewer, gas, mechanical, electrical, and low voltage systems during construction.
7. A full-time superintendent shall be provided.
8. All demolition and removal and/or replacement of Work associated with this Bid Package.
9. Asbestos abatement and work associated with this Bid Package
10. Lead abatement and surface preparation associated with this Bid Package.
11. Assume all paint contains lead and provide properly trained and certified workers as required.
12. Contractor to provide its own water for its grading activities. Onsite water (hose bibs) will not be sufficient for grading activities.
13. Owner Furnished, Contractor Installed Shade Structures will be delivered to the site. Deliveries anticipated to start 10/10/22. Contractor will be responsible for off-loading of OFCI materials.
14. Contractor is responsible for storage, security and erection of the shade structures which may require some field modifications.
15. Contractor shall include all costs for this work including, but not limited to separate mobilizations as schedule and shade structure deliveries require.
16. Contractor shall assume Swing Shift work for installation of Shade Structures during OFCI Shade Structure Install Phase.
17. Owner Furnished, Contractor installed Shade Structure Anchor Bolts and Templates will be available for Contractor pick-up during the Summer, Site Adaptation Phase from Sac City USD storage site TBD. Bolts and Templates will be ~90 lbs. for each site and packed on individual 6'pallets.
18. Contractor is responsible for temporary fencing during both the Summer, Site Adaptation Phase and Fall, OFCI Shade Structure Install Phase of work. More detail can be found on the site logistics plans for each site. (Exhibit A)

1.03 CONTRACTS

- A. Perform the Work under a single, fixed-price Contract.

1.04 WORK BY OTHERS

- A. Work on the Project that will be performed and completed prior to the start of the Work of this Contract: N/A
- B. Work on the Project that will be performed by others concurrent with the Work of this Contract:

1.05 CODES, REGULATIONS, AND STANDARDS

- A. The codes, regulations, and standards adopted by the state and federal agencies having jurisdiction shall govern minimum requirements for this Project. Where codes, regulations, and standards conflict with the Contract Documents, these conflicts shall be brought to the immediate attention of the District and the Architect.

- B. Codes, regulations, and standards shall be as published effective as of date of bid opening, unless otherwise specified or indicated.

1.06 PROJECT RECORD DOCUMENTS

- A. Contractor shall maintain on Site one set of the following record documents; Contractor shall record actual revisions to the Work:
 - (1) Contract Drawings.
 - (2) Specifications.
 - (3) Addenda.
 - (4) Change Orders and other modifications to the Contract.
 - (5) Reviewed shop drawings, product data, and samples.
 - (6) Field test records.
 - (7) Inspection certificates.
 - (8) Manufacturer's certificates.
- B. Contractor shall store Record Documents separate from documents used for construction. Provide files, racks, and secure storage for Record Documents and samples.
- C. Contractor shall record information concurrent with construction progress.
- D. Specifications: Contractor shall legibly mark and record at each product section of the Specifications the description of the actual product(s) installed, including the following:
 - (1) Manufacturer's name and product model and number.
 - (2) Product substitutions or alternates utilized.
 - (3) Changes made by Addenda and Change Orders and written directives.

1.07 EXAMINATION OF EXISTING CONDITIONS

- A. Contractor shall be held to have examined the Project Site and acquainted itself with the conditions of the Site and of the streets or roads approaching the Site.
- B. 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.
- C. 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 District and the Architect.

1.08 CONTRACTOR'S USE OF PREMISES

- A. If unoccupied and only with District'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 District chooses to beneficially occupy any building(s), Contractor must obtain the District'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.
- B. 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.
- C. Contractor shall not interfere with use of or access to occupied portions of the building(s) or adjacent property.
- D. Contractor shall maintain corridors, stairs, halls, and other exit-ways of building clear and free of debris and obstructions at all times.
- E. No one other than those directly involved in the demolition and construction, or specifically designated by the District or the Architect shall be permitted in the areas of work during demolition and construction activities.
- F. The Contractor shall install the construction fence and maintain that it will be locked when not in use. Keys to this fencing will be provided to the District.

1.09 PROTECTION OF EXISTING STRUCTURES AND UTILITIES

- A. 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 District's satisfaction.
- B. 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 District for disposition of same as indicated in the General Conditions.

1.10 UTILITY SHUTDOWNS AND INTERRUPTIONS

- A. Contractor shall give the District a minimum of three (3) days written notice in advance of any need to shut off existing utility services or to effect equipment interruptions. The District 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.

- B. Contractor shall obtain District's written approval as indicated in the General Conditions in advance of deliveries of material or equipment or other activities that may conflict with District's use of the building(s) or adjacent facilities.

1.11 STRUCTURAL INTEGRITY

- A. Contractor shall be responsible for and supervise each operation and work that could affect structural integrity of various building elements, both permanent and temporary.
- B. Contractor shall include structural connections and fastenings as indicated or required for complete performance of the Work.

PART 2 – PRODUCTS Not Used.

PART 3 – EXECUTION Not Used.

END OF DOCUMENT

SCHEDULING OF WORK

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;
- B. Special Conditions;
- C. Summary of Work; and
- D. Submittals.

1.02 SECTION INCLUDES

- A. Scheduling of Work under this Contract shall be performed by Contractor in accordance with requirements of this Section.
 - (1) Development of schedule, cost and resource loading of the schedule, monthly payment requests, and project status reporting requirements of the Contract shall employ computerized Critical Path Method ("CPM") scheduling ("CPM Schedule").
 - (2) CPM Schedule shall be cost loaded based on Schedule of Values as approved by District.
 - (3) Submit schedules and reports as specified in the General Conditions.
- B. Upon Award of Contract, Contractor shall immediately commence development of Initial and Original CPM Schedules to ensure compliance with CPM Schedule submittal requirements.

1.03 CONSTRUCTION SCHEDULE

- A. Within ten (10) days of issuance of the Notice to Proceed and before request for first progress payment, the Contractor shall prepare and submit to the Project Manager a construction progress schedule conforming to the Milestone Schedule below.
- B. The Construction Schedule shall be continuously updated, and an updated schedule shall be submitted with each application for progress payment. Each revised schedule shall indicate the work actually accomplished during the previous period and the schedule for completion of the remaining work.

C. Milestone Schedule:

Preliminary Construction Schedule

Anticipated Notice of Intent to Award (NOITA)	05/18/22
Anticipated Board Approval of Construction Contract	06/02/22
Anticipated Notice to Proceed (NTP)	06/06/22
Shop Drawings, Submittals, Materials Procurement	06/07/22 – 06/24/22

Site Construction Schedule

Anticipated Last Day of 2022 School	06/24/22
Mobilization and Start of Construction	06/27/22
Site-Adaption Construction Phase Work prior to install of Shade Structures to include, but not limited to HAZMAT Remediation, Utilities, Electrical Rough-in, ADA improvements, concrete footings with anchor bolt install & pads. Contractor required to arrange and coordinate for their pick-up of OFCI anchor bolts and templates from Sac City USD Storage Site to be determined.	06/27/22 – 8/19/22
Site Adaptation Phase Punch & Corrective work	8/20/22 – 8/24/22
Milestone Completion Date of All Site Adaptation Work	8/25/2022
First Day of 2022-23 School	8/25/22
Anticipated Shipments of OFCI Shade Structures	10/10/22 – 10/28/22
Start of OFCI Shade Structure Install Phase Swing Shift Hours	At Time of Delivery
Install timeframe for each Structure: Unless given authorization by District. Priority of install at sites with locations affecting students: First Installs: Caroline Wenzel ES and Leonardi Da Vinci K-8 School Second Installs: Hollywood Park ES and John H. Still ES	No more than 5 days
Anticipated Punch List, Corrective Work & Final Cleaning Project Time of Completion	11/7/22 – 11/25/22 12/30/22

1.04 QUALIFICATIONS

A. Contractor shall employ experienced scheduling personnel qualified to use the latest version of [i.e., Primavera Project Planner]. Experience level required is set forth below. Contractor may employ such personnel directly or may employ a consultant for this purpose.

- (1) The written statement shall identify the individual who will perform CPM scheduling.
 - (2) Capability and experience shall be verified by description of construction projects on which individual has successfully applied computerized CPM.
 - (3) Required level of experience shall include at least two (2) projects of similar nature and scope with value not less than three fourths ($\frac{3}{4}$) of the Total Bid Price of this Project. The written statement shall provide contact persons for referenced projects with current telephone and address information.
- B. District reserves the right to approve or reject Contractor's scheduler or consultant at any time. District reserves the right to refuse replacing of Contractor's scheduler or consultant, if District believes replacement will negatively affect the scheduling of Work under this Contract.

1.05 GENERAL

- A. Progress Schedule shall be based on and incorporate milestone and completion dates specified in Contract Documents.
- B. Overall time of completion and time of completion for each milestone shown on Progress Schedule shall adhere to times in the Contract, unless an earlier (advanced) time of completion is requested by Contractor and agreed to by District. Any such agreement shall be formalized by a Change Order.
- (1) District is not required to accept an early completion schedule, i.e., one that shows an earlier completion date than the Contract Time.
 - (2) Contractor shall not be entitled to extra compensation in event agreement is reached on an earlier completion schedule and Contractor completes its Work, for whatever reason, beyond completion date shown in its early completion schedule but within the Contract Time.
 - (3) A schedule showing the work completed in less than the Contract Time, and that has been accepted by District, shall be considered to have Project Float. The Project Float is the time between the scheduled completion of the work and the Completion Date. Project Float is a resource available to both District and the Contractor.
- C. Ownership Project Float: Neither the District nor Contractor owns Project Float. The Project owns the Project Float. As such, liability for delay of the Completion Date rests with the party whose actions, last in time, actually cause delay to the Completion Date.
- (1) For example, if Party A uses some, but not all of the Project Float and Party B later uses remainder of the Project Float as well as additional time beyond the Project Float, Party B shall be liable for the time that represents a delay to the Completion Date.

- (2) Party A would not be responsible for the time since it did not consume the entire Project Float and additional Project Float remained; therefore, the Completion Date was unaffected by Party A.
- D. Progress Schedule shall be the basis for evaluating job progress, payment requests, and time extension requests. Responsibility for developing Contract CPM Schedule and monitoring actual progress as compared to Progress Schedule rests with Contractor.
- E. Failure of Progress Schedule to include any element of the Work, or any inaccuracy in Progress Schedule, will not relieve Contractor from responsibility for accomplishing the Work in accordance with the Contract. District's acceptance of schedule shall be for its use in monitoring and evaluating job progress, payment requests, and time extension requests and shall not, in any manner, impose a duty of care upon District, or act to relieve Contractor of its responsibility for means and methods of construction.
- F. Software: Use **District Preferred Project Planning Software**. Such software shall be compatible with Windows operating system. Contractor shall transmit contract file to District on compact disk at times requested by District.
- G. Transmit each item under the form approved by District.
 - (1) Identify Project with District Contract number and name of Contractor.
 - (2) Provide space for Contractor's approval stamp and District's review stamps.
 - (3) Submittals received from sources other than Contractor will be returned to the Contractor without District's review.

1.06 INITIAL CPM SCHEDULE

- A. Initial CPM Schedule submitted for review at the pre-construction conference shall serve as Contractor's schedule for up to ninety (90) calendar days after the Notice to Proceed.
- B. Indicate detailed plan for the Work to be completed in first ninety (90) days of the Contract; details of planned mobilization of plant and equipment; sequence of early operations; procurement of materials and equipment. Show Work beyond ninety (90) calendar days in summary form.
- C. Initial CPM Schedule shall be time scaled.
- D. Initial CPM Schedule shall be cost and resource loaded. Accepted cost and resource loaded schedule will be used as basis for monthly progress payments until acceptance of the Original CPM Schedule. Use of Initial CPM Schedule for progress payments shall not exceed ninety (90) calendar days.
- E. District and Contractor shall meet to review and discuss the Initial CPM Schedule within seven (7) calendar days after it has been submitted to District.

- (1) District's review and comment on the schedule shall be limited to Contract conformance (with sequencing, coordination, and milestone requirements).
 - (2) Contractor shall make corrections to schedule necessary to comply with Contract requirements and shall adjust schedule to incorporate any missing information requested by District. Contractor shall resubmit Initial CPM Schedule if requested by District.
- F. If, during the first ninety (90) days after Notice to Proceed, the Contractor is of the opinion that any of the Work included on its Initial CPM Schedule has been impacted, the Contractor shall submit to District a written Time Impact Evaluation ("TIE") in accordance with Article 1.12 of this Section. The TIE shall be based on the most current update of the Initial CPM Schedule.

1.07 ORIGINAL CPM SCHEDULE

- A. Submit a detailed proposed Original CPM Schedule presenting an orderly and realistic plan for completion of the Work in conformance with requirements as specified herein.
- B. Progress Schedule shall include or comply with following requirements:
- (1) Time scaled, cost and resource (labor and major equipment) loaded CPM schedule.
 - (2) No activity on schedule shall have duration longer than fifteen (15) work days, with exception of submittal, approval, fabrication and procurement activities, unless otherwise approved by District.
 - (a) Activity durations shall be total number of actual work days required to perform that activity.
 - (3) The start and completion dates of all items of Work, their major components, and milestone completion dates, if any.
 - (4) District furnished materials and equipment, if any, identified as separate activities.
 - (5) Activities for maintaining Project Record Documents.
 - (6) Dependencies (or relationships) between activities.
 - (7) Processing/approval of submittals and shop drawings for all material and equipment required per the Contract. Activities that are dependent on submittal acceptance or material delivery shall not be scheduled to start earlier than expected acceptance or delivery dates.
 - (a) Include time for submittals, re-submittals and reviews by District. Coordinate with accepted schedule for submission of Shop Drawings, samples, and other submittals.

- (b) Contractor shall be responsible for all impacts resulting from re-submittal of Shop Drawings and submittals.
- (8) Procurement of major equipment, through receipt and inspection at jobsite, identified as separate activity.
 - (a) Include time for fabrication and delivery of manufactured products for the Work.
 - (b) Show dependencies between procurement and construction.
- (9) Activity description; what Work is to be accomplished and where.
- (10) The total cost of performing each activity shall be total of labor, material, and equipment, excluding overhead and profit of Contractor. Overhead and profit of the General Contractor shall be shown as a separate activity in the schedule. Sum of cost for all activities shall equal total Contract value.
- (11) Resources required (labor and major equipment) to perform each activity.
- (12) Responsibility code for each activity corresponding to Contractor or Subcontractor responsible for performing the Work.
- (13) Identify the activities which constitute the controlling operations or critical path. No more than twenty-five (25%) of the activities shall be critical or near critical. Near critical is defined as float in the range of one (1) to (10) days.
- (14) Twenty (20) workdays for developing punch list(s), completion of punch-list items, and final clean up for the Work or any designated portion thereof. No other activities shall be scheduled during this period.
- (15) Interface with the work of other contractors, District, and agencies such as, but not limited to, utility companies.
- (16) Show detailed Subcontractor Work activities. In addition, furnish copies of Subcontractor schedules upon which CPM was built.
 - (a) Also furnish for each Subcontractor, as determined by District, submitted on Subcontractor letterhead, a statement certifying that Subcontractor concurs with Contractor's Original CPM Schedule and that Subcontractor's related schedules have been incorporated, including activity duration, cost and resource loading.
 - (b) Subcontractor schedules shall be independently derived and not a copy of Contractor's schedule.
 - (c) In addition to Contractor's schedule and resource loading, obtain from electrical, mechanical, and plumbing

Subcontractors, and other Subcontractors as required by District, productivity calculations common to their trades, such as units per person day, feet of pipe per day per person, feet of wiring per day per person, and similar information.

- (d) Furnish schedule for Contractor/Subcontractor CPM schedule meetings which shall be held prior to submission of Original CPM schedule to District. District shall be permitted to attend scheduled meetings as an observer.
 - (17) Activity durations shall be in Work days.
 - (18) Submit with the schedule a list of anticipated non-Work days, such as weekends and holidays. The Progress Schedule shall exclude in its Work day calendar all non-Work days on which Contractor anticipates critical Work will not be performed.
- C. Original CPM Schedule Review Meeting: Contractor shall, within sixty (60) days from the Notice to Proceed date, meet with District to review the Original CPM Schedule submittal.
- (1) Contractor shall have its Project Manager, Project Superintendent, Project Scheduler, and key Subcontractor representatives, as required by District, in attendance. The meeting will take place over a continuous one (1) day period.
 - (2) District's review will be limited to submittal's conformance to Contract requirements including, but not limited to, coordination requirements. However, review may also include:
 - (a) Clarifications of Contract Requirements.
 - (b) Directions to include activities and information missing from submittal.
 - (c) Requests to Contractor to clarify its schedule.
 - (3) Within five (5) days of the Schedule Review Meeting, Contractor shall respond in writing to all questions and comments expressed by District at the Meeting.

1.08 ADJUSTMENTS TO CPM SCHEDULE

- A. Adjustments to Original CPM Schedule: Contractor shall have adjusted the Original CPM Schedule submittal to address all review comments from original CPM Schedule review meeting and resubmit network diagrams and reports for District's review.
- (1) District, within ten (10) days from date that Contractor submitted the revised schedule, will either:
 - (a) Accept schedule and cost and resource loaded activities as submitted, or

- (b) Advise Contractor in writing to review any part or parts of schedule which either do not meet Contract requirements or are unsatisfactory for District to monitor Project's progress, resources, and status or evaluate monthly payment request by Contractor.
 - (2) District may accept schedule with conditions that the first monthly CPM Schedule update be revised to correct deficiencies identified.
 - (3) When schedule is accepted, it shall be considered the "Original CPM Schedule" which will then be immediately updated to reflect the current status of the work.
 - (4) District reserves right to require Contractor to adjust, add to, or clarify any portion of schedule which may later be discovered to be insufficient for monitoring of Work or approval of partial payment requests. No additional compensation will be provided for such adjustments, additions, or clarifications.
- B. Acceptance of Contractor's schedule by District will be based solely upon schedule's compliance with Contract requirements.
- (1) By way of Contractor assigning activity durations and proposing sequence of Work, Contractor agrees to utilize sufficient and necessary management and other resources to perform work in accordance with the schedule.
 - (2) Upon submittal of schedule update, updated schedule shall be considered "current" CPM Schedule.
 - (3) Submission of Contractor's schedule to District shall not relieve Contractor of total responsibility for scheduling, sequencing, and pursuing Work to comply with requirements of Contract Documents, including adverse effects such as delays resulting from ill-timed Work.
- C. Submittal of Original CPM Schedule, and subsequent schedule updates, shall be understood to be Contractor's representation that the Schedule meets requirements of Contract Documents and that Work shall be executed in sequence indicated on the schedule.
- D. Contractor shall distribute Original CPM Schedule to Subcontractors for review and written acceptance, which shall be noted on Subcontractors' letterheads to Contractor and transmitted to District for the record.

1.09 MONTHLY CPM SCHEDULE UPDATE SUBMITTALS

- A. Following acceptance of Contractor's Original CPM Schedule, Contractor shall monitor progress of Work and adjust schedule each month to reflect actual progress and any anticipated changes to planned activities.
 - (1) Each schedule update submitted shall be complete, including all information requested for the Original CPM Schedule submittal.

- (2) Each update shall continue to show all Work activities including those already completed. These completed activities shall accurately reflect "as built" information by indicating when activities were actually started and completed.
- B. A meeting will be held on approximately the twenty-fifth (25th) of each month to review the schedule update submittal and progress payment application.
 - (1) At this meeting, at a minimum, the following items will be reviewed: Percent (%) complete of each activity; Time Impact Evaluations for Change Orders and Time Extension Request; actual and anticipated activity sequence changes; actual and anticipated duration changes; and actual and anticipated Contractor delays.
 - (2) These meetings are considered a critical component of overall monthly schedule update submittal and Contractor shall have appropriate personnel attend. At a minimum, these meetings shall be attended by Contractor's General Superintendent and Scheduler.
 - (3) Contractor shall plan on the meeting taking no less than four (4) hours.
- C. Within five (5) working days after monthly schedule update meeting, Contractor shall submit the updated CPM Schedule update.
- D. Within five (5) work days of receipt of above noted revised submittals, District will either accept or reject monthly schedule update submittal.
 - (1) If accepted, percent (%) complete shown in monthly update will be basis for Application for Payment by the Contractor. The schedule update shall be submitted as part of the Contractor's Application for Payment.
 - (2) If rejected, update shall be corrected and resubmitted by Contractor before the Application for Payment is submitted.
- E. Neither updating, changing or revising of any report, curve, schedule, or narrative submitted to District by Contractor under this Contract, nor District's review or acceptance of any such report, curve, schedule or narrative shall have the effect of amending or modifying in any way the Completion Date or milestone dates or of modifying or limiting in any way Contractor's obligations under this Contract.

1.10 SCHEDULE REVISIONS

- A. Updating the Schedule to reflect actual progress shall not be considered revisions to the Schedule. Since scheduling is a dynamic process, revisions to activity durations and sequences are expected on a monthly basis.
- B. To reflect revisions to the Schedule, the Contractor shall provide District with a written narrative with a full description and reasons for each Work activity revised. For revisions affecting the sequence of work, the Contractor shall

provide a schedule diagram which compares the original sequence to the revised sequence of work. The Contractor shall provide the written narrative and schedule diagram for revisions two (2) working days in advance of the monthly schedule update meeting.

- C. Schedule revisions shall not be incorporated into any schedule update until the revisions have been reviewed by District. District may request further information and justification for schedule revisions and Contractor shall, within three (3) days, provide District with a complete written narrative response to District's request.
- D. If the Contractor's revision is still not accepted by District, and the Contractor disagrees with District's position, the Contractor has seven (7) calendar days from receipt of District's letter rejecting the revision to provide a written narrative providing full justification and explanation for the revision. The Contractor's failure to respond in writing within seven (7) calendar days of District's written rejection of a schedule revision shall be contractually interpreted as acceptance of District's position, and the Contractor waives its rights to subsequently dispute or file a claim regarding District's position.
- E. At District's discretion, the Contractor can be required to provide Subcontractor certifications of performance regarding proposed schedule revisions affecting said Subcontractors.

1.11 RECOVERY SCHEDULE

- A. If the Schedule Update shows a completion date twenty-one (21) calendar days beyond the Contract Completion Date, or individual milestone completion dates, the Contractor shall submit to District the proposed revisions to recover the lost time within seven (7) calendar days. As part of this submittal, the Contractor shall provide a written narrative for each revision made to recapture the lost time. If the revisions include sequence changes, the Contractor shall provide a schedule diagram comparing the original sequence to the revised sequence of work.
- B. The revisions shall not be incorporated into any schedule update until the revisions have been reviewed by District.
- C. If the Contractor's revisions are not accepted by District, District and the Contractor shall follow the procedures in paragraph 1.09.C, 1.09.D and 1.09.E above.
- D. At District's discretion, the Contractor can be required to provide Subcontractor certifications for revisions affecting said Subcontractors.

1.12 TIME IMPACT EVALUATION ("TIE") FOR CHANGE ORDERS, AND OTHER DELAYS

- A. When Contractor is directed to proceed with changed Work, the Contractor shall prepare and submit within fourteen (14) calendar days from the Notice to Proceed a TIE which includes both a written narrative and a schedule diagram depicting how the changed Work affects other schedule activities. The schedule diagram shall show how the Contractor proposes to incorporate

the changed Work in the schedule and how it impacts the current schedule-update critical path. The Contractor is also responsible for requesting time extensions based on the TIE's impact on the critical path. The diagram must be tied to the main sequence of schedule activities to enable District to evaluate the impact of changed Work to the scheduled critical path.

- B. Contractor shall be required to comply with the requirements of Paragraph 1.09.A for all types of delays such as, but not limited to, Contractor/Subcontractor delays, adverse weather delays, strikes, procurement delays, fabrication delays, etc.
- C. Contractor shall be responsible for all costs associated with the preparation of TIEs, and the process of incorporating them into the current schedule update. The Contractor shall provide District with four (4) copies of each TIE.
- D. Once agreement has been reached on a TIE, the Contract Time will be adjusted accordingly. If agreement is not reached on a TIE, the Contract Time may be extended in an amount District allows, and the Contractor may submit a claim for additional time claimed by contractor.

1.13 TIME EXTENSIONS

- A. The Contractor is responsible for requesting time extensions for time impacts that, in the opinion of the Contractor, impact the critical path of the current schedule update. Notice of time impacts shall be given in accord with the General Conditions.
- B. Where an event for which District is responsible impacts the projected Completion Date, the Contractor shall provide a written mitigation plan, including a schedule diagram, which explains how (e.g., increase crew size, overtime, etc.) the impact can be mitigated. The Contractor shall also include a detailed cost breakdown of the labor, equipment, and material the Contractor would expend to mitigate District-caused time impact. The Contractor shall submit its mitigation plan to District within fourteen (14) calendar days from the date of discovery of the impact. The Contractor is responsible for the cost to prepare the mitigation plan.
- C. Failure to request time, provide TIE, or provide the required mitigation plan will result in Contractor waiving its right to a time extension and cost to mitigate the delay.
- D. No time will be granted under this Contract for cumulative effect of changes.
- E. District will not be obligated to consider any time extension request unless the Contractor complies with the requirements of Contract Documents.
- F. Failure of the Contractor to perform in accordance with the current schedule update shall not be excused by submittal of time extension requests.
- G. If the Contractor does not submit a TIE within the required fourteen (14) calendar days for any issue, it is mutually agreed that the Contractor does not require a time extension for said issue.

1.14 SCHEDULE REPORTS

- A. Submit four (4) copies of the following reports with the Initial CPM Schedule, the Original CPM Schedule, and each monthly update.
- B. Required Reports:
 - (1) Two activity listing reports: one sorted by activity number and one by total Project Float. These reports shall also include each activity's early/late and actual start and finish dates, original and remaining duration, Project Float, responsibility code, and the logic relationship of activities.
 - (2) Cost report sorted by activity number including each activity's associated cost, percentage of Work accomplished, earned value- to date, previous payments, and amount earned for current update period.
 - (3) Schedule plots presenting time-scaled network diagram showing activities and their relationships with the controlling operations or critical path clearly highlighted.
 - (4) Cash flow report calculated by early start, late start, and indicating actual progress. Provide an exhibit depicting this information in graphic form.
 - (5) Planned versus actual resource (i.e., labor) histogram calculated by early start and late start.
- C. Other Reports:

In addition to above reports, District may request, from month to month, any two of the following reports. Submit four (4) copies of all reports.

- (1) Activities by early start.
 - (2) Activities by late start.
 - (3) Activities grouped by Subcontractors or selected trades.
 - (4) Activities with scheduled early start dates in a given time frame, such as fifteen (15) or thirty (30) day outlook.
- D. Furnish District with report files on compact disks containing all schedule files for each report generated.

1.15 PROJECT STATUS REPORTING

- A. In addition to submittal requirements for CPM scheduling identified in this Section, Contractor shall provide a monthly project status report (i.e., written narrative report) to be submitted in conjunction with each CPM Schedule as specified herein. Status reporting shall be in form specified below.

- B. Contractor shall prepare monthly written narrative reports of status of Project for submission to District. Written status reports shall include:
- (1) Status of major Project components (percent (%) complete, amount of time ahead or behind schedule) and an explanation of how Project will be brought back on schedule if delays have occurred.
 - (2) Progress made on critical activities indicated on CPM Schedule.
 - (3) Explanations for any lack of work on critical path activities planned to be performed during last month.
 - (4) Explanations for any schedule changes, including changes to logic or to activity durations.
 - (5) List of critical activities scheduled to be performed next month.
 - (6) Status of major material and equipment procurement.
 - (7) Any delays encountered during reporting period.
 - (8) Contractor shall provide printed report indicating actual versus planned resource loading for each trade and each activity. This report shall be provided on weekly and monthly basis.
 - (a) Actual resource shall be accumulated in field by Contractor, and shall be as noted on Contractor's daily reports. These reports will be basis for information provided in computer-generated monthly and weekly printed reports.
 - (b) Contractor shall explain all variances and mitigation measures.
 - (9) Contractor may include any other information pertinent to status of Project. Contractor shall include additional status information requested by District at no additional cost.
 - (10) Status reports, and the information contained therein, shall not be construed as claims, notice of claims, notice of delay, or requests for changes or compensation.

1.16 WEEKLY SCHEDULE REPORT

At the Weekly Progress Meeting, the Contractor shall provide and present a time-scaled three (3) week look-ahead schedule that is based and correlated by activity number to the current schedule (i.e., Initial, Original CPM, or Schedule Update).

1.17 DAILY CONSTRUCTION REPORTS

On a daily basis, Contractor shall submit a daily activity report to District for each workday, including weekends and holidays when worked. Contractor shall develop the daily construction reports on a computer-generated database capable of sorting daily Work, manpower, and man-hours by Contractor, Subcontractor, area, sub-area, and Change Order Work. Upon request of District, furnish computer disk of this

data base. Obtain District's written approval of daily construction report data base format prior to implementation. Include in report:

- A. Project name and Project number.
- B. Contractor's name and address.
- C. Weather, temperature, and any unusual site conditions.
- D. Brief description and location of the day's scheduled activities and any special problems and accidents, including Work of Subcontractors. Descriptions shall be referenced to CPM scheduled activities.
- E. Worker quantities for its own Work force and for Subcontractors of any tier.
- F. Equipment, other than hand tools, utilized by Contractor and Subcontractors.

1.18 PERIODIC VERIFIED REPORTS

Contractor shall complete and verify construction reports on a form prescribed by the Division of the State Architect and file reports on the first day of February, May, August, and November during the preceding quarter year; at the completion of the Contract; at the completion of the Work; at the suspension of Work for a period of more than one (1) month; whenever the services of Contractor or any of Contractor's Subcontractors are terminated for any reason; and at any time a special verified report is required by the Division of the State Architect. Refer to section 4-336 and section 4-343 of Part 1, Title 24 of the California Code of Regulations.

PART 2 – PRODUCTS Not Used.

PART 3 - EXECUTION Not Used.

END OF DOCUMENT

QUALITY CONTROL

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, Inspector, Inspections and Tests, Uncovering of Work and Non-conforming of Work and Correction of Work;
- B. Special Conditions.

1.02 RELATED CODES:

- A. The Work is governed by requirements of Title 24, California Code of Regulations ("CCR"), and the Contractor shall keep a copy of these available at the job Site for ready reference during construction.
- B. The Division of the State Architect ("DSA") shall be notified at or before the start of construction.

1.03 OBSERVATION AND SUPERVISION:

- A. The District 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, CCR, Part 1, Title 24, Section 4-341.
- B. One or more Project Inspector(s) approved by DSA and employed by or in contract with the District, referred to hereinafter as the "Project Inspector", will observe the work in accordance with CCR, Part 1, Title 24, Sections 4-333(b) and 4-342:
 - (1) The Project Inspector and Special Inspector(s) 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. The Contractor shall provide facilities and operation of equipment as needed, and access as required and shall provide assistance for sampling or measuring materials.
 - (2) The Project Inspector will notify the District and Architect and call the attention of the Contractor to any observed failure of Work or material to conform to Contract Documents.
 - (3) The Project Inspector shall observe and monitor all testing and inspection activities required.

The Contractor shall conform with all applicable laws as indicated in the Contract Documents, including, without limitation, to CCR, Part 1, Title 24, Section 4-343. The Contractor shall supervise and direct the Work and maintain a competent superintendent on the job who is authorized to act in all matters pertaining to the Work. The Contractor's superintendent shall also 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 Part 1, Title 24, Section 4-336.

1.04 TESTING AGENCIES:

- A. Testing agencies and tests shall be in conformance with the General Documents and the requirements of Part 1, Title 24, Section 4- 335.
- B. Testing and inspection in connection with earthwork shall be under the direction of the District's consulting soils engineer, if any, referred to hereinafter as the "Soils Engineer."
- C. Testing and inspection of construction materials and workmanship shall be performed by a qualified laboratory, referred to hereinafter as the "Testing 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 District.

1.05 TESTS AND INSPECTIONS:

- A. The Contractor shall be responsible for notifying the District and Project Inspector of all required tests and inspections. Contractor shall notify the District and Project Inspector at least seventy-two hours (72) hours in advance of performing any Work requiring testing or inspection.
- B. The Contractor shall provide access to Work to be tested and furnish incidental labor, equipment, and facilities to facilitate all inspections and tests.
- C. The District will pay for first inspections and tests required by the "CCR", and other inspections or tests that the District and/or the Architect may direct to have made, including the following principal items:
 - (1) Tests and observations for earthwork and paving.
 - (2) Tests for concrete mix designs, including tests of trial batches.
 - (3) Tests and inspections for structural steel work.
 - (4) Field tests for framing lumber moisture content.
 - (5) Additional tests directed by the District that establish that materials and installation comply with the Contract Documents.
 - (6) Tests and observations of welding and expansion anchors.

- D. The District may at its discretion, pay and then back charge the Contractor for:
 - (1) Retests or reinspections, if required, and tests or inspections required due to Contractor error or lack of required identifications of material.
 - (2) Uncovering of work in accordance with Contract Documents.
 - (3) Testing done on weekends, holidays, and overtime will be chargeable to the Contractor for the overtime portion.
 - (4) Testing done off Site.

- E. Testing and inspection reports and certifications:
 - (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.
 - (a) The District;
 - (b) The Construction Manager, if any;
 - (c) The Architect;
 - (d) The Consulting Engineer, if any;
 - (e) Other engineers on the Project, as appropriate;
 - (f) The Project Inspector; and
 - (g) The Contractor.

 - (2) When the test or inspection is one required by the CCR, a copy of the report shall also be provided to the DSA.

PART 2 - PRODUCTS

2.01 TYPE OF TESTS AND INSPECTIONS

- A. Testing and inspection shall be in accordance with DSA Form 103 (or current version)

- B. Slump Test
ASTM C 143

- C. Concrete Tests

Testing agency shall test concrete used in the work per the following paragraphs:

- (1) Compressive Strength:

- (a) Minimum number of tests required: One (1) set of three (3) cylinders for each 100 cubic yards (Sec. 2604(h) 01) of concrete or major fraction thereof, placed in one (1) day. See Title 24, Section 2605(g).
- (b) Two cylinders of each set shall be tested at twenty-eight (28) days. One (1) cylinder shall be held in reserve and tested only when directed by the Architect or District.
- (c) Concrete shall test the minimum ultimate compressive strength in twenty-eight 28 days, as specified on the structural drawings.
- (d) In the event that the twenty-eight (28) day test falls below the minimum specified strength, the effective concrete in place shall be tested by taking cores in accordance with UBC Standard No. 26-13 and tested as required for cylinders.
- (e) In the event that the test on core specimens falls below the minimum specified strength, the concrete will be deemed defective and shall be removed and replaced upon such direction of the Architect, and in a manner acceptable to the Division of the State Architect.

D. Reinforcing, Steel

E. Structural Steel Per Title 24 and as noted:

- (1) Material: Steel per Table in Title 24, Section 2712.
- (2) Qualification of Welders (UBC Std. 27-6).
- (3) Shop fabrication (Section 2712(d). Structural steel only).
- (4) Shop and field welding (Section 2712(e)).

PART 3 - EXECUTION Not Used.

END OF DOCUMENT

PART 1 - GENERAL**1.1 SUMMARY**

A. Section Includes:

1. Sealants and backing for interior and exterior joints.

1.2 RELATED REQUIREMENTS

- A. Section 01 6116, Volatile Organic Compound (VOC) Restrictions, for VOC limits pertaining to adhesives, sealants, fillers, primers, and coatings.
- B. Pertinent Sections specifying sealants or referencing this Section for sealant products and installation requirements.

1.3 REFERENCES AND STANDARDS

- A. California Building Code (CBC), edition as noted on Drawings.
- B. California Green Building Standards Code (CAL Green), edition as noted on Drawings.
- C. American Concrete Institute (ACI) Publications and Standards:
 1. ACI 302.1R: Guide to Concrete Floor and Slab Construction.
 2. ACI 360R-10: Guide to Design of Slabs-on-Ground.
- D. ASTM International (ASTM):
 1. C834: Standard Specification for Latex Sealants.
 2. C919: Standard Practice for Use of Sealants in Acoustical Applications.
 3. C920: Standard Specification for Elastomeric Joint Sealants.
 4. C1193: Standard Guide for Use of Joint Sealants.
 5. C1247: Standard Test Method for Durability of Sealants Exposed to Continuous Immersion in Liquids.
 6. C1248: Standard Test Method for Staining of Porous Substrate by Joint Sealants.
 7. C1311: Standard Specification for Solvent Release Sealants.
 8. C1330: Standard Specification for Cylindrical Sealant Backing for Use with Cold Liquid-Applied Sealants.
 9. C1521: Standard Practice for Evaluating Adhesion of Installed Weatherproofing Sealant Joints.
 10. D1667: Standard Specification for Flexible Cellular Materials - Poly (Vinyl Chloride) Foam (Closed-Cell).
 11. E90: Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements.
- E. Federal Specifications (FS):

JOINT SEALANTS
SECTION 07 9200
21-1504

1. FS TT-S-001657: Sealing Compound--Single Component, Butyl Rubber Based, Solvent Release Type.

F. South Coast Air Quality Management District (SCAQMD):

1. Rule 1168: Adhesive and Sealant Applications.

G. U.S. Food & Drug Administration (FDA):

1. Code of Federal Regulations: Title 21, 21 CFR 177.2600, Rubber Articles Intended for Repeated Use.

1.4 DEFINITIONS

A. Sealant Terminology in accordance with ASTM C834 and ASTM C920:

1. Type C: Clear / translucent sealant.
2. Type OP: Opaque pigmented sealant.
3. Type S: Single component sealant.
4. Type M: Sealant with two or more components.
5. Grade NS: Nonsag sealant.
6. Grade P: Pourable sealant.
7. Grade -18°C: Sealant with low temperature flexibility tested to -18°C (0°F).
8. Grade 0°C: Sealant with low temperature flexibility tested to 0°C (32°F).
9. Grade NF: Sealant does not meet low temperature flexibility requirements.
10. Class 12-1/2: Sealant capable of handling movement, either contraction or expansion, of 12.5 percent of the original joint width.
11. Class 25: Sealant capable of handling movement, either contraction or expansion, of 25 percent of the original joint width.
12. Class 35: Sealant capable of handling movement, either contraction or expansion, of 35 percent of the original joint width.
13. Class 50: Sealant capable of handling movement, either contraction or expansion, of 50 percent of the original joint width.
14. Class 100 / 50: Sealant capable of handling movement of 50 percent contraction and 100 percent expansion.
15. Use Related to Exposure:
 - a. Use NT: Nontraffic.
 - b. Use T: Traffic.
 - c. Use I: Immersible.
16. Use Related to Material:
 - a. Use A: Sealant used in contact with aluminum.
 - b. Use G: Sealant used in contact with glass.
 - c. Use M: Sealant used in contact with mortar.
 - d. Use O: Sealants used in contact with all other materials other than those previously listed.

1.5 ADMINISTRATIVE REQUIREMENTS

- A. Submittal Procedures:
 - 1. Action Submittals and Informational Submittals shall be submitted in accordance with Section 01 3300, Submittal Procedures.
 - 2. Closeout Submittals shall be submitted in accordance with Section 01 7700, Closeout Procedures.
- B. Pre-Installation Meeting: Conduct at Project site. Review joint application procedures, compatibility tests, adhesion tests, and warranty requirements in a meeting involving Architect, Project Inspector, installer, manufacturer or manufacturer's representative.
- C. Coordination:
 - 1. Use of different manufacturer's sealant types for application at exterior wall and glazing systems is not permitted. It is required that a single source for silicone sealants be used on this Project. The Contractor is responsible for coordinating compliance with this requirement where installation of sealants is delegated to various Subcontractors installing the exterior envelope systems for the Project.
 - 2. Contractor shall coordinate and be responsible for compatibility and performance between sealants and other materials, and related Sections using sealants which may be in direct contact with work of this Section or adjacent to the other. Isolate and prevent of incompatibility between sealants in accordance with manufacturer's specifications, recommendations and instructions.

1.6 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated, demonstrate compliance with specified attributes.
 - 1. Include color chart from manufacturers for each joint sealant product required.
 - 2. Provide certification by joint sealant manufacturer that materials provided for this Section are 100 percent asbestos-free.
- B. Samples for initial Selection: In form of manufacturer's standard bead samples, consisting of strips of actual products showing full range of colors available, for each product exposed to view.
- C. Samples for Verification: For each kind and color of joint sealant required, provide Samples with joint sealants in 1/2 inch wide joints formed between two 6 inch long strips of material matching the appearance of exposed surfaces adjacent to joint sealants.

1.7 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For Installer.
- B. Product Certificates: For each kind of joint sealant and accessory, from manufacturer.
- C. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, indicating that sealants comply with requirements.

JOINT SEALANTS
SECTION 07 9200
21-1504

1. Preconstruction Compatibility and Adhesion Test Reports from sealant manufacturer, indicating the following:
 - a. Materials forming joint substrates and joint-sealant backings have been tested for compatibility and adhesion with joint sealants.
 - b. Interpretation of test results and written recommendations for primers and substrate preparation needed for adhesion.

- D. Sustainable Design:
 1. General:
 - a. Submit information necessary to establish and document compliance with the California Green Building Standards Code.
 2. The following information shall be provided:
 - a. Adhesives and Sealants: Evidence of compliance that products meet maximum VOC content limits specified in Section 01 6116.

- E. Sample of manufacturer's warranty.

1.8 CLOSEOUT SUBMITTALS

- A. Warranty and Guarantee: Submit executed warranty and extended Contractor guarantee.

1.9 QUALITY ASSURANCE

- A. Installer Qualifications: Manufacturer's authorized representative who is trained and approved for installation of sealants and backing required for this Project.
- B. Use only new materials and products, unless existing materials or products are specifically shown otherwise on the Drawings to be salvaged and re-used.
- C. Single Source Responsibility: Obtain each kind of joint sealant from single source from single manufacturer.
- D. Materials, components, assemblies, workmanship and installation are to be observed by the Project Inspector. Work not so inspected is subject to uncovering and replacement.
- E. Mockups: Install sealant in mockups of assemblies specified in other Sections that are indicated to receive joint sealants specified in this Section. Use materials and installation methods specified in this Section.

1.10 DELIVERY, STORAGE AND HANDLING

- A. Deliver materials to project site in original factory wrappings and containers, labeled with identification of manufacturer, product name and designation, color, expiration period for use, pot life, curing time, and mixing instructions for multicomponent materials.
- B. Store and handle materials in compliance with manufacturer's recommendations to prevent their deterioration or damage due to moisture, high or low temperatures, contaminants, or other causes.

1.11 FIELD CONDITIONS

- A. Environmental Conditions: Do not proceed with installation of joint sealants under the following conditions:
 - 1. When ambient and substrate temperature conditions are outside the limits permitted by joint sealant manufacturer.
 - 2. When joint substrates are wet.
- B. Joint Width Conditions: Do not proceed with installation of joint sealants where joint widths are less than allowed by joint sealant manufacturer for application indicated.
- C. Joint Substrate Conditions: Do not proceed with installation of joint sealants until contaminants capable of interfering with their adhesion are removed from joint substrates.

1.12 WARRANTY AND GUARANTEE

- A. Manufacturer: In addition to the Contractor's and Subcontractor's Standard Guarantee, furnish Owner with manufacturer's fully executed written warranty for sealant against defects in materials and workmanship for a period of 5 years:
- B. Contractor: in addition to its standard Guarantee under the Contract, furnish Owner a special extended written five-year guarantee, cosigned by installer, for sealant, agreeing to replace any and all joints that leaks or otherwise fails to perform as required within guarantee period as a result of failure of materials or installation workmanship at no additional cost to the Owner.

PART 2 - PRODUCTS

2.1 DESIGN AND PERFORMANCE CRITERIA

- A. Sustainable Design:
 - 1. VOC emissions for field-applied adhesives, sealants, and sealant primers must comply with limits specified in Section 01 6116.
- B. Building Envelope: Make watertight and weatherproof.
 - 1. Exterior work that does not remain watertight and all work which does not retain all properties inherent in the product as stipulated by the manufacturer will be considered faulty.
- C. Provide elastomeric joint sealants that have been produced and installed to establish and to maintain watertight and airtight continuous seals without causing staining or deterioration of joint substrates.
- D. Provide joint sealants for interior applications that have been produced and installed to establish and maintain airtight continuous seals that are water resistant and cause no staining or deterioration of joint substrates.

JOINT SEALANTS
SECTION 07 9200
21-1504

E. Design Requirements:

1. Seal building joints with non-sag type sealant.
2. Seal floor joints with self-leveling or slope grade self-leveling type sealant.

2.2 MATERIALS, GENERAL

A. Compatibility: Provide joint sealants, joint fillers, and other related materials that are compatible with one another and with joint substrates under conditions of service and application, as demonstrated by sealant manufacturer based on testing and field experience.

B. Liquid-Applied Joint Sealants: Comply with ASTM C920 and other requirements indicated for each liquid-applied joint sealant specified, including those referencing ASTM C920 classifications for type, grade, class, and uses related to exposure and joint substrates.

1. Suitability for Immersion in Liquids. Where sealants are indicated for Use I for joints that will be continuously immersed in liquids, provide products that have undergone testing according to ASTM C 1247. Liquid used for testing sealants is deionized water, unless otherwise indicated.

C. Colors:

1. General:

- a. Match adjacent surfaces.
- b. Not all locations will have the same color.

2. Provide color of exposed joint sealants to comply with the following:

- a. Provide colors matching selections made by Architects from manufacturer's full range of colors for products of type indicated.
- b. Request color selection for exposed products listed without a preselected color.

2.3 SILICONE JOINT SEALANTS

A. Single-Component, Nonsag, Neutral-Curing Silicone Joint Sealant: ASTM C920, Type S, Grade NS, Class 100 / 50, for Use NT.

1. Products: The following, or equal:

- a. The Dow Chemical Company; "DOWSIL" 790.
- b. Sika Corporation, Construction Products Division; "Sikasil" WS-290.

B. Single-Component, Nonsag, Neutral-Curing Silicone Joint Sealant: ASTM C920, Type S, Grade NS, Class 50, for Use NT.

1. Products: The following, or equal:

- a. Dow Corning Corporation; "DOWSIL 795 Building Sealant".
- b. Sika Corporation, Construction Products Division; "Sikasil WS-295."

- C. Single-Component, Nonsag, Non-Bleed, Neutral-Curing Silicone Joint Sealant: ASTM C920, Type S, Grade NS, Class 50, for Use G, M, A and O.
 - 1. Products: The following, or equal:
 - a. The Dow Chemical Company; "DOWSIL 756 SMS."
 - b. Momentive Performance Materials; "SCS9000 SilPruf NB."
- D. Single-Component, Nonsag, One Part RTV Neutral-Curing Silicone Joint Sealant: ASTM C920, Type S, Grade NS, Class 25, designed for adhering to low energy surfaces common in sheet or peel and stick weather resistant barriers.
 - 1. Products: The following, or equal:
 - a. The Dow Chemical Company; "DOWSIL" 758.
 - b. Sika Corporation, Construction Products Division; "Sikasil-N Plus."
- E. Mildew-Resistant, Single-Component, Acid-Curing Silicone Joint Sealant: ASTM C920, Type S, Grade NS, Class 25, for Use NT, A and O.
 - 1. Products: The following, or equal:
 - a. The Dow Chemical Company; "DOWSIL 786 Mildew Resistant."
 - b. Momentive Performance Materials; GE Silicones "Sanitary SCS1700."

2.4 URETHANE JOINT SEALANTS

- A. Single-Component, Nonsag, Urethane Joint Sealant: ASTM C920, Type S, Grade NS, Class 35, for Use NT.
 - 1. Products: The following, or equal:
 - a. BASF Master Builders Solutions; "MasterSeal NP 1."
 - b. Sika Corporation, Construction Products Division; "Sikaflex-1a."
- B. Multicomponent, Nonsag, Urethane Joint Sealant: ASTM C920, Type M, Grade NS, Class 25, for Use NT, M, A and O.
 - 1. Products: The following, or equal:
 - a. BASF Master Builders Solutions; "MasterSeal NP 2."
 - b. Sika Corporation, Construction Products Division; "Sikaflex-2c NS."
- C. Multicomponent Urethane Joint Sealant: ASTM C920; self-leveling, Type M, Grade P, Class 25, Uses T, M, A, O, and approved by manufacturer for wide joints up to 1-1/2 inches.
 - 1. Products: The following or equal:
 - a. BASF Master Builders Solutions; "MasterSeal SL 2."
 - b. Sika Corporation, Construction Products Division; "Sikaflex 2c SL."

JOINT SEALANTS

SECTION 07 9200

21-1504

2.5 ACRYLIC LATEX JOINT SEALANTS

- A. Latex Joint Sealant: Acrylic latex or siliconized acrylic latex, nonsag, paintable, nonstaining. ASTM C 834, Type OP, Grade NF.
 - 1. Products: The following, or equal:
 - a. Pecora Corporation; "AC-20."
 - b. Sherwin Williams; 950A.

2.6 JOINT SEALANT BACKING

- A. General: Provide sealant backings of material and type that are nonstaining; are compatible with joint substrates, sealants, primers and other joint fillers; and are approved for applications indicated by sealant manufacturer based on field experience and laboratory testing.
- B. Cylindrical Sealant Backer Rods: Compressible, non-gassing rod-stock complying with ASTM C1330; polyethylene-jacketed polyurethane foam; butyl-rubber foam; neoprene foam; or other flexible, permanent, durable, non-absorptive closed-cell (Type C), open cell (Type O), or bi-cellular material (Type B) and of size and density to control sealant depth and otherwise contribute to producing optimum sealant performance.
 - 1. Open cell rods shall not be used at sealant joints for horizontal surfaces.
 - 2. Closed cell rods shall not be used at double sealant joints.
- C. Bond-Breaker Tape: Polyethylene tape or other plastic tape as recommended by sealant manufacturer for preventing sealant from adhering to rigid, inflexible joint filler materials or joint surfaces at back of joint where such adhesion would result in sealant failure. Provide self-adhesive tape where applicable.

2.7 SEALANT ACCESSORIES AND ADDITIONAL MATERIALS

- A. Primer: Material recommended by joint sealant manufacturer where required for adhesion of sealant to joint substrates indicated, as determined from preconstruction joint sealant-substrate tests and field tests.
- B. Cleaners for Nonporous Surfaces: Chemical cleaners acceptable to manufacturers of sealants and sealant backing materials, free of oily residues or other substances capable of staining or harming in any way joint substrates and adjacent nonporous surfaces, and formulated to promote optimum adhesion of sealants with joint substrates.
- C. Masking Tape: Nonstaining, nonabsorbent material compatible with joint sealants and surfaces adjacent to joints.
- D. Spall Repair Mortar: Two-component structural epoxy binder and sand aggregate, producing a mortar that is easily worked and troweled. Early-set system designed specifically for the repair of industrial concrete floors subject to hard wheeled traffic. Compatible with joint filler and recommended by the joint filler manufacturer in writing.
 - 1. Products: The following, or equal:
 - a. Metzger/McGuire: "Armor-Hard."

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine joints indicated to receive joint sealants, with Installer present, for compliance with requirements for joint configuration, installation tolerances, and other conditions affecting joint sealant performance. Do not proceed with installation of joint sealants until unsatisfactory conditions have been corrected.
- B. Commencement of work indicates acceptance of substrates.

3.2 PREPARATION

- A. Surface Cleaning of Joints: Clean out joints immediately before installing joint sealants to comply with recommendations of joint sealant manufacturer and the following requirements:
 - 1. Remove foreign material from joint substrates that could interfere with adhesion of joint sealant, including dust, paints (except for permanent, protective coatings tested and approved for sealant adhesion and compatibility by sealant manufacturer), old joint sealants, oil, grease, waterproofing, water repellents, water, surface dirt, and frost.
 - 2. Clean concrete, masonry, unglazed surfaces of ceramic tile, and similar porous joint substrate surfaces by brushing, grinding, blast cleaning, mechanical abrading, or a combination of these methods to produce a clean, sound substrate capable of developing optimum bond with joint sealants. Remove loose particles remaining from above cleaning operations by vacuuming or blowing out joints with oil-free compressed air.
 - 3. Remove laitance and form release agents from concrete.
 - 4. Clean metal, glass, porcelain enamel, glazed surfaces of ceramic tile, and other nonporous surfaces with chemical cleaners or other means that do not stain, harm substrates, or leave residues capable of interfering with adhesion of joint sealants.
- B. Spall Repair: Repair spalled joints in concrete slabs to produce joints of profiles recommended by joint sealer manufacturers.
- C. Joint Priming:
 - 1. Prime joint substrates where indicated or where recommended by joint sealant manufacturer based on preconstruction joint sealant-substrate tests or prior experience.
 - 2. Apply primer to comply with joint sealant manufacturer's recommendations. Confine primers to areas of joint sealant bond; do not allow spillage or migration onto adjoining surfaces.
- D. Masking Tape:
 - 1. Use masking tape where required to prevent contact of sealant with adjoining surfaces that otherwise would be permanently stained or damaged by such contact or by cleaning methods required to remove sealant smears.

JOINT SEALANTS
SECTION 07 9200
21-1504

2. Remove tape immediately after tooling without disturbing joint seal.

3.3 INSTALLATION OF JOINT SEALANTS

A. General:

1. Comply with joint sealant manufacturer's printed installation instructions applicable to products and applications indicated, except where more stringent requirements apply.
2. Seal around penetrations, holes, gaps, surface mounted fixtures and pipes entering building including light fixtures, mounting brackets and other similar items.

B. Sealant Installation Standard: Comply with recommendations of ASTM C1193 for use of joint sealants as applicable to materials, applications, and conditions indicated.

C. Joint Sealants at Building Exterior and Interior:

1. Seal the following joints with joint sealant:
 - a. Joints between dissimilar materials.
 - b. Joints between metal panels.
 - c. Control joints in interior partitions, including portion above ceilings.
 - d. Where shown and noted on the documents.
2. Apply joint sealant at joints not specifically mentioned above which require sealant to meet the performance criteria cited in this Section.

D. Installation of Sealant Backer Rods: Install sealant backer rods to comply with the following requirements:

1. Install joint fillers of type indicated to provide support of sealants during application and at position required to produce the cross-sectional shapes and depths of installed sealants relative to joint widths that allow optimum sealant movement capability.
 - a. Do not leave gaps between ends of joint fillers.
 - b. Do not stretch, twist, puncture, or tear joint fillers.
 - c. Remove absorbent joint fillers that have become wet prior to sealant application and replace with dry material.
2. Install bond breaker tape between sealants where backer rods are not used between sealants and joint fillers or back of joints.

E. Sealant Installation:

1. Install sealants by proven techniques that result in sealants directly contacting and fully wetting joint substrates, completely filling recesses provided for each joint configuration, and providing uniform, cross-sectional shapes and depths relative to joint widths that allow optimum sealant movement capability.
2. Install sealants at the same time sealant backings are installed.

F. Tooling of Nonsag Sealants:

1. Immediately after sealant application and prior to time skinning or curing begins, tool sealants to form smooth, uniform beads of configuration indicated, to eliminate air pockets, and to ensure contact and adhesion of sealant with sides of joint. Remove excess sealants from surfaces adjacent to joint.
2. Do not use tooling agents that discolor sealants or adjacent surfaces or are not approved by sealant manufacturer.
3. Profiles:
 - a. Provide concave joint configuration in accordance with Figure 8A in ASTM C1193, unless otherwise indicated.
 - b. Provide flush joint configuration in accordance with Figure 8B in ASTM C1193, where indicated.
 - c. Provide recessed joint configuration in accordance with Figure 8C in ASTM C1193, of recess depth and at locations indicated.
 - 1) Use masking tape to protect adjacent surfaces of recessed tooled joints.

3.4 DEFECTIVE WORK

- A. Repair damaged and defective work and eliminate functional and visual defects. Where repair is not possible replace work. Adjust joints for uniform appearance.
- B. Cut out and remove damaged or deteriorated joint sealants immediately so that and installations with repaired areas are indistinguishable from original work.

3.5 CLEANING AND PROTECTION

- A. Clean off excess sealants or sealant smears adjacent to joints as work progresses by methods and with cleaning materials approved by manufacturers of joint sealants and of products in which joints occur.
- B. Clean excess adhesive from exposed surfaces of neoprene compression seal with solvent cleaner as recommended by manufacturer.
- C. Protect joint sealants during and after curing period from contact with contaminating substances or from damage resulting from construction operations or other causes so that they are without deterioration or damage at time of Substantial Completion.

3.6 SEALANT SCHEDULE

- A. General:
 1. Joints in construction between interior and exterior spaces and other designated or required locations to provide effective barrier against passage of elements:
 - a. Multicomponent, Nonsag, Urethane Joint Sealant: ASTM C920, Type M, Grade NS, Class 25, for Use NT, M, A and O.
 - b. Single-Component, Nonsag, Urethane Joint Sealant: ASTM C920, Type S, Grade NS, Class 25, for Use NT.
 2. Specialty perimeters where required for appearance or weather tightness:

JOINT SEALANTS
SECTION 07 9200
21-1504

- a. Multicomponent, Nonsag, Urethane Joint Sealant: ASTM C920, Type M, Grade NS, Class 25, for Use NT, M, A and O; capable of 50 percent extension and compression movement.
- b. Single-Component, Nonsag, Urethane Joint Sealant: ASTM C920, Type S, Grade NS, Class 35, for Use NT.
- c. Single-Component, Nonsag, Neutral-Curing Silicone Joint Sealant: ASTM C920, Type S, Grade NS, Class 50, for Use NT.
- d. Single-Component, Nonsag, Neutral-Curing Silicone Joint Sealant: ASTM C920, Type S, Grade NS, Class 100 / 50, for Use NT.

B. Exterior Locations:

1. All Exterior Joints:

- a. Single-component, nonsag, neutral-curing silicone joint sealant, ASTM C920, Type S, Grade NS, Class 100 / 50, for Use NT.
- b. Single-component, nonsag, neutral-curing silicone joint sealant, ASTM C920, Type S, Grade NS, Class 50, for Use NT.
- c. Around perimeters of frames where door, window and louver frames abut concrete, masonry or other building materials.
- d. Expansion and control joints in masonry.
- e. Masonry at dissimilar material or at dissimilar masonry.
- f. Miscellaneous locations where sealant is shown on Drawings.

C. Interior Locations:

1. Interior Wet Areas, Around Plumbing Fixtures, Mildew-resistant, single-component, acid-curing silicone joint sealant, ASTM C920, Type S, Grade NS, Class 25, for Use NT, A and O.
2. Interior Static Dry Joints as Required to Dress Appearance: Acrylic latex or siliconized acrylic latex joint sealant, ASTM C 834, Type OP, Grade NF

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Painting and painter's finish on all exposed exterior and interior surfaces, except prefinished items and unless otherwise noted, as required to complete finishing of the Work. The Work includes, but is not necessarily limited to, the following specific items:
 - 1. Paint, stain or otherwise finish all new surfaces.
 - 2. Back priming of concealed surfaces, except as otherwise specified.
 - 3. Paint, repaint or finish of existing painted surfaces altered, defaced or damaged as a result of work of this Contract.
 - 4. Paint site items which are not prefinished, including posts, screens, panels, bollards, supports, rails and other similar improvements.
 - 5. Unpainted or unfinished exposed building components, pipes and conduit, which run exposed across finished or painted surfaces.
- B. Surface treatment, priming and coats of paint specified in this Section are in addition to shop priming and surface treatment specified under other Sections unless otherwise noted.
- C. Items Not Included in This Section:
 - 1. Factory and shop-prefinished items as specified in various Sections.
 - 2. Painting specified elsewhere and included in respective Sections, including but not necessarily limited to shop priming.

1.2 WORK NOT TO BE PAINTED UNLESS OTHERWISE INDICATED

- A. Exposed exterior concrete and concrete slab surfaces, except as noted.
- B. Unfinished masonry, except where noted.
- C. Suspended acoustical ceilings and acoustical tile, except as noted.
- D. Pre-finished casework and other factory and shop-prefinished items as specified in various Sections.
- E. Finish hardware except prime coated items.
- F. Items typically not to be painted including, but not limited to, the following:
 - 1. Glass.
 - 2. Ceramic tile.
 - 3. Membrane roofing.
 - 4. Safety nosings.

PAINTING
SECTION 09 9100
21-1504

5. Resilient floor covering and base.
 6. Carpet.
 7. Pre-finished paneling.
 8. Plastic laminate.
 9. Porcelain enamel.
 10. Vinyl wallcovering, except where noted.
- G. Aluminum doors, windows, frames and railings.
- H. Metal or plastic toilet partitions.
- I. Items of chromium, copper, nickel, brass, bronze or stainless steel.
- J. Surfaces in concealed areas such as furred spaces.
- K. Tops of gravel stop flanges (including priming) where roofing material will be adhered to.
- L. Wall areas concealed by cases, counters, cabinets, chalkboards, tackboards (prime coat only required).
- M. Piping or conduit including brackets and similar items therewith running on or across unpainted or otherwise unfinished walls or ceilings.
- N. Galvanized gratings, recessed foot grilles, and thresholds.
- O. Structural steel scheduled to receive fireproofing.
- P. Existing rooms or areas not affected by work of this project, unless specifically noted otherwise.

1.3 RELATED REQUIREMENTS

- A. Section 01 6116, Volatile Organic Compound (VOC) Restrictions; for VOC limits pertaining to adhesives, sealants, fillers, primers, and coatings.
- B. Section 05 5000, Metal Fabrications.
- C. Section 07 9200, Joint Sealants.
- D. Section 26 0150, Electrical Basic Materials and Methods

1.4 REFERENCES AND STANDARDS

- A. California Building Code (CBC), edition as noted on the Drawings.
- B. California Green Building Standards Code (CAL Green), edition as noted on the Drawings.
- C. ASTM International (ASTM):
 1. D523: Standard Test Method for Specular Gloss.

2. D4263: Standard Test Method for Indicating Moisture in Concrete by the Plastic Sheet Method.

D. Master Painters Institute (MPI):

1. Architectural Painting Manual Guide Specification.

1.5 ADMINISTRATIVE REQUIREMENTS

A. Submittal Procedures:

1. Action Submittals and Informational Submittals shall be submitted in accordance with Section 01 3300, Submittal Procedures.
2. Closeout Submittals shall be submitted in accordance with Section 01 7700, Closeout Procedures.

1.6 ACTION SUBMITTALS

- A. Product Data: Submit list and complete descriptive data of products proposed for use. Include manufacturer's specifications, published warranty or guarantee, and application instructions. Cross-reference to paint system and locations of application areas.

1.7 INFORMATIONAL SUBMITTALS

- A. Statement of applicator qualifications.

1.8 CLOSEOUT SUBMITTALS

- A. Guarantee: Submit Subcontractor's guarantee.

1.9 MAINTENANCE MATERIAL SUBMITTALS

- A. At completion of the Work, deliver to Owner extra stock of paint of each color used in each coating material used.
- B. Containers shall be full, tightly sealed, and clearly marked.

1.10 QUALITY ASSURANCE

- A. Use only new materials and products.
- B. Single-Source Responsibility:
1. To the maximum extent practicable, select a single manufacturer to provide all materials required by this Section, using additional manufacturers to provide systems not offered by the selected principal manufacturer.
 2. For each individual system:
 - a. Provide primer and other undercoat paint produced by same manufacturer as finish coat.
 - b. Use thinner within manufacturer's recommended limits.

PAINTING
SECTION 09 9100
21-1504

- C. Source Quality Control: Material shall be best grade products of type specified and listed below as regularly manufactured by these manufacturers. Materials not bearing manufacturer's identification as standard "best grade product" of their regular line will not be considered for use.
- D. Materials, components, assemblies, workmanship and installation are to be observed by the Owner's Project Inspector. Work not so inspected is subject to uncovering and replacement.
- E. Materials and application procedures shall comply with local, state and federal air pollution control regulations.
- F. Manufacturer's representative from coating supplier shall visit the site prior to application to review and approve the specified systems. Discrepancies or recommended changes shall be submitted to the Architect for consideration prior to finalization of submittal.

1.11 DELIVERY, STORAGE AND HANDLING

- A. Deliver undamaged products to job in manufacturer's sealed containers and/or original bundles with tags and labels intact.
- B. Store materials in protected, clean, dry conditions off of ground and in areas which will not interfere with the progress of the Work.
- C. Transport, store and handle in strict accordance with the manufacturer's written recommendations and as specified below.
- D. Remove paint-soiled rags and waste from premises at end of each day's work or store in metal containers with metal covers.
- E. Paint stored at site, shall be in separate structure not less than 60 feet from any other building or structure. Remove empty containers and soiled rags as they accumulate. At completion, remove structure, cleanup area, and leave in original condition.

1.12 FIELD CONDITIONS

- A. Do not apply paints and coatings under conditions which jeopardize quality or appearance of painting or finishing.
- B. Cover or otherwise protect finished work of other trades and surfaces not being painted concurrently or not to be painted.
- C. Exterior:
 - 1. Comply with manufacturer's recommendations as to environmental conditions under which coatings and coating systems can be stored and applied.
 - 2. Do not apply exterior paint when air or surface temperature is under 50 degrees F or when air or surface temperature will be below 50 degrees F for 48 hours after painting.
 - 3. Do not apply immediately following snow, rain, dew or during foggy weather.

4. Do not apply when temperature is over 85 degrees F except in protected or shaded areas.
- D. Interior:
1. Do not apply interior paint when air or surface temperature is below 50 degrees F unless temperature is maintained constantly.
 2. Do not apply when ventilation is inadequate to maintain humidity lower than dew point of coldest wall.
- E. Use moisture meter for determining proper moisture levels of surfaces for painting.
- F. Report to Architect in writing upon discovery of any prime coat painting specified in other Sections of Specifications that would prevent proper application of specified finish.
- G. Furnish, erect and remove scaffolding and planks required for work under this Section. Conform to state and local codes, rules and regulations.

1.13 EXISTING CONDITIONS

- A. Existing Surfaces:
1. Paint, stain or otherwise finish all existing surfaces as indicated or scheduled on the Drawings.
 2. Work includes primer, paint, repaint or finish of existing painted surfaces altered, defaced or damaged as a result of work under this Contract.
- B. Existing surfaces with paint, stain, varnish or similar type coating shall be assumed to contain various concentrations of lead. Cal/OSHA regulations are therefore applicable during disturbance, preparation or repainting of these surfaces.
- C. Existing surfaces to be painted include:
1. Exterior wall surfaces, including fascia, trim.
 2. Soffits and exterior ceilings including exposed roof framing.
 3. Concrete foundation where exposed below painted wall surfaces.
 4. Other work as shown on the Drawings, specified, or as required for a complete Project.

1.14 GUARANTEE

- A. Contractor: In addition to his standard Guarantee under the Contract, Contractor shall guarantee that paint colors shall be substantially unchanged and finishes shall maintain their original adherence without showing blisters, flaking, peeling, scaling, staining or unusual deterioration or other defects.

PAINTING
SECTION 09 9100
21-1504
PART 2 - PRODUCTS

2.1 DESIGN AND PERFORMANCE CRITERIA

- A. Sustainable Design:
 - 1. VOC emissions for field-applied paints and coatings must comply with limits specified in Section 01 6116.

2.2 MANUFACTURERS AND COATING PRODUCTS

- A. Products are specified under "Paint Systems" in Part 3 below and are manufactured by Kelly-Moore, except as otherwise indicated. Equivalent products to those scheduled manufactured by PPG Architectural Finishes, Glidden Professional, Benjamin Moore & Co., Sherwin-Williams, Dunn-Edwards, Vista, or equal are acceptable.
- B. Materials selected for coating systems for each type surface shall be the product of a single manufacturer or shall be acceptable to manufacturer of finish coating for system.
- C. If more than one quality level of product type is marketed, use material of highest quality.

2.3 MIXING AND TINTING

- A. Deliver paints and stains ready mixed to jobsite. On-site color mixing or tinting will not be allowed.
- B. Each kind of coating for paint finishes shall be factory-mixed to match approved samples, colors, and ready for immediate application.
- C. Mix proprietary products in strict accordance with manufacturer's printed directions.
- D. Thinning, if permitted by manufacturer for a specific coating, shall be in accordance with manufacturer's instructions. Thinning of other products shall be in accordance with standard practice.

2.4 COLORS

- A. Colors to match existing adjacent surfaces.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Prior to the work of this Section, carefully inspect and verify that the installed work of all other trades is complete to the point where this work may properly commence.
- B. Verify that painting may be performed in accordance with the approved design.
- C. In the event of discrepancy, immediately notify Architect. Do not proceed in discrepant areas until discrepancies have been fully resolved.

3.2 PREPARATION

A. General:

1. Surface preparation and product application shall be in accordance with manufacturer's printed instructions.
2. In addition to prime coats indicated (primer, sealer, filler, undercoat), use two (2) finish coats minimum, and additional coats as required for complete coverage and good appearance of scheduled finish coat.
3. Surfaces to receive new finish shall be properly prepared prior to application of finish coatings.
4. Do not apply paint, enamel, stains or varnishes to wet, damp, dusty, finger-marked, rough, unfinished, or defective surfaces until such defects have been corrected.

B. Wood - Interior:

1. Thoroughly sandpaper and dust off woodwork; putty nail holes, cracks, and other defects after first coat to match color of paint. Putty where finish will be clear.
2. First coat on wood surfaces shall be sanded smooth. Other coats, except finish coat, shall be lightly sanded and dusted before and between each coat.
3. Smoothing, rubbing and sand-papering shall be sufficient to insure good results. Sand down all raised grain or rough surfaces and re-coat. Knots, pitch pockets and sappy portion of wood, all nail holes, cuts, cracks and other defects in wood shall have any necessary extra treatment to provide proper paint base.

C. Wood – Exterior:

1. Surfaces shall be dry and free of grease and splatters.
2. Rough surfaces shall be sanded smooth. **[Do not sandpaper resawn surfaces.]**
3. At opaque finish, fill nail holes, cracks, open joints, and other defects with filler after priming coat has dried. Exposed nail heads shall be spot primed.
4. Avoid painting surfaces while exposed directly to hot sun.
5. Smooth surfaces shall be sanded thoroughly to allow proper penetration and adhesion. Areas exhibiting tannic acid staining shall receive two coats of primer waiting 24 hours between coats. Sand and prime as soon as possible after installation to avoid UV degradation of unpainted wood surface.
6. Mildew, if present, shall be removed by scrubbing with a commercial mildew wash in accordance with manufacturer's directions.

D. Metals:

1. On metal work, only such sanding will be required as is necessary to provide for complete bonding of coats.
2. Steel and ironwork shall be scraped clean of scale, and rust and any grease shall be entirely removed.
3. Touch-up scratched and damaged places on metal priming coats.

PAINTING
SECTION 09 9100
21-1504

4. Galvanized or zinc-coated metal shall be given an approved acid treatment 48 hours before paint is applied.
5. Prep and prime coat factory or shop primed metal products, including metal doors and frames, exposed framing, and other exposed metal if material was not shop primed.
6. Metal surfaces receiving epoxy coatings shall have stripe coat applied at all welds, edges, joints, etc., with epoxy primer prior to application of primer.

E. Gypsum Board:

1. General:
 - a. Fill narrow, shallow cracks and small holes with spackling compound.
 - 1) Rake deep, wide cracks and deep holes.
 - 2) Dampen with clear water.
 - b. Fill with thin layers of drywall joint cement.
 - c. Allow to dry.
 - d. Sand smooth after drying. Do not raise nap of paper on gypsum board.]
2. Gypsum Board to Receive Wall Covering and Carpeting:
 - a. Prep and prime surfaces scheduled to receive wall covering with scheduled primer. Refer to Section 09 7200, Wall Covering, for clear acrylic primer to be used at vinyl wall covering.
 - b. Sprayed applications of primer shall be back rolled to assure that the primer has thoroughly sealed the surface.

F. Concrete:

1. Cracks, gaps, hollow areas, bug holes, honey combs, voids, fins, form marks and other protrusions or rough edges are to be ground or stoned to provide a smooth continuous surface.
2. Imperfections may require filling.
 - a. Patch concrete areas with cracks, gaps, hollow areas or other imperfections with compatible material to provide smooth continuous surface.
 - b. Material shall be compatible with and as recommended by the coating manufacturer.
3. Moisture Content:
 - a. Prepared surfaces shall not be painted until they have completely cured and have stabilized moisture content within limits required by the coating manufacturer.
 - b. Testing for Moisture Vapor Emission Rate (MVER) shall be performed to verify suitability using a moisture meter, Delmhorst or equal, or method described in ASTM D4263.
4. Surface shall be reviewed by Architect after surface preparation is complete and prior to application of primer. Additional patching and/or grinding necessary to provide a visually acceptable surface after application of paint coatings shall be accomplished at no additional cost.

- G. Surfaces that cannot be prepared or painted as specified, or to level required by the coating manufacturer, shall be immediately brought to the attention of the Architect, in writing.
 - 1. Starting of work without such notification will be considered acceptance by the Contractor of surfaces involved.
 - 2. Replace unsatisfactory work caused by improper or defective surfaces, as directed by Architect.

3.3 REPAINTING EXISTING INTERIOR SURFACES

- A. Interior surfaces required to be repainted, except acoustic tile, shall be prepared as follows.
 - 1. Wash clean with solution of trisodium phosphate in water and thoroughly rinse or wash with approved self-neutralizing detergent.
 - 2. Spackle, patch, sandpaper, repair, spot or partially prime to provide "hold out" for finish coats of paint and otherwise properly prepare as necessary to provide suitable surfaces, reasonably equal to new, over which to apply specified paints.

3.4 REPAINTING EXISTING EXTERIOR SURFACES

- A. General:
 - 1. Exterior surfaces required to be re-painted, shall be power washed with surfactant, followed by rinsing to remove all loose coatings, chalk, dirt, efflorescence, oils, and other contaminants that would inhibit bond of new coating.
 - 2. Mold or mildew shall be treated with bleach solution followed by thorough rinsing.
 - 3. Protect openings into interior spaces during power washing including louvers, vents, vent screeds, grilles, to prevent water from entering interior areas including, attics and soffits.

- B. Plaster and Concrete Masonry:
 - 1. Remove loose coatings using hand or power tools.
 - 2. Patch plaster areas where original material has cracked, spalled or otherwise been removed with compatible material. Fill areas completely to provide smooth, even surface for refinishing. Spot prime patches prior to proceeding.
 - 3. Patch masonry joints with cracks or missing material with compatible materials.

- C. Wood Siding and Trim:
 - 1. Remove loose, flaking or peeling coatings by scraping, chipping or sanding. Feather rough edges by sanding.
 - 2. Surfaces that exhibit moderate to heavy chalk deposits shall be thoroughly cleaned to sound substrate by wire brushing, sanding, or power washing.

PAINTING
SECTION 09 9100
21-1504

3. Spot prime bare wood, exposed nail and fastener heads prior to application of specified prime coat.
4. Glossy surfaces shall be dulled by sanding. Crystalline deposits shall be removed by flushing with water from a hose.
5. Mildew, if present, shall be removed by scrubbing with a commercial mildew wash in accordance with manufacturer's directions.

D. Concrete:

1. Existing exposed concrete scheduled to receive new finish shall be pressure washed or scrubbed to completely remove all bond breakers and oils.
2. Remove loose coatings not removed by pressure washing using hand or power tools.
3. Efflorescence to be removed following procedures recommended by the paint manufacturer.
4. Cracks, gaps, hollow areas, bug holes, honey combs, voids, fins, form marks and other protrusions or rough edges are to be ground or stoned to provide a smooth continuous surface.
5. Imperfections may require filling.
 - a. Patch concrete areas with cracks, gaps, hollow areas or other imperfections with compatible material to provide smooth continuous surface.
 - b. Material shall be compatible with and as recommended by paint manufacturer.
6. Test for moisture as specified for new concrete.
7. Surface shall be reviewed by Architect after patching is complete and primer is applied. Additional patching and/or grinding necessary to provide a visually acceptable surface shall be accomplished at no additional cost.

E. Stained Wood Surfaces:

1. Thoroughly sand all surfaces.
2. Fill holes, cracks and defects after first coat with color matched putty.
3. Sand between coats to ensure proper adhesion.

F. Casework to be Refinished: For painted casework, refer to Article 3.2. For lacquer or varnish systems, sand all exposed surfaces and both sides of all doors thoroughly.

G. Exterior Ceramic Tile: Abrade surface to receive paint. Thoroughly power-sand all surfaces to remove smooth and/or glossy finish.

3.5 CAULKING

- A. Caulk all cracks in finished surfaces.
- B. Seal around any wall openings where original sealant is not fully sealing.
- C. Provide sealant at material transitions and intersections as required.

3.6 PROTECTION

- A. Hardware, fixture canopies, outlet covers, switch plates and other such items shall be removed or loosened and replaced after completing work as required for painting and finishing. Protect items until reinstalled.
- B. Protect work and work of others during progress against damage. Leave such work clean and whole. Correct damage by cleaning, repairing, replacing or repainting as directed.
- C. Provide necessary drop cloths for protection of work. Cover finished surfaces adjacent to work.

3.7 APPLICATION

- A. General:
 - 1. Do not apply initial coating until moisture content of surface is within limitations recommended by paint manufacturer.
 - 2. Apply coatings in accordance with manufacturer's recommendations and the additional requirements, as applicable, of the Architectural Painting Manual Guide Specifications for application methods and paint systems.
 - 3. Flow coat on evenly and well brushed in. Should dead spots occur, touch-up before next coat is applied. Should spots or cracks burn through after final coat is applied, apply additional coats to entire surface as necessary to remedy defects.
 - 4. Rate of application shall be within limits recommended by paint manufacturer for surface involved.
- B. Thicknesses: Rate of application shall be within limits recommended by paint manufacturer for surface involved and comply with the following.
 - 1. Paint materials shall be applied in manner to average 1.5 to 3 Dry Mills in thickness for the total number of coats scheduled.
 - 2. Provide Tooke Dry Mill Coating Inspection Gauge manufactured by Micro Metrics Company to the Project Inspector for inspection of finished coating systems if requested.
- C. Refinish whole area where portion of finish is not acceptable.
- D. Adjust natural finishes as necessary to obtain identical appearance on veneers and solid stock.
- E. Equipment adjacent to walls shall be disconnected, using workers skilled in appropriate trades, and moved to permit wall surfaces to be painted. Following completion of painting, they shall be expertly replaced and reconnected.
- F. Top and bottom edges of all doors shall receive same paint system finish required for door faces.
- G. Do not paint over fire-rating labels, fusible links, or sprinkler heads.

PAINTING
SECTION 09 9100
21-1504

3.8 DEFECTIVE WORK

- A. Painter shall be responsible for damage or unsuitable work, including that caused by improperly prepared surfaces. Refinishing shall be at no cost to the Owner. Repair work damaged during construction; touch-up or refinish as necessary any abraded, stained or otherwise damaged surfaces.

3.9 CLEANING AND PROTECTION

- A. Thoroughly clean any drips, splatters, spills, splashes, etc., from walls, floor or other surfaces, with no damage to those surfaces.
- B. Protect work and materials of this Section prior to and during installation, and protect the installed work and materials of other trades.
- C. In the event of damage, make all repairs and replacements necessary to the approval of the Architect at no additional cost to the Owner.

3.10 PAINT SYSTEMS

- A. General:
 - 1. Only major areas are scheduled, but miscellaneous and similar items and areas within room or space shall be treated with suitable system.
 - 2. This Specification shall serve as guide and is meant to establish procedure and quality. Confer with the Architect to determine exact finish desired.
 - 3. Number of coats scheduled is minimum. Additional coats shall be applied at no additional cost as required to hide base material completely, produce uniform color, and provide required and satisfactory finish.
- B. Gloss and Sheen Ratings: Paint gloss shall be defined as the sheen rating of applied paint, in accordance with the following limits in conformance with Master Painters Institute, Inc. (MPI) Standards according to ASTM D523. Not all of the Gloss Levels are necessarily scheduled or used on this Project.

Gloss Level	Description	Units @ 60 degrees	Units @ 85 degrees
G1	Matte or Flat finish	0 to 5	10 max.
G2	Velvet finish	0 to 10	10 to 35
G3	Eggshell finish	10 to 25	10 to 35
G4	Satin finish	20 to 35	35 min.
G5	Semi-Gloss finish	35 to 70	
G6	Gloss finish	70 to 85	
G7	High-Gloss finish	> 85	

- C. Clarification of System Terminology:
 - 1. Interior paint Systems are specified and identified herein by initial letters "INT."
 - 2. Exterior paint Systems are specified and identified herein by initial letters "EXT."

3. The numbers following "INT" and "EXT" for each System identifies the substrate to be coated.
4. Initial numbers for each System identify the substrate to be coated summarized as follows with further clarification included with the System description:

CODE	DESCRIPTION
3.1	Concrete
3.2	Cement Plaster
4	Masonry
5	Metal
6	Wood
9.2	Gypsum Board
9.3	Acoustical Panels and Tile

5. The letter following substrate number identifies the general finish coat chemistry summarized as follows:

CODE	DESCRIPTION
A	Standard acrylic
B	Non-bridging vinyl acrylic
C	Epoxy-like acrylic
D	Semi-transparent stain
E	Elastomeric
F	High performance epoxy-like acrylic
G	Lacquer
H	Aliphatic urethane
I	Fire Retardant Intumescent
J	Acrylic Urethane
K	PVA primer
L	Acrylic primer
M	Premium performance acrylic polymer

6. Hyphenated suffix identifies the topcoat gloss level.

3.11 INTERIOR PAINTING SYSTEMS

INT 3.1A-3

Acrylic on Concrete - Gloss Level 3

1 coat	971 AcryPlex	Vinyl Acrylic Primer (if not previously painted)
2 coats	1010 Premium Professional	Latex Eggshell

INT 3.2A-3

Acrylic on Interior Cement Plaster- Gloss Level 3

1 coat	971 AcryPlex	Vinyl Acrylic Primer (if not previously painted)
2 coats	1010 Premium Professional	Latex Eggshell

3.12 EXTERIOR PAINTING SYSTEMS

EXT 3.1A-2

Acrylic on Concrete - Gloss Level 2

1 coat	247 AcryShield	Acrylic Masonry Primer
2 coats	1210 Premium Professional	100% Acrylic Low Sheen

EXT 3.2A-2

Acrylic on Cement Plaster - Gloss Level 2

1 coat	6001-XXXX	Acrylic Bonding Primer
2 coats	1210 Premium Professional	100% Acrylic Low Sheen

EXT 4.1A-2

Acrylic on Concrete Unit Masonry - Gloss Level 2

1 coat	247 AcryShield	Acrylic Masonry Primer
2 coats	1210 Premium Professional	100% Acrylic Low Sheen

EXT 5.1A-5

Acrylic over Unprimed Steel - Gloss Level 5

1 coat	5725 DTM	Metal Primer
2 coats	1215 Premium Professional	100% Acrylic Semi-Gloss

EXT 5.2A-6

Acrylic Urethane over Epoxy on Shop Primed Steel – Gloss Level 6

1 coat	Rust-Oleum “ROC Prime”	Single component waterborne epoxy primer
1 coat	Rust-Oleum “Metalmax Plus DTM”	Single Component Acrylic Urethane Gloss

Note: Provide additional topcoat if required to achieve manufacturer’s recommended total DFT (primer plus finish coats), or to achieve complete hiding for selected color.

EXT 5.3A-5

Premium Acrylic over Waterborne Primer on Galvanized Metal – Gloss Level 5

Pretreatment	SSPC SP-1	Heavy-duty cleaner
1 coat	5725 DTM	Acrylic Primer
2 coats	1250 AcryShield”	100% Acrylic Semi-Gloss

Note: Provide pretreatment and primer if preparation and primer not applied in shop

EXT 5.4A-5

Acrylic over Waterborne Primer on Aluminum – Gloss Level 5

Pretreatment	Devco Devprep 88	Heavy-duty cleaner
1 coat	“5725 DTM	Acrylic Primer
2 coats	1215 Premium Professional	100% Acrylic Semi-Gloss

Note: Provide pretreatment and primer if preparation and primer not applied in shop

PAINTING
SECTION 09 9100
21-1504

3.13 MISCELLANEOUS PAINTING

- A. Mechanical and Electrical Equipment, Conduits and Piping: Paint exposed items as scheduled using appropriate system for material and whether or not item has been factory-primed.
- B. Exposed Insulation-Covered Piping: Size with Arabol, or equal latex type adhesive, and apply 2 coats of semi-gloss enamel.
- C. Material Visible through Grilles, Screens, Louvers, Vents and Screens and Exposed Hardware Cloth Screening: Painted flat black to make them as unnoticeable as possible.
- D. Mechanical Equipment: Paint mechanical equipment housings where indicated on the Drawings.

END OF SECTION