

18-007/ HIGHLANDS ELEMENTARY SCHOOL WINDOW IN-KIND REPLACEMENT PROJECT MANUAL

WINDOW REPLACEMENT IN-KIND

PITTSBURG UNIFIED SCHOOL DISTRICT

February 28, 2017

PROJECT MANUAL
FOR
PROJECT/CONTRACT NUMBER: 1627
WINDOW REPLACEMENT-IN-KIND
Highlands Elementary School

DATE: February 28, 2017

OWNER: Pittsburg Unified School District
2000 Railroad Avenue
Pittsburg, CA 94656




ARCHITECT:

PLUM Architects
3298 Pierce Street
San Francisco, CA 94123
415-837-0900



DSA APPLICATION NO:

DSA FILE NO: : 7-36

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICES		
APPL 01-116526		
AC 	FLS 	SS 
DATE	5/25/2017	

BY: _____
ROBERTA A. WAHL C28322
PITTSBURG UNIFIED SCHOOL DISTRICT
Highlands Elementary School
Window Replacement In-Kind
PLUM architects

**TITLE SIGNATURE PAGE
DOCUMENT 00 01 02-1**

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NOT USED

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NOT USED

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- 08/29/18: School Board presented Item on Intent to Advertise Project & Approval to Advertise for Bid
- 08/31/18 & 09/07/18: Advertise for Bid
- 09/04/18: Contract Documents available for Bidders
- 09/19/18: Pre-Bid Conference & Walkthrough @ 2:00 PM at HES
- 09/28/18: Final Due Date for Pre-Bid RFI's @ 5:00 PM
- 10/04/18: Bids Due @ 2:00 PM at District Admin. Bldg.
- 10/09/18: Bid Protest Period Ends @ 5:00 PM
- 10/10/18: Bid Results & Contract Award finalized information due @ 10:00 AM for 10/24/18 School Board Meeting
- 10/24/18: School Board Approval & Contract Award
- 10/25/18: Notice of Award & Contract Issued
- 11/13/18: Notice to Proceed Issued (tentative pending Contract turnaround time)
- 02/11/19: On-Site Construction Work Start Date
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- 09/06/19: Contract Completion Date
- 09/25/19 or 10/09/19: School Board Approval to file Notice of Completion

END OF DOCUMENT

NOTICE TO BIDDERS

1. Notice is hereby given that the governing board ("Board") of the Pittsburg Unified School District ("District") will receive sealed bids for the following project, Bid No. 18-007:

Highlands Elementary School Window In-Kind Replacement

2. The Project consists of:

Replacement of Existing Exterior Windows and Storefront Window Systems, including required Hazardous Materials Abatement Work

3. To bid on this Project, the Bidder is required to possess one or more of the following State of California contractors' license(s):

B

The Bidder's license(s) must remain active and in good standing throughout the term of the Contract.

4. To bid on this Project, the Bidder is required to be registered as a public works contractor with the Department of Industrial Relations pursuant to the Labor Code. The Bidder's registration must remain active throughout the term of the Contract.

5. Contract Documents will be available on or after Monday, September 04, 2018, for review, and/or purchase, at ABC Imaging, 1381 Franquette Avenue, Concord, CA 94520. Phone 925-674-0900, Fax 925-674-0993. In addition, Contract Documents are available for bidders' review at the following Builders' Exchanges:

- A. Bay Area Builder's Exchange (925) 685-8630
- B. Construction Bid Board (800) 424-3996
- C. Dodge Data & Analytics (877) 958-5062
- D. Peninsula Builders Exchange (650) 591-4486
- E. Sacramento Builders Exchange (916) 442-8991
- F. Solano-Napa Builders Exchange (707) 255-2515
- G. Builders of Santa Clara (408) 727-4000
- H. San Francisco Builders Exchange (415) 282-8220
- I. Marin Builders Exchange (415) 462-1220
- J. Builders Exchange of Stockton (209) 478-1005

6. Contract Documents, in hard copy format, are available for purchase for One Hundred Dollars (\$100.00), or in electronic format for Fifty Dollars (\$50.00) at ABC Imaging. This fee is non-refundable. Payment is to be made to ABC Imaging.

7. Sealed bids will be received until **2:00 p.m. (PDT), Thursday, October 04, 2018,** at the **District Administration Office, 2000 Railroad Avenue, Pittsburg, California, 94565** at or after which time the bids will be opened and publicly read aloud. Any bid that is submitted after this time shall be nonresponsive and returned to the bidder. Any claim by a bidder of error in its bid must be made in compliance with section 5100 et seq. of the Public Contract Code.
8. Pursuant to Public Contract Code section 20111.6, only prequalified bidders will be eligible to submit a bid for contracts \$1 million or more using or planning to use state bond funds. Any bid submitted by a bidder who is not prequalified shall be non-responsive and returned unopened to the bidder. Moreover, any bid listing subcontractors holding C-4, C-7, C-10, C-16, C-20, C-34, C-36, C-38, C-42, C-43 or C-46 licenses, if used, who have not been prequalified, shall be deemed nonresponsive and will not be considered. A prequalification application can be obtained from Ms. Liza Bautista at lbautista@pittsburg.k12.ca.us.
9. All bids shall be on the form provided by the District. Each bid must conform and be responsive to all pertinent Contract Documents, including, but not limited to, the Instructions to Bidders.
10. A bid bond by an admitted surety insurer on the form provided by the District, cash, or a cashier's check or a certified check, drawn to the order of the Pittsburg Unified School District, in the amount of ten percent (10%) of the total bid price, shall accompany the Bid Form and Proposal, as a guarantee that the Bidder will, within seven (7) calendar days after the date of the Notice of Award, enter into a contract with the District for the performance of the services as stipulated in the bid.
11. A mandatory pre-bid conference and site visit will be held on **Wednesday, September 19, 2018, at 2:00 p.m. (PDT)** at **Highlands Elementary School, 4141 Harbor Street, Pittsburg, California**. All participants are required to sign-in in front of the Administration Building. The site visit is expected to take approximately one (1) hour. Failure to attend or tardiness will render bid ineligible.
12. The successful Bidder shall be required to furnish a 100% Performance Bond and a 100% Payment Bond if it is awarded the Contract for the Work.
13. The successful Bidder may substitute securities for any monies withheld by the District to ensure performance under the Contract, in accordance with the provisions of section 22300 of the Public Contract Code.
14. The Contractor and all Subcontractors under the Contractor 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 section 1770 et seq. of the California Labor Code. Prevailing wage rates are also available from the District or on the Internet at: <http://www.dir.ca.gov>.

15. This Project is subject to labor compliance monitoring and enforcement by the Department of Industrial Relations pursuant to Labor Code section 1771.4 and subject to the requirements of Title 8 of the California Code of Regulations. The Contractor and all Subcontractors under the Contractor shall furnish electronic certified payroll records directly to the Labor Commissioner weekly and within ten (10) days of any request by the District or the Labor Commissioner. The successful Bidder shall comply with all requirements of Division 2, Part 7, Chapter 1, Articles 1-5 of the Labor Code.
16. The District has entered into a Project Stabilization Agreement that is applicable to this Project. For questions or assistance concerning the Project Stabilization Agreement, contact Mr. Larry Scott, (925) 473-2438, 3200 Loveridge Road, Pittsburg, California 94565.
17. The District shall award the Contract, if it awards it at all, to the lowest responsive, responsible bidder based on:
 - A. The base bid amount only.
18. The Board reserves the right to reject any and all bids and/or waive any irregularity in any bid received. If the District awards the Contract, the security of unsuccessful bidder(s) shall be returned within sixty (60) days from the time the award is made. Unless otherwise required by law, no bidder may withdraw its bid for ninety (90) days after the date of the bid opening.

END OF DOCUMENT

INSTRUCTIONS TO BIDDERS

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

Pittsburg Unified School District ("District") will evaluate information submitted by the apparent low Bidder and, if incomplete or unsatisfactory to District, Bidder's bid may be rejected at the sole discretion of District.

1. Bids are requested for a general construction contract, or work described in general, for the following project ("Project" or "Contract"):

Highlands Elementary School – Window In-Kind Replacement

2. A Bidder and its subcontractors must possess the appropriate State of California contractors' license and must maintain the license throughout the duration of the project. Bidders must also be registered as a public works contractor with the Department of Industrial Relations pursuant to the Labor Code. Bids submitted by a contractor who is not properly licensed or registered shall be deemed nonresponsive and will not be considered.
3. District will receive sealed bids from bidders as stipulated in the Notice to Bidders.
 - a. All bids must be sealed in an envelope, marked with the name and address of the Bidder, name of the Project, the Project Number and/or bid number, and time of bid opening.
 - b. Bids must be submitted to the District Administration Office by date and time shown in the Notice to Bidders.
 - c. Bids must contain all documents as required herein.
4. Bidders are advised that on the date that bids are opened, telephones will not be available at the District Offices for use by bidders or their representatives.
5. Bids will be opened at or after the time indicated for receipt of bids.
6. Bidders must submit bids on the documents titled Bid Form and Proposal, and must submit all other required District forms. Bids not submitted on the District's required forms shall be deemed nonresponsive and shall not be considered. Additional sheets required to fully respond to requested information are permissible.
7. Bidders shall not modify the Bid Form and Proposal or qualify their bids. Bidders shall not submit to the District a re-formatted, re-typed, altered, modified, or otherwise recreated version of the Bid Form and Proposal or other District-provided document.

8. Bids shall be clearly written and without erasure or deletions. District reserves the right to reject any bid containing erasures, deletions, or illegible contents.
9. Bidders must supply all information required by each Bid Document. Bids must be full and complete. District reserves the right in its sole discretion to reject any bid as nonresponsive as a result of any error or omission in the bid. Bidders must complete and submit all of the following documents with the Bid Form and Proposal:
 - a. Bid Bond on the District's form, or other security.
 - b. Designated Subcontractors List.
 - c. Site Visit Certification, if a site visit was required.
 - d. Non-Collusion Declaration.
 - e. Iran Contracting Act Certification, if contract value is \$1,000,000 or more.
10. Bidders must submit with their bids cash, a cashier's check or a certified check payable to District, or a bid bond by an admitted surety insurer of not less than ten percent (10%) of amount of Base Bid, plus all additive alternates ("Bid Bond"). If Bidder chooses to provide a Bid Bond as security, Bidder must use the required form of corporate surety provided by District. The Surety on Bidder's Bid Bond must be an insurer admitted in the State of California and authorized to issue surety bonds in the State of California. Bids submitted without necessary bid security will be deemed nonresponsive and will not be considered.
11. If Bidder to whom the Contract is awarded fails or neglects to enter into the Contract and submit required bonds, insurance certificates, and all other required documents, within **SEVEN (7)** calendar days after the date of the Notice of Award, District may deposit Bid Bond, cash, cashier's check, or certified check for collection, and proceeds thereof may be retained by District as liquidated damages for failure of Bidder to enter into Contract, in the sole discretion of District. It is agreed that calculation of damages District may suffer as a result of Bidder's failure to enter into the Contract would be extremely difficult and impractical to determine and that the amount of the Bidder's required bid security shall be the agreed and conclusively presumed amount of damages.
12. Bidders must submit with the bid the Designated Subcontractors List for those subcontractors who will perform any portion of Work, including labor, rendering of service, or specially fabricating and installing a portion of the Work or improvement according to detailed drawings contained in the plans and specifications, in excess of one half of one percent (0.5%) of total bid. Failure to submit this list when required by law shall result in bid being deemed nonresponsive and the bid will not be considered.
13. All of the listed subcontractors are required to be registered as a public works contractor with the Department of Industrial Relations pursuant to the Labor Code.
 - a. An inadvertent error in listing the California contractor license number on the Designated Subcontractors List shall not be grounds for filing a bid protest or

grounds for considering the bid nonresponsive if the correct contractor's license number is submitted to the District within 24 hours after the bid opening and the corrected number corresponds with the submitted name and location for that subcontractor.

- b. An inadvertent error listing an unregistered subcontractor shall not be grounds for filing a bid protest or grounds for considering the bid nonresponsive provided that any of the following apply:
 - (1) The subcontractor is registered prior to the bid opening.
 - (2) The subcontractor is registered and has paid the penalty registration fee within 24 hours after the bid opening.
 - (3) The subcontractor is replaced by another registered subcontractor pursuant to Public Contract Code section 4107.
14. If a mandatory pre-bid conference and site visit ("Site Visit") is required as referenced in the Notice to Bidders, then Bidders must submit the Site Visit Certification with their Bid. District will transmit to all prospective Bidders of record such Addenda as District in its discretion considers necessary in response to questions arising at the Site Visit. Oral statements shall not be relied upon and will not be binding or legally effective. Addenda issued by the District as a result of the Site Visit, if any, shall constitute the sole and exclusive record and statement of the results of the Site Visit.
15. Bidders shall submit the Non-Collusion Declaration with their bids. Bids submitted without the Non-Collusion Declaration shall be deemed nonresponsive and will not be considered.
16. The Contractor and all Subcontractors under the Contractor shall pay all workers on all work performed pursuant to the Contract not less than the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work as determined by the Director of the 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. Copies of the general prevailing rates of per diem wages for each craft, classification, or type of worker needed to execute the Contract, as determined by Director of the Department of Industrial Relations, are available upon request at the District's principal office. Prevailing wage rates are also available on the internet at <http://www.dir.ca.gov>.
17. Section 17076.11 of the Education Code requires school districts using funds allocated pursuant to the State of California School Facility Program for the construction and/or modernization of school building(s) to have a participation goal for disabled veteran business enterprises ("DVBE") of at least three percent (3%) per year of the overall dollar amount expended on projects that receive state funding or demonstrate its good faith effort to solicit DVBE participation in this Contract. In order to meet this requirement by demonstrating a good faith effort, Bidder must advertise for DVBE-certified subcontractors and suppliers before submitting its Bid. For any project that is at least partially state-funded, the lowest responsive

responsible Bidder awarded the Contract must submit certification of compliance with the procedures for implementation of DVBE contracting goals with its signed Agreement. DVBE Certification form is attached. Do not submit this form with your Bid.

18. Submission of bid signifies careful examination of Contract Documents and complete understanding of the nature, extent, and location of Work to be performed. Bidders must complete the tasks listed below as a condition to bidding, and submission of a bid shall constitute the Bidder's express representation to District that Bidder has fully completed the following:
- a. Bidder has visited the Site, if required, and has examined thoroughly and understood the nature and extent of the Contract Documents, Work, Site, locality, actual conditions, as-built conditions, and all local conditions and federal, state and local laws, and regulations that in any manner may affect cost, progress, performance, or furnishing of Work or that relate to any aspect of the means, methods, techniques, sequences, or procedures of construction to be employed by Bidder and safety precautions and programs incident thereto;
 - b. Bidder has conducted or obtained and has understood all examinations, investigations, explorations, tests, reports, and studies that pertain to the subsurface conditions, as-built conditions, underground facilities, and all other physical conditions at or contiguous to the Site or otherwise that may affect the cost, progress, performance, or furnishing of Work, as Bidder considers necessary for the performance or furnishing of Work at the Contract Sum, within the Contract Time, and in accordance with the other terms and conditions of Contract Documents, including specifically the provisions of the General Conditions; and no additional examinations, investigations, explorations, tests, reports, studies, or similar information or data are or will be required by Bidder for such purposes;
 - c. Bidder has correlated its knowledge and the results of all such observations, examinations, investigations, explorations, tests, reports, and studies with the terms and conditions of the Contract Documents;
 - d. Bidder has given the District prompt written notice of all conflicts, errors, ambiguities, or discrepancies that it has discovered in or among the Contract Documents and the actual conditions, and the written resolution(s) thereof by the District is/are acceptable to Bidder;
 - e. Bidder has made a complete disclosure in writing to the District of all facts bearing upon any possible interest, direct or indirect, that Bidder believes any representative of the District or other officer or employee of the District presently has or will have in this Contract or in the performance thereof or in any portion of the profits thereof;
 - f. Bidder must, prior to bidding, perform the work, investigations, research, and analysis required by this document and that Bidder represented in its Bid Form and Proposal and the Agreement that it performed prior to bidding. Contractor under this Contract is charged with all information and knowledge

that a reasonable bidder would ascertain from having performed this required work, investigation, research, and analysis. Bid prices must include entire cost of all work "incidental" to completion of the Work.

- g. Conditions Shown on the Contract Documents: Information as to underground conditions, as-built conditions, or other conditions or obstructions, indicated in the Contract Documents, e.g., on Drawings or in Specifications, has been obtained with reasonable care, and has been recorded in good faith. However, District only warrants, and Bidder may only rely, on the accuracy of limited types of information.
- (1) As to above-ground conditions or as-built conditions shown or indicated in the Contract Documents, there is no warranty, express or implied, or any representation express or implied, that such information is correctly shown or indicated. This information is verifiable by independent investigation and Bidder is required to make such verification as a condition to bidding. In submitting its Bid, Bidder shall rely on the results of its own independent investigation. In submitting its Bid, Bidder shall not rely on District-supplied information regarding above-ground conditions or as-built conditions.
 - (2) As to any subsurface condition shown or indicated in the Contract Documents, Bidder may rely only upon the general accuracy of actual reported depths, actual reported character of materials, actual reported soil types, actual reported water conditions, or actual obstructions shown or indicated. District is not responsible for the completeness of such information for bidding or construction; nor is District responsible in any way for any conclusions or opinions that the Bidder has drawn from such information; nor is the District responsible for subsurface conditions that are not specifically shown (for example, District is not responsible for soil conditions in areas contiguous to areas where a subsurface condition is shown).
- h. Conditions Shown in Reports and Drawings Supplied for Informational Purposes: Reference is made to the document entitled Geotechnical Data, and the document entitled Existing Conditions, for identification of:
- (1) Subsurface Conditions: Those reports of explorations and tests of subsurface conditions at or contiguous to the Site that have been utilized by Architect in preparing the Contract Documents; and
 - (2) Physical Conditions: Those drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site that has been utilized by Architect in preparing the Contract Documents.
 - (3) These reports and drawings are **not** Contract Documents and, except for any "technical" data regarding subsurface conditions specifically identified in Geotechnical Data and Existing Conditions, and underground facilities data, Bidder may not in any manner rely on the information in these reports and drawings. Subject to the foregoing,

Bidder must make its own independent investigation of all conditions affecting the Work and must not rely on information provided by District.

19. Bids shall be based on products and systems specified in Contract Documents or listed by name in Addenda. Whenever in the Specifications any materials, process, or article is indicated or specified by grade, patent, or proprietary name, or by name of manufacturer, that Specification shall be deemed to be followed by the words "or equal." Bidder may, unless otherwise stated, offer any material, process, or article that shall be substantially equal or better in every respect to that so indicated or specified. The District is not responsible and/or liable in any way for a Contractor's damages and/or claims related, in any way, to that Contractor's basing its bid on any requested substitution that the District has not approved in advance and in writing. Contractors and materials suppliers who submit requests for substitutions prior to the award of the Contract must do so in writing and in compliance with Public Contract Code section 3400. All requests must comply with the following:
 - a. District must receive any notice of request for substitution of a specified item a minimum of **TEN (10)** calendar days prior to bid opening. The Successful Bidder will not be allowed to substitute specified items unless properly noticed.
 - b. Within 35 days after the date of the Notice of Award, the Successful Bidder shall submit data substantiating the request(s) for all substitution(s) containing sufficient information to assess acceptability of product or system and impact on Project, including, without limitation, the requirements specified in the Special Conditions and the Specifications. Insufficient information shall be grounds for rejection of substitution.
 - c. Approved substitutions, if any, shall be listed in Addenda. District reserves the right not to act upon submittals of substitutions until after bid opening.
 - d. Substitutions may be requested after Contract has been awarded only if indicated in and in accordance with requirements specified in the Special Conditions and the Specifications.
20. Bidders may examine any available "as-built" drawings of previous work by giving District reasonable advance notice. District will not be responsible for accuracy of "as-built" drawings. The document entitled Existing Conditions applies to all supplied "as-built" drawings.
21. All questions about the meaning or intent of the Contract Documents are to be directed via email to the Architect to Rebecca Guarda at PLUM Architects at rebecca@plumarchitects.com with a copy to the District to E. Keith Holtlander at kholtlander@pittsburg.k12.ca.us. Interpretations or clarifications considered necessary by the District in response to such questions will be issued in writing by Addenda and emailed, faxed, mailed, or delivered to all parties recorded by the District as having received the Contract Documents or posted on the District's website at www.pittsburg.k12.ca.us. Questions received less than **SEVEN (7)** calendar days prior to the date for opening bids may not be answered. Only

questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

22. Addenda may also be issued to modify other parts of the Contract Documents as deemed advisable by the District.
23. Each Bidder must acknowledge each Addendum in its Bid Form and Proposal by number or its Bid shall be considered non-responsive. Each Addendum shall be part of the Contract Documents. A complete listing of Addenda may be secured from the District.
24. This Contract may include alternates. Alternates are defined as alternate products, materials, equipment, systems, methods, or major elements of the construction that may, at the District's option and under terms established in the Contract and pursuant to section 20103.8 of the Public Contract Code, be selected for the Work.
25. The District shall award the Contract, if it awards it at all, to the lowest responsive responsible bidder based on the criteria as indicated in the Notice to Bidders. In the event two or more responsible bidders submit identical bids, the District shall select the Bidder to whom to award the Contract by lot.
26. Time for Completion: District may issue a Notice to Proceed within **NINETY (90)** days from the date of the Notice of Award. Once Contractor has received the Notice to Proceed, Contractor shall complete the Work within the period of time indicated in the Contract Documents.
 - a. In the event that the District desires to postpone issuing the Notice to Proceed beyond this 90-day period, it is expressly understood that with reasonable notice to the Contractor, the District may postpone issuing the Notice to Proceed.
 - b. It is further expressly understood by Contractor that Contractor shall not be entitled to any claim of additional compensation as a result of the postponement of the issuance of the Notice to Proceed beyond a 90-day period. If the Contractor believes that a postponement of issuance of the Notice to Proceed will cause a hardship to the Contractor, the Contractor may terminate the Contract. Contractor's termination due to a postponement beyond this 90-day period shall be by written notice to District within **TEN (10)** calendar days after receipt by Contractor of District's notice of postponement.
 - c. It is further understood by the Contractor that in the event that Contractor terminates the Contract as a result of postponement by the District, the District shall only be obligated to pay Contractor for the Work that Contractor had performed at the time of notification of postponement and which the District had in writing authorized Contractor to perform prior to issuing a Notice to Proceed.
 - d. Should the Contractor terminate the Contract as a result of a notice of postponement, District shall have the authority to award the Contract to the next lowest responsive responsible bidder.

27. The Bidder to whom Contract is awarded shall execute and submit the following documents by 5:00 p.m. of the **SEVENTH (7th)** calendar day following the date of the Notice of Award. Failure to properly and timely submit these documents entitles District to reject the bid as nonresponsive.
- a. Agreement: To be executed by successful Bidder. Submit four (4) copies, each bearing an original signature.
 - b. Escrow of Bid Documentation: This must include all required documentation. See the document titled Escrow Bid Documentation for more information.
 - c. Performance Bond (100%): On the form provided in the Contract Documents and fully executed as indicated on the form.
 - d. Payment Bond (Contractor's Labor and Material Bond) (100%): On the form provided in the Contract Documents and fully executed as indicated on the form.
 - e. Insurance Certificates and Endorsements as required.
 - f. Workers' Compensation Certification.
 - g. Prevailing Wage and Related Labor Requirements Certification.
 - h. Disabled Veteran Business Enterprise Participation Certification.
 - i. Drug-Free Workplace Certification.
 - j. Tobacco-Free Environment Certification.
 - k. Hazardous Materials Certification.
 - l. Lead-Based Materials Certification.
 - m. Imported Materials Certification.
 - n. Criminal Background Investigation/Fingerprinting Certification.
 - o. Buy American Certification.
28. Any bid protest by any Bidder regarding any other bid must be submitted in writing to the District, before 5:00 p.m. of the **THIRD (3rd)** business day following bid opening.
- a. Only a Bidder who has actually submitted a bid, and who could be awarded the Contract if the bid protest is upheld, is eligible to submit a bid protest. Subcontractors are not eligible to submit bid protests. A Bidder may not rely on the bid protest submitted by another Bidder.

- b. A bid protest must contain a complete statement of any and all bases for the protest and all supporting documentation. Materials submitted after the bid protest deadline will not be considered.
 - c. The protest must refer to the specific portions of all documents that form the basis for the protest.
 - (1) Without limitation to any other basis for protest, an inadvertent error in listing the California contractor's license number on the Designated Subcontractors List shall not be grounds for filing a bid protest or grounds for considering the bid nonresponsive if the correct contractor's license number is submitted to the District within 24 hours after the bid opening and the corrected number corresponds with the submitted name and location for that subcontractor.
 - (2) Without limitation to any other basis for protest, an inadvertent error listing an unregistered subcontractor shall not be grounds for filing a bid protest or grounds for considering the bid nonresponsive provided that any of the following apply:
 - (i) The subcontractor is registered prior to the bid opening.
 - (ii) The subcontractor is registered and has paid the penalty registration fee within 24 hours after the bid opening.
 - (iii) The subcontractor is replaced by another registered subcontractor pursuant to Public Contract Code section 4107.
 - d. The protest must include the name, address and telephone number of the person representing the protesting party.
 - e. The party filing the protest must concurrently transmit a copy of the protest and any attached documentation to all other parties with a direct financial interest that may be adversely affected by the outcome of the protest. Such parties shall include all other bidders or proposers who appear to have a reasonable prospect of receiving an award depending upon the outcome of the protest.
 - f. The procedure and time limits set forth in this paragraph are mandatory and are each bidder's sole and exclusive remedy in the event of bid protest. Failure to comply with these procedures shall constitute a waiver of any right to further pursue the bid protest, including filing a Government Code Claim or legal proceedings.
29. District reserves the right to reject any or all bids, including without limitation the right to reject any or all nonconforming, nonresponsive, unbalanced, or conditional bids, to re-bid, and to reject the bid of any bidder if District believes that it would not be in the best interest of the District to make an award to that bidder, whether because the bid is not responsive or the bidder is unqualified or of doubtful financial ability or fails to meet any other pertinent standard or criteria established by District. District also reserves the right to waive any inconsequential deviations or

irregularities in any bid. For purposes of this paragraph, an "unbalanced bid" is one having nominal prices for some work items and/or enhanced prices for other work items.

30. Discrepancies between written words and figures, or words and numerals, will be resolved in favor of figures or numerals.
31. It is the policy of the District that no qualified person shall be excluded from participating in, be denied the benefits of, or otherwise be subjected to discrimination in any consideration leading to the award of contract, based on race, color, gender, sexual orientation, political affiliation, age, ancestry, religion, marital status, national origin, medical condition or disability. The Successful Bidder and its subcontractors shall comply with applicable federal and state laws, including, but not limited to the California Fair Employment and Housing Act, beginning with Government Code section 12900, and Labor Code section 1735.
32. Prior to the award of Contract, District reserves the right to consider the responsibility of the Bidder. District may conduct investigations as District deems necessary to assist in the evaluation of any bid and to establish the responsibility, including, without limitation, qualifications and financial ability of Bidders, proposed subcontractors, suppliers, and other persons and organizations to perform and furnish the Work in accordance with the Contract Documents to District's satisfaction within the prescribed time.

END OF DOCUMENT

DOCUMENT 00 21 13.1

BIDDER INFORMATION AND FORMS

- Current Prequalified Contractors' Listing

END OF DOCUMENT

PUSD - PREQUALIFIED CONTRACTORS - 2018

Vendor Name	Vendor Type	Type of Work Performed with own forces	License Type	CSLB LICENCE	DIR NUMBER
Alessandro Electric, Inc.	Specialty Contractor	General Electrical, Low Voltage, Communications, Cabling	C-7, C10	867775	1000003067
Alten Construction	General Engineering & Building Contractor	Earthwork, Demolition, Concrete, Framing, Rough Carpentry, Masonry	A, B	705713	1000000530
Arntz Builders, Inc.	General Engineering & Building Contractor	Demolition, Concrete, Rough & Finish Carpentry	A, B	856393	1000003147
Balfour Beatty Construction LLC	General Engineering & Building Contractor	Construction Management & Safety	A, B	979126	1000000529
Bay Cities Fire Protection, Inc.	General Building & Specialty Contractor	Fire Protection	B, C16	731222	1000045613
Bay City Mechanical Inc	Specialty Contractor	Mechanical, HVAC, Sheet Metal, Plumbing	C-4, C20, C36, C43	645126	1000007529
Bayview Environmental Services, Inc.	General Building & Specialty Contractor	Hazardous Materials Abatement & Removal, Demolition	ASB, B, C21, C22, HAZ	684341	1000002423
Bell Products, Inc.	General Engineering, Building & Specialty Contractor	Mechanical, HVAC, Sheet Metal, Plumbing	A, B, C-4, C20, C36, C43	171534	1000000656
Best Contracting Services, Inc.	General Engineering, Building & Specialty Contractor	Roofing, Waterproofing, Sheet Metal, Glazing, Wall Panels	A, B, C17, C39, C43	456263	1000000563
BHM Construction Inc.	General Engineering & Building Contractor	Demolition, Masonry, Carpentry	A, B	900404	1000000064
Bockmon & Woody Electric Co. Inc.	Specialty Contractor	General Electrical, High Voltage, Solar	C10	588308	1000002789
C. Overaa & Co.	General Engineering & Building Contractor	Demolition, Site Grading & Preparation, Excavation, Concrete, Framing, Rough & Finish Carpentry, Cabinetry & Millwork, Mechanical & Piping	A, B	106793	1000000871
Coastal Mountain Electric	Specialty Contractor	General Electrical	C10	507105	1000008522
Collins Electrical Company, Inc.	General Engineering, Building & Specialty Contractor	General Electrical	A, B, C10, C31	115427	1000000184
Color New Co.	General Building & Specialty Contractor	Painting & Minor Renovation Work	B, C33	818650	1000001623
D7 Roofing Services	Specialty Contractor	Roofing	C39	746471	1000008496
DDK Mechanical, Inc.	General Building & Specialty Contractor	HVAC, Sheet Metal, Plumbing	B, C20, C36, C43	855723	1000002411
Del Monte Electric	Specialty Contractor	General Electrical	C10	161955	1000000268
Digital Design Communications	General Building & Specialty Contractor	General Electrical, Low Voltage, Communications	B, C10	785247	1000002624
Dinelli Plumbing Incorporated	Specialty Contractor	General Plumbing	C36	801472	1000000999
Dowdle & Sons Mechanical Inc.	General Engineering, Building & Specialty Contractor	Mechanical, HVAC, Plumbing	A, B, C-4, C-20, C36	542743	1000000606
E. F. Brett & Company, Inc.	General Engineering & Building Contractor	Sewer, Carpentry, General Labor, Concrete, Misc. Specialities	A, B	924636	1000000490
First Service	Specialty Contractor	Indoor & Outdoor Athletic Equipment, Spectator Seating, Scoreboards, Lockers, Projection Screens	C61, D34	823878	1000010190
Flint Builders Inc.	General Engineering & Building Contractor	General Carpentry, Doors, Frames & Hardware	A, B	982487	1000000005
George E. Masker Inc.	Specialty Contractor	Painting, Specialty Coatings, Wallcovering, Intumescent Fireproofing	C33	219160	1000000521

PUSD - PREQUALIFIED CONTRACTORS - 2018

Hydra Ventures, Inc. dba Cal Pacific Systems	General Engineering, Building & Specialty Contractor	Site Utilities, HVAC, Hydronic Systems, Plumbing	A, B, C20, C36	924244	1000004768
JL Modular	Modular Bldgs.	Modular Buildings, Concrete, Rough & Finish Carpentry	B	761270	1000005631
Jeff Luchetti Construction, Inc.	General Contractor	Concrete, Rough & Finish Carpentry	B	761270	1000005631
K.S. Kruse Plumbing Company	Specialty Contractor	General Plumbing	C36	512710	1000000600
Lathrop Construction Associates Inc.	General Engineering & Building Contractor	Carpentry, Concrete Foundations, Specialties	A, B	415981	1000000073
MBS Engineering	General Engineering & Specialty Contractor	Natural Gas Piping, Leak Detection, Repairs, Maintenance	A, C36	990872	1000003509
Martinez Sheet Metal	General Building & Specialty Contractor	HVAC, Sheet Metal, Plumbing, Refrigeration	B, C-4, C20, C36, C38, C43	222277	1000000471
Mar Con Builders, Inc.	General Building & Specialty Contractor	General Construction, Cabinet, Millwork & Finish Carpentry, Drywall, Flooring	B, C-6, C-9, C15	829636	1000049865
McGuire & Hester	General Engineering, Building & Specialty Contractor	Grading, Paving, Concrete, Underground & Landscaping	A, B, C21, C27, C31, HAZ	95879	1000000033
NetXperts, Inc.	Specialty Contractor	Cisco Systems Hardware/Software, Low Voltage	C-7, C10	869161	1000003207
Northern CA Painting	Painting	Painting	C33	649324	1000035581
Opening Technologies, Inc.	Specialty Contractor	Door, Key and Access Control System	C28	835076	1000002569
OWR Mechanical dba Monarch Mechanical	General Building & Specialty Contractor	HVAC, Sheet Metal, Plumbing	B, C20, C36, C43	736565	1000006144
Pacific Coast General Engineering	General Engineering & Specialty Contractor	Grading, Paving, Underground Concrete, Hazardous Materials Removal	A, HAZ	894723	1000003642
Paving Construction Services Inc.	Asphalt Maintenance	Paving	C-12	798808	1000026921
Pacific Metro Electric	General Building & Specialty Contractor	General Electrical	B, C10	701614	1000000586
Point 1 Electrical Systems, Inc	General Building & Specialty Contractor	General Electrical, Low Voltage	B, C-7, C10	745827	1000000897
Presidential Fire Protection, Inc.	General Building & Specialty Contractor	Fire Protection	B, C-16	847133	1000003447
Project Built, Inc. DBA Icon Construction	General Contractor	General Contractor	B	1038439	1000059171
S. W. Allen Construction, Inc.	General Engineering, Building & Specialty Contractor	Demo, Concrete, Roofing & Carpentry	A, ASB, B, C-39	646849	1000001030
San Francisco Fire Protection, Inc.	Fire Alarm	Fire Alarm Installation	C10	806216	1000026919
Sandstone Construction Services	General Engineering Contractor	Demolition, Lead & Mold Abatement and Removal	A	878348	1000019898
Silver Creek Industries, Inc.	General Building & Specialty Contractor	Design and Construction of Modular Buildings	B, C10, C20, C27, C36	855259	1000002864

PUSD - PREQUALIFIED CONTRACTORS - 2018

Smith & Sons Electric Inc.	Specialty Contractor	General Electrical	C10	437138	1000000480
Southwest Construction & Property Management	General Engineering, Building & Specialty Contractor	General Engineering & Construction, Rough & Finish Carpentry, Roofing, Seismic Retrofitting, Minor Alterations	A, ASB, B, C39	751467	1000003460
Sposeto Engineering Inc.	General Building & Specialty Contractor	Site Work, Concrete & Asphalt Paving	A, C-8	310292	1000005234
Swank Construction, Inc.	General Engineering & Building Contractor	Earthwork, Concrete (Structual & Non-Structual), Rough & Finish Carpentry	A, B	559490	1000025388
Swinerton Builders	General Engineering, Building & Specialty Contractor	General Construction, Concrete, Millwork, Doors & Hardware, Framing, Drywall	A, ASB, B, C-2, C-4, C-5, C-6, C-8, C-9, C10, C12, C16, C20, C23, C29, C33, C35, C36, C38, C39, C42, C46, C50, C51, C55, D34	92	1000000296
Trahan Mechanical, Inc.	Specialty Contractor	HVAC, Sheet Metal	C20, C43	774154	1000006155
USS CAL Builders, Inc.	General Contractor	General Construction, Plumbing, Electrical	A, B, C10, C31, C36	654454	1000003215
W.A. Thomas Co. Inc.	General Engineering & Building Contractor	Rough Carpentry, Finish Carpentry, Structural Concrete, Soft Demolition	A, B	285617	1000000299
Walker Telecomm Inc.	Specialty Contractor	Communications , Voice & Data, Low Voltage	C-7, C10	953866	1000000137
Waters Moving & Storage	Specialty Contractor	Moving & Storage	MOVING	CALT 189214	1000008657

EXISTING CONDITIONS

1. Summary

This document describes existing conditions at or near the Project, and use of information available regarding existing conditions. This document is **not** part of the Contract Documents. See General Conditions for definition(s) of terms used herein.

2. Reports and Information on Existing Conditions

- a. Documents providing a general description of the Site and conditions of the Work may have been collected by Pittsburg Unified School District ("District"), its consultants, contractors, and tenants. These documents may, but are not required to, include previous contracts, contract specifications, tenant improvement contracts, as-built drawings, utility drawings, and information regarding underground facilities.
- b. Information regarding existing conditions may be inspected at the District offices or the Construction Manager's offices, if any, and copies may be obtained at cost of reproduction and handling upon Bidder's agreement to pay for such copies. These reports, documents, and other information are **not** part of the Contract Documents. These reports, documents, and other information do **not** excuse Contractor from fulfilling Contractor's obligation to independently investigate any or all existing conditions or from using reasonable prudent measures to avoid damaging existing improvements.
- c. Information regarding existing conditions may also be included in the Project Manual, but shall **not** be considered part of the Contract Documents.
- d. Prior to commencing this Work, Contractor and the District's representative shall survey the Site to document the condition of the Site. Contractor will record the survey in digital videotape format and provide an electronic copy to the District within fourteen (14) days of the survey.
- e. Contractor may also document any pre-existing conditions in writing, provided that both the Contractor and the District's representative agree on said conditions and sign a memorandum documenting the same.
- f. The reports and other data or information regarding existing conditions and underground facilities at or contiguous to the Project are the following:
 - (1) Original Construction Drawings.
 - (2) Hazardous Material Report(s).

3. Use of Information

- a. Information regarding existing conditions was obtained only for use of District and its consultants, contractors, and tenants for planning and design and is **not** part of the Contract Documents.
- b. District does not warrant, and makes no representation regarding, the accuracy or thoroughness of any information regarding existing conditions. Bidder represents and agrees that in submitting a bid it is not relying on any information regarding existing conditions supplied by District.
- c. Under no circumstances shall District be deemed to warrant or represent existing above-ground conditions, as-built conditions, or other actual conditions, verifiable by independent investigation. These conditions are verifiable by Bidder by the performance of its own independent investigation that Bidder must perform as a condition to bidding and Bidder should not and shall not rely on this information or any other information supplied by District regarding existing conditions.
- d. Any information shown or indicated in the reports and other data supplied herein with respect to existing underground facilities at or contiguous to the Project may be based upon information and data furnished to District by the District's employees and/or consultants or builders of such underground facilities or others. District does not assume responsibility for the completeness of this information, and Bidder is solely responsible for any interpretation or conclusion drawn from this information.
- e. District shall be responsible only for the general accuracy of information regarding underground facilities, and only for those underground facilities that are owned by District, and only where Bidder has conducted the independent investigation required of it pursuant to the Instructions to Bidders, and discrepancies are not apparent.

4. Investigations/Site Examinations

- a. Before submitting a bid, each Bidder is responsible for conducting or obtaining any additional or supplementary examinations, investigations, explorations, tests, studies, and data concerning conditions (surface, subsurface, and underground facilities) at or contiguous to the Site or otherwise, that may affect cost, progress, performance, or furnishing of Work or that relate to any aspect of the means, methods, techniques, sequences, or procedures of construction to be employed by Bidder and safety precautions and programs incident thereto or that Bidder deems necessary to determine its Bid for performing and furnishing the Work in accordance with the time, price, and other terms and conditions of Contract Documents.
- b. On request, District will provide each Bidder access to the Site to conduct such examinations, investigations, explorations, tests, and studies, as each Bidder deems necessary for submission of a bid. Bidders must fill all holes and clean up and restore the Site to its former condition upon completion of its explorations, investigations, tests, and studies. Such investigations and

Site examinations may be performed during any and all Site visits indicated in the Notice to Bidders and only under the provisions of the Contract Documents, including, but not limited to, proof of insurance and obligation to indemnify against claims arising from such work, and District's prior approval.

END OF DOCUMENT

BID FORM AND PROPOSAL

Pittsburg Unified School District ("District" or "Owner")

From: _____
(Proper Name of Bidder)

The undersigned declares that Bidder has read and understands the Contract Documents, including, without limitation, the Notice to Bidders and the Instructions to Bidders, and agrees and proposes to furnish all necessary labor, materials, and equipment to perform and furnish all work in accordance with the terms and conditions of the Contract Documents, including, without limitation, the Drawings and Specifications of Bid No. 18-007.

PROJECT: **Highlands Elementary School - Window In-Kind Replacement**

("Project" or "Contract") and will accept in full payment for that Work the following total lump sum amount, all taxes included:

_____ dollars \$ _____
<i>BASE BID</i>
<i>Bidder acknowledges and agrees that the Base Bid accounts for any and all Allowance(s), Total Cost for Unit Prices, and OCIP excluded costs.</i>

Additive/Deductive Alternates:

NOT USED

Additional Detail Regarding Calculation of Base Bid

1. **Unit Prices.** The Bidder's Base Bid includes the following unit prices, which the Bidder must provide and the District may, at its discretion, utilize in valuing additive and/or deductive change orders (Unit Prices shall include all labor, materials, services, profit, overhead, insurance, bonds, taxes, and all other incidental costs of Contractor, subcontractors, and suppliers):

SCHEDULE OF UNIT PRICES

<u>Item No.</u>	<u>Description</u>	<u>Unit of Measure</u>	<u>Unit Price</u>	<u>Total Cost = Unit Price x Estimated Quantity (Included in Base Bid)</u>
1	Removal of additional exterior redwood trim coated with lead-based paint (LBP) to facilitate repair of dry-rot not already covered in within the Contract Documents	Daily Rate	\$	\$
2	Drill, core, anchor and/or affix to exterior redwood trim coated with LBP	Daily Rate	\$	\$
3	Removal of additional stucco/plaster coated with LBP to support removal and replacement of aluminum windows, and to facilitate repair work not already covered within the Contract Documents	Daily Rate	\$	\$
4	Remove, drill, core, anchor, attach and/or affix to exterior stucco/plaster coated with LBP	Daily Rate	\$	\$
	Total Unit Cost Bid Amount			\$

Where scope of Work is decreased, all Work pertaining to the item, whether specifically stated or not, shall be omitted, and where scope of Work is increased, all work pertaining to that item required to render same ready for use on the Project in accordance with intentions of the Drawings and Specifications shall be included in the above agreed-upon price amount.

2. **Allowance.** The Bidders' Base Bid shall include a **\$50,000.00 Allowance** for additional unforeseen wood dry-rot repair.

The above allowance shall only be allocated for unforeseen items relating to the Work. Contractor shall not bill for or be due any portion of this allowance unless the District has identified specific work, Contractor has submitted a price for that Work or the District has proposed a price for that work, the District has accepted the costs for that Work, and the District has prepared a Change Order incorporating that Work. Contractor hereby authorizes the District to execute a unilateral deductive Change Order at or near the end of the Project for all or any portion of the allowance not allocated.

3. The undersigned has reviewed the Work outlined in the Contract Documents and fully understands the scope of Work required in this Proposal, understands the construction and project management function(s) is described in the Contract Documents, and that each Bidder who is awarded a contract shall be in fact a prime contractor, not a subcontractor, to the District, and agrees that its Proposal, if accepted by the District, will be the basis for the Bidder to enter into a contract with the District in accordance with the intent of the Contract Documents.
4. The undersigned has notified the District in writing of any discrepancies or omissions or of any doubt, questions, or ambiguities about the meaning of any of the Contract Documents, and has contacted the Construction Manager before bid date to verify the issuance of any clarifying Addenda.
5. The undersigned agrees to commence work under this Contract on the date established in the Contract Documents and to complete all work within the time specified in the Contract Documents.
6. The liquidated damages clause of the General Conditions and Agreement is hereby acknowledged.
7. It is understood that the District reserves the right to reject this bid and that the bid shall remain open to acceptance and is irrevocable for a period of ninety (90) days.
8. The following documents are attached hereto:
 - Bid Bond on the District's form or other security
 - Designated Subcontractors List
 - Site Visit Certification
 - Non-Collusion Declaration
 - Iran Contracting Act Certification

Receipt and acceptance of the following Addenda is hereby acknowledged:

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

9. Bidder acknowledges that the license required for performance of the Work is a B license.
10. The undersigned hereby certifies that Bidder is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed on the Work.
11. Bidder specifically acknowledges and understands that if it is awarded the Contract, that it shall perform the Work of the Project while complying with all requirements of the Department of Industrial Relations.
12. The Bidder represents that it is competent, knowledgeable, and has special skills with respect to the nature, extent, and inherent conditions of the Work to be performed. Bidder further acknowledges that there are certain peculiar and inherent conditions existent in the construction of the Work that may create, during the Work, unusual or peculiar unsafe conditions hazardous to persons and property.
13. Bidder expressly acknowledges that it is aware of such peculiar risks and that it has the skill and experience to foresee and to adopt protective measures to adequately and safely perform the Work with respect to such hazards.
14. Bidder expressly acknowledges that it is aware that if a false claim is knowingly submitted (as the terms "claim" and "knowingly" are defined in the California False Claims Act, Gov. Code, § 12650 et seq.), the District will be entitled to civil remedies set forth in the California False Claim Act. It may also be considered fraud and the Contractor may be subject to criminal prosecution.
15. The undersigned Bidder certifies that it is, at the time of bidding, and shall be throughout the period of the Contract, licensed by the State of California to do the type of work required under the terms of the Contract Documents and registered as a public works contractor with the Department of Industrial Relations. Bidder further certifies that it is regularly engaged in the general class and type of work called for in the Contract Documents.

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

Dated this _____ day of _____ 20 ____

Name of Bidder: _____

Type of Organization: _____

Signed by: _____

Title of Signer: _____

Address of Bidder: _____

Taxpayer Identification No. of Bidder: _____

Telephone Number: _____

Fax Number: _____

E-mail: _____ Web Page: _____

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

No.: _____ Class: _____ Expiration Date: _____

No.: _____ Class: _____ Expiration Date: _____

Public Works Contractor Registration No.: _____

END OF DOCUMENT

BID BOND

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

KNOW ALL PERSONS BY THESE PRESENTS:

That the undersigned, _____, as Principal ("Principal"),
and _____, as
Surety ("Surety"), a corporation organized and existing under and by virtue of the laws of
the State of California and authorized to do business as a surety in the State of California,
are held and firmly bound unto the Pittsburg Unified School District ("District") of Contra
Costa County, State of California, as Obligee, in an amount equal to ten percent (10%) of
the Base Bid plus alternates, in the sum of

_____ Dollars (\$ _____)

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

THE CONDITION OF THIS OBLIGATION IS SUCH that whereas the Principal has submitted a
bid to the District for all Work specifically described in the accompanying bid for the
following project: **Highlands Elementary School – Window In-Kind Replacement**
("Project" or "Contract").

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

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

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

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

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

Principal

By

Surety

By

Name of California Agent of Surety

Address of California Agent of Surety

Telephone Number of California Agent of Surety

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

END OF DOCUMENT

DESIGNATED SUBCONTRACTORS LIST
(Public Contact Code Sections 4100-4114)

PROJECT: **Highlands Elementary School – Window In-Kind Replacement**

Bidder acknowledges and agrees that it must clearly set forth below the name, location and California contractor license number of each subcontractor who will perform work or labor or render service to the Bidder in or about the construction of the Work or who will specially fabricate and install a portion of the Work according to detailed drawings contained in the plans and specifications in an amount in excess of one-half of one percent (0.5%) of Bidder’s total Base Bid and the kind of Work that each will perform. Vendors or suppliers of materials only do not need to be listed.

Bidder acknowledges and agrees that, if Bidder fails to list as to any portion of Work, or if Bidder lists more than one subcontractor to perform the same portion of Work, Bidder must perform that portion itself or be subjected to penalty under applicable law. In case more than one subcontractor is named for the same kind of Work, state the portion of the kind of Work that each subcontractor will perform.

If alternate bid(s) is/are called for and Bidder intends to use subcontractors different from or in addition to those subcontractors listed for work under the Base Bid, Bidder must list subcontractors that will perform Work in an amount in excess of one half of one percent (0.5%) of Bidder’s total Base Bid plus alternate(s).

If further space is required for the list of proposed subcontractors, attach additional copies of page 2 showing the required information, as indicated below.

Subcontractor Name: _____

CA Cont. Lic. #: _____ Location: _____

Portion of Work: _____

Subcontractor Name: _____

CA Cont. Lic. #: _____ Location: _____

Portion of Work: _____

Subcontractor Name: _____

CA Cont. Lic. #: _____ Location: _____

Portion of Work: _____

Subcontractor Name: _____

CA Cont. Lic. #: _____ Location: _____

Portion of Work: _____

Subcontractor Name: _____

CA Cont. Lic. #: _____ Location: _____

Portion of Work: _____

Subcontractor Name: _____

CA Cont. Lic. #: _____ Location: _____

Portion of Work: _____

Subcontractor Name: _____

CA Cont. Lic. #: _____ Location: _____

Portion of Work: _____

Subcontractor Name: _____

CA Cont. Lic. #: _____ Location: _____

Portion of Work: _____

Subcontractor Name: _____

CA Cont. Lic. #: _____ Location: _____

Portion of Work: _____

Subcontractor Name: _____

CA Cont. Lic. #: _____ Location: _____

Portion of Work: _____

Subcontractor Name: _____

CA Cont. Lic. #: _____ Location: _____

Portion of Work: _____

Date: _____

Proper Name of Bidder: _____

Signature: _____

Print Name: _____

Title: _____

END OF DOCUMENT

SITE VISIT CERTIFICATION

TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID
IF SITE VISIT WAS MANDATORY

PROJECT: **Highlands Elementary School – Window In-Kind Replacement**

Check option that applies:

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

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

Bidder fully indemnifies the Pittsburg Unified School District, its Architect, its Engineer, its Construction Manager, and all of their respective officers, agents, employees, and consultants from any damage, or omissions, related to conditions that could have been identified during my visit and/or the Bidder's representative's visit to the Site.

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

Date: _____

Proper Name of Bidder: _____

Signature: _____

Print Name: _____

Title: _____

END OF DOCUMENT

**NON-COLLUSION DECLARATION
(Public Contract Code Section 7106)**

The undersigned declares:

I am the _____ of _____, the party making the foregoing bid.
[Title] [Name of Firm]

The bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation. The bid is genuine and not collusive or sham. The bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid. The bidder has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or to refrain from bidding. The bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder. All statements contained in the bid are true. The bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof, to effectuate a collusive or sham bid, and has not paid, and will not pay, any person or entity for such purpose.

Any person executing this declaration on behalf of a bidder that is a corporation, partnership, joint venture, limited liability company, limited liability partnership, or any other entity, hereby represents that he or she has full power to execute, and does execute, this declaration on behalf of the bidder.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that this declaration is executed on _____,
[Date]

at _____, _____.
[City] [State]

Date: _____

Proper Name of Bidder: _____

Signature: _____

Print Name: _____

Title: _____

END OF DOCUMENT

IRAN CONTRACTING ACT CERTIFICATION
(Public Contract Code Sections 2202-2208)

BID NO.: 18-007 between Pittsburg Unified School District ("District") and _____
_____ ("Contractor" or "Bidder").

Prior to bidding on or submitting a proposal for a contract for goods or services of \$1,000,000 or more, the bidder/proposer must submit this certification pursuant to Public Contract Code section 2204.

The bidder/proposer must complete **ONLY ONE** of the following two options. To complete OPTION 1, check the corresponding box **and** complete the certification below. To complete OPTION 2, check the corresponding box, complete the certification below, and attach documentation demonstrating the exemption approval.

- OPTION 1.** Bidder/Proposer is not on the current list of persons engaged in investment activities in Iran created by the California Department of General Services ("DGS") pursuant to Public Contract Code section 2203(b), and we are not a financial institution extending twenty million dollars (\$20,000,000) or more in credit to another person, for 45 days or more, if that other person will use the credit to provide goods or services in the energy sector in Iran and is identified on the current list of persons engaged in investment activities in Iran created by DGS.
- OPTION 2.** Bidder/Proposer has received a written exemption from the certification requirement pursuant to Public Contract Code sections 2203(c) and (d). *A copy of the written documentation demonstrating the exemption approval is included with our bid/proposal.*

CERTIFICATION:

I, the official named below, CERTIFY UNDER PENALTY OF PERJURY, that I am duly authorized to legally bind the bidder/proposer to the OPTION selected above. This certification is made under the laws of the State of California.

<i>Vendor Name/Financial Institution (Printed)</i>	<i>Federal ID Number (or n/a)</i>
<i>By (Authorized Signature)</i>	
<i>Printed Name and Title of Person Signing</i>	<i>Date Executed</i>

END OF DOCUMENT

WORKERS' COMPENSATION CERTIFICATION

BID NO.: 18-007 between Pittsburg Unified School District ("District") and _____
_____ ("Contractor" or "Bidder").

Labor Code section 3700, in relevant part, provides:

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

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

I am aware of the provisions of section 3700 of the Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the Work of this Contract.

Date: _____

Proper Name of Contractor: _____

Signature: _____

Print Name: _____

Title: _____

(In accordance with Labor Code sections 1860 and 1861, the above certificate must be signed and filed with the awarding body prior to performing any Work under this Contract.)

END OF DOCUMENT

**PREVAILING WAGE AND
RELATED LABOR REQUIREMENTS CERTIFICATION**

BID NO.: 18-007 between Pittsburg Unified School District ("District") and _____
_____ ("Contractor" or "Bidder").

I hereby certify that I will conform to the State of California Public Works Contract requirements regarding prevailing wages, benefits, on-site audits with 48-hours' notice, payroll records, and apprentice and trainee employment requirements, for all Work on the above Project including, without limitation, labor compliance monitoring and enforcement by the Department of Industrial Relations.

Date: _____

Proper Name of Contractor: _____

Signature: _____

Print Name: _____

Title: _____

END OF DOCUMENT

**DISABLED VETERAN BUSINESS
ENTERPRISE PARTICIPATION CERTIFICATION**

BID NO.: 18-007 between Pittsburg Unified School District ("District") and _____
_____ ("Contractor" or "Bidder").

GENERAL INSTRUCTIONS

Section 17076.11 of the Education Code requires school districts using, or planning to use, funds allocated pursuant to the State of California School Facility Program ("Program") for the construction and/or modernization of school buildings to have a participation goal for disabled veteran business enterprises ("DVBE") of at least three percent (3%) per year of the overall dollar amount expended each year by the school district on projects that receive state funding. Therefore, the lowest responsive responsible Bidder awarded the Contract must submit this document to the District with its executed Agreement, identifying the steps contractor took to solicit DVBE participation in conjunction with this Contract. **Do not submit this form with your bids.**

PART I – Method of Compliance with DVBE Participation Goals. Check the appropriate box to indicate your method of committing the contract dollar amount.

YOUR BUSINESS ENTERPRISE IS:	AND YOU WILL	AND YOU WILL
A. <input type="checkbox"/> Disabled veteran owned and your forces will perform at least 3% of this Contract	Include a copy of your DVBE letter from Office of Small Business and Disabled Veterans Business Enterprise Services ("OSDS")*	Complete Part 1 of this form and the Certification
B. <input type="checkbox"/> Disabled veteran owned but is unable to perform 3% of this Contract with your forces	Use DVBE subcontractors /suppliers to bring the Contract participation to at least 3%	Include a copy of each DVBE's letter from OSDS (including yours, if applicable), and complete Part 1 of this form and the Certification
C. <input type="checkbox"/> NOT disabled veteran owned	Use DVBE subcontractors /suppliers for at least 3% of this Contract	
D. <input type="checkbox"/> Unable to meet the required participation goals	Complete all of this form and the Certification	

* A DVBE letter from OSDS is obtained from the participating DVBE.

You must complete the following table to show the dollar amount of DVBE participation:

	TOTAL CONTRACT PRICE
A. Prime Bidder, if DVBE (own participation)	\$
B. DVBE Subcontractor or Supplier	
1.	
2.	
3.	
4.	
C. Subtotal (A & B)	
D. Non-DVBE	
E. Total Bid	

PART II – Contacts. To identify DVBE subcontractors/suppliers for participation in your contract, you must contact each of the following categories. You should contact several DVBE organizations.

CATEGORY	TELEPHONE NUMBER	DATE CONTACTED	PERSON CONTACTED
1. The District, if any			*
2. OSDS, provides assistance locating DVBEs at https://caleprocure.ca.gov/pages/PublicSearch/supplier-search.aspx	(916) 375-4940		*
3. DVBE Organization (List)			*

*Write "recorded message" in this column, if applicable.

PART III – Advertisement. You must advertise for DVBE participation in both a trade and focus paper. List the advertisement you place to solicit DVBE participation. Advertisements should be published at least fourteen (14) days prior to bid/proposal opening; if you cannot advertise fourteen (14) days prior, advertisements should be published as soon as possible. Advertisements must include that your firm is seeking DVBE participation, the project name and location, and your firm’s name, your contact person, and telephone number. Attach copies of advertisements to this form.

FOCUS/TRADE PAPER NAME	CHECK ONE		DATE OF ADVERTISEMENT
	TRADE	FOCUS	

PART IV – DVBE Solicitations. List DVBE subcontractors/suppliers that were invited to bid. Use the following instructions to complete the remainder of this section (read the three columns as a sentence from left to right). If you need additional space to list DVBE solicitations, please use a separate page and attach to this form.

IF THE DVBE.....	THEN.....	AND.....		
was selected to participate	Check "YES" in the "SELECTED" column	include a copy of their DVBE letter(s) from OSDS		
was NOT selected to participate	Check "NO" in the "SELECTED" column	state why in the "REASON NOT SELECTED" column		
did not respond to your solicitation	Check the "NO RESPONSE" column.			
DVBE CONTACTED	SELECTED		REASON NOT SELECTED	NO RESPONSE
	YES	NO		

A copy of this form must be retained by you and may be subject to a future audit.

CERTIFICATION

I, _____, certify that I am the bidder's _____ and that I have made a diligent effort to ascertain the facts with regard to the representations made herein. In making this certification, I am aware of section 12650 et seq. of the Government Code providing for the imposition of treble damages for making false claims.

Date: _____

Proper Name of Contractor: _____

Signature: _____

Print Name: _____

Title: _____

END OF DOCUMENT

DRUG-FREE WORKPLACE CERTIFICATION

BID NO.: 18-007 between Pittsburg Unified School District ("District") and _____ ("Contractor" or "Bidder").

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

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

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

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

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

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

I acknowledge that I am aware of the provisions of and hereby certify that I will adhere to the requirements of the Drug-Free Workplace Act of 1990.

Date: _____

Proper Name of Contractor: _____

Signature: _____

Print Name: _____

Title: _____

END OF DOCUMENT

TOBACCO-FREE ENVIRONMENT CERTIFICATION

BID NO.: 18-007 between Pittsburg Unified School District ("District") and _____
_____ ("Contractor" or "Bidder").

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

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

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

Date: _____

Proper Name of Contractor: _____

Signature: _____

Print Name: _____

Title: _____

END OF DOCUMENT

HAZARDOUS MATERIALS CERTIFICATION

BID NO.: 18-007 between Pittsburg Unified School District ("District") and _____ ("Contractor" or "Bidder").

1. Contractor hereby certifies that no asbestos, or asbestos-containing materials, polychlorinated biphenyl (PCB), or any material listed by the federal or state Environmental Protection Agency or federal or state health agencies as a hazardous material, or any other material defined as being hazardous under federal or state laws, rules, or regulations, ("New Hazardous Material"), shall be furnished, installed, or incorporated in any way into the Project or in any tools, devices, clothing, or equipment used to affect any portion of Contractor's work on the Project for District.
2. Contractor further certifies that it has instructed its employees with respect to the above-mentioned standards, hazards, risks, and liabilities.
3. Asbestos and/or asbestos-containing material shall be defined as all items containing but not limited to chrysotile, crocidolite, amosite, anthophyllite, tremolite, and actinolite. Any or all material containing greater than one-tenth of one percent (0.1%) asbestos shall be defined as asbestos-containing material.
4. Any disputes involving the question of whether or not material is New Hazardous Material shall be settled by electron microscopy or other appropriate and recognized testing procedure, at the District's determination. The costs of any such tests shall be paid by Contractor if the material is found to be New Hazardous Material.
5. All Work or materials found to be New Hazardous Material or Work or material installed with equipment containing New Hazardous Material will be immediately rejected and this Work will be removed at Contractor's expense at no additional cost to the District.
6. Contractor has read and understood the document titled Hazardous Materials Procedures & Requirements, and shall comply with all the provisions outlined therein.

Date: _____

Proper Name of Contractor: _____

Signature: _____

Print Name: _____

Title: _____

END OF DOCUMENT

LEAD-BASED MATERIALS CERTIFICATION

BID NO.: 18-007 between Pittsburg Unified School District ("District") and _____ ("Contractor" or "Bidder").

This certification provides notice to the Contractor that:

- (1) Contractor's work may disturb lead-containing building materials.
- (2) Contractor shall notify the District if any work may result in the disturbance of lead-containing building materials.
- (3) Contractor shall comply with the Renovation, Repair and Painting Rule, if lead-based paint is disturbed in a six-square-foot or greater area indoors or a 20-square-foot or greater area outdoors.

1. Lead as a Health Hazard

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

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

Because the Contractor and its employees will be providing services for the District, and because the Contractor's work may disturb lead-containing building materials, CONTRACTOR IS HEREBY NOTIFIED of the potential presence of lead-containing materials located within certain buildings utilized by the District. All school buildings built prior to 1978 are presumed to contain some lead-based paint until sampling proves otherwise.

2. Overview of California Law

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

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

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

The OSHA Regulations apply to all construction work where a contractor's employee may be occupationally exposed to lead. The OSHA Regulations contain specific and detailed requirements imposed on contractors subject to those regulations. The OSHA Regulations define construction work as work for construction, alteration, and/or repair, including painting and decorating. Regulated work includes, but is not limited to, the following:

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

Because it is assumed by the District that all painted surfaces (interior as well as exterior) within the District contain some level of lead, it is imperative that the Contractor, its workers and subcontractors fully and adequately comply with all applicable laws, rules and regulations governing lead-based materials (including title 8, California Code of Regulations, section 1532.1).

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

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

The EPA requires lead safe work practices to reduce exposure to lead hazards created by renovation, repair and painting activities that disturb lead-based paint. Pursuant to the Renovation, Repair and Painting Rule (RRP), renovations in homes, childcare facilities, and schools built prior to 1978 must be conducted by certified renovations firms, using renovators with training by a EPA-accredited training provider, and fully and adequately complying with all applicable laws, rules and regulations governing lead-based materials, including those rules and regulations appearing within title 40 of the Code of Federal Regulations as part 745 (40 CFR 745).

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

4. **Contractor's Liability**

If the Contractor fails to comply with any applicable laws, rules, or regulations, and that failure results in a site or worker contamination, the Contractor will be held solely responsible for all costs involved in any required corrective actions, and shall defend, indemnify, and hold harmless the District, pursuant to the indemnification provisions of the Contract, for all damages and other claims arising therefrom.

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

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

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

THE CONTRACTOR HEREBY ACKNOWLEDGES, UNDER PENALTY OF PERJURY, THAT IT:

1. **HAS RECEIVED NOTIFICATION OF POTENTIAL LEAD-BASED MATERIALS ON THE OWNER'S PROPERTY;**
2. **IS KNOWLEDGEABLE REGARDING AND WILL COMPLY WITH ALL APPLICABLE LAWS, RULES, AND REGULATIONS GOVERNING WORK WITH, AND DISPOSAL, OF LEAD.**

THE UNDERSIGNED WARRANTS THAT HE/SHE HAS THE AUTHORITY TO SIGN ON BEHALF OF AND BIND THE CONTRACTOR. THE DISTRICT MAY REQUIRE PROOF OF SUCH AUTHORITY.

Date: _____

Proper Name of Contractor: _____

Signature: _____

Print Name: _____

Title: _____

END OF DOCUMENT

IMPORTED MATERIALS CERTIFICATION

BID NO.: 18-007 between Pittsburg Unified School District ("District") and _____ ("Contractor" or "Bidder").

This form shall be executed by all entities that, in any way, provide or deliver and/or supply any soils, aggregate, or related materials ("Fill") to the Project Site and shall be provided to the District at least ten (10) days before delivery. All Fill shall satisfy all requirements of any environmental review of the Project performed pursuant to the statutes and guidelines of the California Environmental Quality Act, section 21000 et seq. of the Public Resources Code ("CEQA"), and all requirements of section 17210 et seq. of the Education Code, including requirements for a Phase I environmental assessment acceptable to the State of California Department of Education and Department of Toxic Substances Control.

Certification of: Delivery Firm/Transporter Supplier Manufacturer
 Wholesaler Broker Retailer
 Distributor Other _____

Type of Entity Corporation General Partnership
 Limited Partnership Limited Liability Company
 Sole Proprietorship Other _____

Name of firm ("Firm"): _____

Mailing address: _____

Addresses of branch office used for this Project: _____

If subsidiary, name and address of parent company: _____

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

Date: _____

Proper Name of Firm: _____

Signature: _____

Print Name: _____

Title: _____

END OF DOCUMENT

CRIMINAL BACKGROUND INVESTIGATION
/FINGERPRINTING CERTIFICATION

BID NO.: 18-007 between Pittsburg Unified School District ("District") and _____
_____ ("Contractor" or "Bidder").

The undersigned does hereby certify to the governing board of the District as follows:

That I am a representative of the Contractor currently under contract with the District; that I am familiar with the facts herein certified; and that I am authorized and qualified to execute this certificate on behalf of Contractor.

Contractor certifies that it has taken at least one of the following actions with respect to the construction Project that is the subject of the Contract (check all that apply):

_____ The Contractor has complied with the fingerprinting requirements of Education Code section 45125.1 with respect to all Contractor's employees and all of its Subcontractors' employees who may have contact with District pupils in the course of providing services pursuant to the Contract, and the California Department of Justice has determined that none of those employees has been convicted of a felony, as that term is defined in Education Code section 45122.1. A complete and accurate list of Contractor's employees and of all of its subcontractors' employees who may come in contact with District pupils during the course and scope of the Contract is attached hereto; and/or

_____ Pursuant to Education Code section 45125.2, Contractor has installed or will install, prior to commencement of Work, a physical barrier at the Work Site, that will limit contact between Contractor's employees and District pupils at all times; and/or

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

Name: _____

Title: _____

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

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

Date: _____

Proper Name of Contractor: _____

Signature: _____

Print Name: _____

Title: _____

END OF DOCUMENT

BUY AMERICAN CERTIFICATION

BID NO.: 18-007 between Pittsburg Unified School District ("District") and _____ ("Contractor" or "Bidder").

Federal regulations require that all of the iron, steel, and manufactured goods used in projects for the construction, installation, repairs, renovation, modernization, or maintenance of a public building or public work funded in part or in whole by federal stimulus funds, with the exception of projects funded by Qualified School Construction Bonds, be produced in the United States of America, unless a federal department waives this requirement because (1) it is inconsistent with the public interest, (2) the goods are not produced in sufficient quantities or of satisfactory quality in the United States, or (3) the requirement would increase the cost of the Project overall by more than twenty-five percent (25%) ("Buy American").

Contractor shall submit this Certification with its executed agreement, identifying the steps Contractor will take to use goods produced in the United States of America in carrying out this Contract. Bidder should not submit this form with its bid.

Contractor shall retain a copy of this form and may be subject to a future audit.

CERTIFICATION

On behalf of Contractor, I represent and covenant that Contractor will use on the Project only iron, steel and manufactured goods produced in the United States of America except goods for which a federal department has waived this requirement.

I, _____, certify that I am the Contractor's _____ and that the representations and covenants made herein are true and correct. In making this certification, I am aware of section 12650 et seq. of the Government Code providing for the imposition of treble damages for making false claims.

Date: _____

Proper Name of Contractor: _____

Signature: _____

Print Name: _____

Title: _____

END OF DOCUMENT

POST BID INTERVIEW

PART 1 – GENERAL

1.01 SUMMARY

If requested by the District, this Section requires the apparent low bidder to attend and participate in a Post Bid Interview with the Construction Manager, prior to award of any contract by the District. The Post Bid Interview will be scheduled by the Construction Manager within three (3) calendar days after the date of bid.

1.02 REQUIRED ATTENDANCE

- A. A duly authorized representative of the apparent low bidder is required to attend the Post Bid Interview, in person.
- B. The apparent low bidder's authorized representative must have signatory authority on behalf of the apparent low bidder.
- C. Failure to attend the Post Bid Interview will be considered just cause for the District to reject the Bid.

1.03 POST BID INTERVIEW PROCEDURE

- A. The Construction Manager will review the Bid with the attendees.
- B. The Construction Manager will review the Contract Documents with the attendees, including but not limited to:
 - (1) Insurance
 - (2) Bonding
 - (3) Addenda
 - (4) Pre-Bid Clarifications
 - (5) Scope of Work
 - (6) Bid Packages Descriptions
 - (7) Bid Alternates
 - (8) Contract Plans
 - (9) Contract Specifications
 - (10) Project Schedule and Schedule Requirements

- (11) Critical Dates Requirement for Other Bid Packages
- (12) Prevailing Wage Requirements
- (13) Liquidated Damages
- (14) Required Documentation for Contract Administration
- (15) Contract Coordination Requirements

1.04 POST BID INTERVIEW DOCUMENTATION

The Construction Manager will document the Post Bid Interview on the form attached to this Section. Both the apparent low bidder and the Construction Manager are required to sign the Post Bid Interview Documentation.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

POST BID INTERVIEW

PITTSBURG UNIFIED SCHOOL DISTRICT

[Name]
[Address 1]
[Address 2]
[Phone] [Fax]

BIDDER: _____

DATE: _____ TIME: _____ PHONE: _____

I. INTRODUCTIONS:

A. Present

	_____	_____
	CONTRACTOR	CONTRACTOR
	_____	_____
	_____	_____

II. PROPOSED CONTRACT:

III. PURPOSE OF INTERVIEW IS TO ASSURE A MUTUAL UNDERSTANDING OF THE FOLLOWING:

- A. Do you acknowledge submission of a complete and accurate bid? Yes No
- B. Do you acknowledge the Bid Document submittal timelines after NOA and NTP and can you meet those timelines? Yes No
- C. Do you acknowledge the requirements for the escrow of bid documents? Yes No
- D. Are you comfortable with your listed subcontractors? Yes No

IV. CONTRACTUAL REQUIREMENTS:

- A. Do you understand you are a prime contractor? Yes No
- B. Can you meet specified insurance requirements? Yes No
 - 1. Do any of your policies that require Additional Insured endorsements exceed the minimum coverage requirements? Yes No
 - 2. Are you requesting that the District accept an Umbrella or Excess Liability Insurance Policy to meet the policy limit? Yes No

3. Will there be a gap between the per occurrence amount of any underlying policy and the start of the coverage under the Umbrella or Excess Liability Insurance Policy? Yes No
- C. Will you provide the Performance Bond and Labor and Material Bond for 100% of the Contract Price as stipulated? Yes No
1. Cost for bond: _____% Yes No
2. Is the cost of your bond in your base bid? Yes No
3. Is your surety licensed to issue bonds in California? Yes No
- D. Do you understand the fingerprinting requirements? Yes No
- E. Is it understood that all workers must be paid prevailing wage? Yes No
- F. Is it understood that all subcontractors of every tier must be registered as a public works contractor with the Department of Industrial Relations? Yes No
- V. SCOPE OF WORK:
- A. Acknowledged Receipt of Addenda #1-___ Yes No
- B. Are the costs for addenda items included in your bid? (if applicable) Yes No
- C. Do you have a complete understanding of your Scope of Work under the proposed Agreement? Yes No
- D. You have re-reviewed the documents and understand the Scope of the Work. Are there any items that require clarification? Yes No
- If yes, please identify them.
1. _____

2. _____

3. _____

- Is (are) there additional cost(s) for the above item(s)? Yes No
- E. Have you reviewed bid alternative(s) #1-___? (if applicable) Yes No
- F. Are the costs for bid alternatives included in your bid? Yes No

- G. Are the plans and specifications clear and understandable to your satisfaction? Yes No
- H. Do you acknowledge that the time to submit notice of requests for substitution of specified materials has expired? Yes No

VI. SCHEDULE:

- A. Do you acknowledge and agree to the stipulated completion dates and milestones in the contract? Yes No
 - 1. Will you provide a detailed construction schedule to _____ within the required ten (10) days of the Notice to Proceed, per the contract? Yes No
 - 2. Can you meet the submittal deadline? Yes No
 - 3. It is understood that the Project schedule is critical and that that weekend and overtime work may be required to meet the milestones. Yes No
 - 4. It is understood that if rain does occur, then all dewatering and protection of work is required, per the contract. Yes No
If not, what do you believe must change and why? _____

- B. Identify critical materials, deliveries, long lead items and other dependencies, including Owner Furnished items that could affect the completion of your work. Yes No
 - 1. _____
 - 2. _____
 - 3. _____
 - 4. _____
 - 5. _____

- C. Do you understand that there is going to be maintenance and other construction taking place on site during the course of the project? Yes No

VII. EXECUTION OF WORK

- A. Do you understand the access to the site? Yes No

- | | | |
|--|-----|----|
| B. Do you understand the staging area restrictions? | Yes | No |
| C. Have you included protection of [asphalt, floors, and roofs]? | Yes | No |
| D. Do you understand that the site is occupied by students, teachers, administrators, parents, etc.? | Yes | No |

VIII. CONTRACTOR COMMENTS/SUGGESTIONS:

1. _____
2. _____
3. _____
4. _____
5. _____

IX. CONTRACTOR

You agree the information contained herein is part of your contractual obligations. Your signature acknowledges your agreement to perform all Work in the Contract Documents, and that costs for all Work are included in your bid.

The foregoing information is true and accurate, and I am authorized to sign as an officer of the company I am representing.

[Company Name]

 Signature _____ Title: _____

Date: _____

X. CONSTRUCTION MANAGER

Signature _____ Title: _____

Date: _____

Title of Document: POST BID INTERVIEW

Number of Pages: _____

Date of Document: _____

END OF DOCUMENT

NOTICE OF AWARD

Dated: _____ 20__

To: _____ (Contractor)

To: _____
(Address)

From: Governing Board ("Board") of Pittsburg Unified School District ("District" or "Owner")

PROJECT: **Highlands Elementary School – Window In-Kind Replacement**, Bid No.: 18-007 ("Project").

Contractor has been awarded the referenced Contract on _____, 20__, by action of the District's Board.

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

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

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

The Contractor shall execute and submit the following documents by 5:00 p.m. of the **SEVENTH (7th)** calendar day following the date of the Notice of Award.

- a. Agreement: To be executed by successful Bidder. Submit four (4) copies, each bearing an original signature.
- b. Escrow of Bid Documentation: This must include all required documentation. See the document titled Escrow Bid Documentation for more information.
- c. Performance Bond (100%): On the form provided in the Contract Documents and fully executed as indicated on the form.
- d. Payment Bond (Contractor's Labor & Material Bond) (100%): On the form provided in the Contract Documents and fully executed as indicated on the form.
- e. Insurance Certificates and Endorsements as required.
- f. Workers' Compensation Certification.
- g. Prevailing Wage and Related Labor Requirements Certification.

- h. Disabled Veteran Business Enterprise Participation Certification.
- i. Drug-Free Workplace Certification.
- j. Tobacco-Free Environment Certification.
- k. Hazardous Materials Certification.
- l. Lead-Based Materials Certification.
- m. Imported Materials Certification.
- n. Criminal Background Investigation/Fingerprinting Certification.
- o. Buy American Certification.

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

After you comply with those conditions, District will return to you one fully signed counterpart of the Agreement.

PITTSBURG UNIFIED SCHOOL DISTRICT

BY: _____

NAME: _____

TITLE: _____

END OF DOCUMENT

AGREEMENT

THIS AGREEMENT IS MADE AND ENTERED INTO THIS _____ DAY OF _____
_____, 20____, by and between the Pittsburg 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:

Highlands Elementary School – Window In-Kind Replacement

("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 18 documents, which shall control over figured dimensions, which shall control over large-scale drawings, which shall control over small-scale drawings. 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 on or before **August 02, 2019** ("Contract Time") as 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 One Thousand Five hundred Dollars (\$1,500.00) per day as liquidated damages for each and every day's delay beyond the time herein prescribed in finishing 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. **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.

9. **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.

10. **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.
11. **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.
12. **Classification of Contractor's License:** Contractor hereby acknowledges that it currently holds valid Type **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.
13. **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.
14. **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.
15. 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.
16. **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).

- 17. 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.
- 18. 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.
- 19. 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.

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

CONTRACTOR

PITTSBURG UNIFIED SCHOOL DISTRICT

By: _____

By: _____

Title: _____

Title: _____

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

NOTICE TO PROCEED

Dated: _____, 20____

TO: _____
("Contractor")

ADDRESS: _____

PROJECT: **Highlands Elementary School – Window In-Kind Replacement**

BID NO.: 18-007 between the Pittsburg Unified School District and Contractor ("Contract").

You are notified that the Contract Time under the above Contract will commence to run on _____, 20____. By that date, you are to start performing your obligations under the Contract Documents. In accordance with the Agreement executed by Contractor, the date of completion is **August 02, 2019**.

You must submit the following documents by 5:00 p.m. of the TENTH (10th) calendar day following the date of this Notice to Proceed:

- a. Contractor’s preliminary schedule of construction.
- b. Contractor’s preliminary schedule of values for all of the Work.
- c. Contractor’s preliminary schedule of submittals, including Shop Drawings, Product Data, and Samples submittals
- d. Contractor’s Safety Plan specifically adapted for the Project.
- e. A complete subcontractors list, including the name, address, telephone number, email address, facsimile number, California State Contractors License number, license classification, Department of Industrial Relations registration number, and monetary value of all Subcontracts.

Thank you. We look forward to a very successful Project.

PITTSBURG UNIFIED SCHOOL DISTRICT

BY: _____

NAME: _____

TITLE: _____

END OF DOCUMENT

ESCROW BID DOCUMENTATION

1. Requirement to Escrow Bid Documentation

- a. Contractor shall submit, within **SEVEN (7)** calendar days after the date of the Notice of Award, one copy of all documentary information received or generated by Contractor in preparation of bid prices for this Contract, as specified herein. This material is referred to herein as "Escrow Bid Documentation." The Escrow Bid Documentation of the Contractor will be held in escrow for the duration of the Contract.
- b. Contractor agrees, as a condition of award of the Contract, that the Escrow Bid Documentation constitutes all written information used in the preparation of its bid, and that no other written bid preparation information shall be considered in resolving disputes or claims. Contractor also agrees that nothing in the Escrow Bid Documentation shall change or modify the terms or conditions of the Contract Documents.
- c. The Escrow Bid Documentation will not be opened by District except as indicated herein. The Escrow Bid Documentation will be used only for the resolution of change orders and claims disputes.
- d. Contractor's submission of the Escrow Bid Documentation, as with the bonds and insurance documents required, is considered an essential part of the Contract award. Should the Contractor fail to make the submission within the allowed time specified above, District may deem the Contractor to have failed to enter into the Contract, and the Contractor shall forfeit the amount of its bid security, accompanying the Contractor's bid, and District may award the Contract to the next lowest responsive responsible bidder.
- e. NO PAYMENTS WILL BE MADE, NOR WILL DISTRICT ACCEPT PROPOSED CHANGE ORDERS UNTIL THE ABOVE REQUIRED INFORMATION IS SUBMITTED AND APPROVED.
- f. The Escrow Bid Documentation shall be submitted in person by an authorized representative of the Contractor to the District.

2. Ownership of Escrow Bid Documentation

- a. The Escrow Bid Documentation is, and shall always remain, the property of Contractor, subject to review by District, as provided herein.
- b. Escrow Bid Documentation constitute trade secrets, not known outside Contractor's business, known only to a limited extent and only by a limited number of employees of Contractor, safeguarded while in Contractor's possession, extremely valuable to Contractor, and could be extremely valuable to Contractor's competitors by virtue of reflecting Contractor's

contemplated techniques of construction. Subject to the provisions herein, District agrees to safeguard the Escrow Bid Documentation, and all information contained therein, against disclosure to the fullest extent permitted by law.

3. Format and Contents of Escrow Bid Documentation

- a. Contractor may submit Escrow Bid Documentation in its usual cost-estimating format; a standard format is not required. The Escrow Bid Documentation shall be submitted in the language (e.g., English) of the specification.
- b. Escrow Bid Documentation must clearly itemize the estimated costs of performing the work of each bid item contained in the bid schedule, separating bid items into sub-items as required to present a detailed cost estimate and allow a detailed cost review. The Escrow Bid Documentation shall include all subcontractor bids or quotes, supplier bids or quotes, quantity takeoffs, crews, equipment, calculations of rates of production and progress, copies of quotes from subcontractors and suppliers, and memoranda, narratives, add/deduct sheets, and all other information used by the Contractor to arrive at the prices contained in the bid proposal. Estimated costs should be broken down into Contractor's usual estimate categories such as direct labor, repair labor, equipment ownership and operation, expendable materials, permanent materials, and subcontract costs as appropriate. Plant and equipment and indirect costs should be detailed in the Contractor's usual format. The Contractor's allocation of indirect costs, contingencies, markup, and other items to each bid item shall be identified.
- c. All costs shall be identified. For bid items amounting to less than \$10,000, estimated unit costs are acceptable without a detailed cost estimate, provided that labor, equipment, materials, and subcontracts, as applicable, are included and provided that indirect costs, contingencies, and markup, as applicable, are allocated.
- d. Bid Documentation provided by District should not be included in the Escrow Bid Documentation unless needed to comply with the following requirements.

4. Submittal of Escrow Bid Documentation

- a. The Escrow Bid Documentation shall be submitted by the Contractor in a sealed container within **SEVEN (7)** calendar days after the date of the Notice of Award. The container shall be clearly marked on the outside with the Contractor's name, date of submittal, project name and the words "Escrow Bid Documentation – Intended to be opened in the presence of Authorized Representatives of Both District and Contractor".
- b. By submitting Escrow Bid Documentation, Contractor represents that the material in the Escrow Bid Documentation constitutes all the documentary information used in preparation of the bid and that the Contractor has personally examined the contents of the Escrow Bid Documentation container and has found that the documents in the container are complete.

- c. If Contractor's proposal is based upon subcontracting any part of the work, each subcontractor whose total subcontract price exceeds 5 percent of the total contract price proposed by Contractor, shall provide separate Escrow Documents to be included with those of Contractor. Those documents shall be opened and examined in the same manner and at the same time as the examination described above for Contractor.
- d. If Contractor wishes to subcontract any portion of the Work after award, District retains the right to require Contractor to submit Escrow Documents for the Subcontractor before the subcontract is approved.

5. Storage, Examination and Final Disposition of Escrow Bid Documentation

- a. The Escrow Bid Documentation will be placed in escrow, for the life of the Contract, in a mutually agreeable institution. The cost of storage will be paid by Contractor for the duration of the project until final Contract payment. The storage facilities shall be the appropriate size for all the Escrow Bid Documentation and located conveniently to both District's and Contractor's offices.
- b. The Escrow Bid Documentation shall be examined by both District and Contractor, at any time deemed necessary by either District or Contractor, to assist in the negotiation of price adjustments and change orders or the settlement of disputes and claims. In the case of legal proceedings, Escrow Bid Documentation shall be used subject to the terms of an appropriate protective order if requested by Contractor and ordered by a court of competent jurisdiction. Examination of the Escrow Bid Documentation is subject to the following conditions:
 - (1) As trade secrets, the Escrow Bid Documentation is proprietary and confidential to the extent allowed by law.
 - (2) District and Contractor shall each designate, in writing to the other party **SEVEN (7)** calendar days prior to any examination, the names of representatives who are authorized to examine the Escrow Bid Documentation. No other person shall have access to the Escrow Bid Documentation.
 - (3) Access to the documents may take place only in the presence of duly designated representatives of the District and Contractor. If Contractor fails to designate a representative or appear for joint examination on **SEVEN (7)** calendar days' notice, then the District representative may examine the Escrow Bid Documents alone upon an additional **THREE (3)** calendar days' notice if a representative of the Contractor does not appear at the time set.
 - (4) If a subcontractor has submitted sealed information to be included in the Escrow Bid Documents, access to those documents may take place only in the presence of a duly designated representative of the District, Contractor and that subcontractor. If that subcontractor fails to

designate a representative or appear for joint examination on **SEVEN (7)** calendar days' notice, then the District representative and/or the Contractor may examine the Escrow Bid Documentation without that subcontractor present upon an additional **THREE (3)** calendar days' notice if a representative of that subcontractor does not appear at the time set.

- c. The Escrow Bid Documentation will be returned to Contractor at such time as the Contract has been completed and final settlement has been achieved.

END OF DOCUMENT

ESCROW AGREEMENT IN LIEU OF RETENTION
(Public Contract Code Section 22300)

(Note: Contractor must use this form.)

This Escrow Agreement in Lieu of Retention ("Escrow Agreement") is made and entered into this _____ day of _____, 20____, by and between the Pittsburg Unified School District ("District"), whose address is 2000 Railroad Avenue, Pittsburg, California, 94565 and _____ ("Contractor"), whose address is _____, and _____ ("Escrow Agent"), a state or federally chartered bank in the state of California, whose address is _____.

For the consideration hereinafter set forth, District, Contractor, and Escrow Agent agree as follows:

1. Pursuant to section 22300 of Public Contract Code of the State of California, which is hereby incorporated by reference, Contractor has the following two (2) options:
 - Deposit securities with Escrow Agent as a substitute for retention earnings required to be withheld by District pursuant to the Bid No. 18-007 entered into between District and Contractor for the Project **Highlands Elementary School – Window In-Kind Replacement**, in the amount of _____ Dollars (\$ _____) dated, _____, 20____, (the "Contract"); **or**
 - On written request of Contractor, District shall make payments of the retention earnings for the above referenced Contract directly to Escrow Agent.

When Contractor deposits the securities as a substitute for Contract earnings (first option), Escrow Agent shall notify District within ten (10) calendar days of the deposit. The market value of the securities at the time of substitution and at all times from substitution until the termination of the Escrow Agreement shall be at least equal to the cash amount then required to be withheld as retention under the terms of the Contract between District and Contractor.

Securities shall be held in the name of Pittsburg Unified School District, and shall designate Contractor as beneficial owner.

2. District shall make progress payments to Contractor for those funds which otherwise would be withheld from progress payments pursuant to Contract provisions, provided that Escrow Agent holds securities in form and amount specified above.
3. When District makes payment of retentions earned directly to Escrow Agent, Escrow Agent shall hold them for the benefit of Contractor until the time that the escrow created under this Escrow Agreement is terminated. Contractor may direct the investment of the payments into securities. All terms and conditions of this Escrow

Agreement and the rights and responsibilities of the Parties shall be equally applicable and binding when District pays Escrow Agent directly.

4. Contractor shall be responsible for paying all fees for the expenses incurred by Escrow Agent in administering the Escrow Account, and all expenses of District. The District will charge Contractor **\$0.00** for each of District's deposits to the escrow account. These expenses and payment terms shall be determined by District, Contractor, and Escrow Agent.
5. Interest earned on securities or money market accounts held in escrow and all interest earned on that interest shall be for sole account of Contractor and shall be subject to withdrawal by Contractor at any time and from time to time without notice to District.
6. Contractor shall have the right to withdraw all or any part of the principal in the Escrow Account only by written notice to Escrow Agent accompanied by written authorization from District to Escrow Agent that District consents to withdrawal of amount sought to be withdrawn by Contractor.
7. District shall have the right to draw upon the securities and/or withdraw amounts from the Escrow Account in the event of default by Contractor. Upon seven (7) days' written notice to Escrow Agent from District of the default, if applicable, Escrow Agent shall immediately convert the securities to cash and shall distribute the cash as instructed by District.
8. Upon receipt of written notification from District certifying that the Contract is final and complete, and that Contractor has complied with all requirements and procedures applicable to the Contract, Escrow Agent shall release to Contractor all securities and interest on deposit less escrow fees and charges of the Escrow Account. The escrow shall be closed immediately upon disbursement of all monies and securities on deposit and payments of fees and charges.
9. Escrow Agent shall rely on written notifications from District and Contractor pursuant to Paragraphs 5 through 8, inclusive, of this Escrow Agreement and District and Contractor shall hold Escrow Agent harmless from Escrow Agent's release and disbursement of securities and interest as set forth above.
10. Names of persons who are authorized to give written notice or to receive written notice on behalf of District and on behalf of Contractor in connection with the foregoing, and exemplars of their respective signatures are as follows:

On behalf of District:

On behalf of Contractor:

Title

Title

Name

Name

Signature

Signature

PITTSBURG UNIFIED SCHOOL DISTRICT
Highlands Elementary School
Window In-Kind Replacement
PLUM architects

ESCROW AGREEMENT IN LIEU OF RETENTION
DOCUMENT 00 57 00-2

Address

Address

On behalf of Escrow Agent:

Title

Name

Signature

Address

At the time that the Escrow Account is opened, District and Contractor shall deliver to Escrow Agent a fully executed copy of this Agreement.

IN WITNESS WHEREOF, the parties have executed this Agreement by their proper officers on the date first set forth above.

On behalf of District:

On behalf of Contractor:

Title

Title

Name

Name

Signature

Signature

2000 Railroad Ave., Pittsburg, CA 94565
Address

Address

END OF DOCUMENT

PERFORMANCE BOND
(100% of Contract Price)

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

KNOW ALL PERSONS BY THESE PRESENTS:

WHEREAS, the governing board ("Board") of the Pittsburg Unified School District, ("District") and _____ ("Principal") have entered into a contract for the furnishing of all materials and labor, services and transportation, necessary, convenient, and proper to perform the following project:

Highlands elementary School – Window In-Kind Replacement

("Project" or "Contract") which Contract dated _____, 20____, and all of the Contract Documents attached to or forming a part of the Contract, are hereby referred to and made a part hereof; and

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

NOW, THEREFORE, the Principal and _____ ("Surety") are held and firmly bound unto the Board of the District in the penal sum of

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

- Promptly perform all the work required to complete the Project; and
- Pay to the District all damages the District incurs as a result of the Principal's failure to perform all the Work required to complete the Project.

Or, at the District's sole discretion and election, the Surety shall obtain a bid or bids for completing the Contract in accordance with its terms and conditions, and upon determination by the District of the lowest responsible bidder, arrange for a contract between such bidder and the District and make available as Work progresses sufficient funds to pay the cost of completion less the "balance of the Contract Price," and to pay and perform all obligations of Principals under the Contract, including, without limitation, all obligations with respect to warranties, guarantees and the payment of liquidated damages. The term "balance of the Contract Price," as used in this paragraph, shall mean the total amount payable to Principal by the District under the Contract and any modifications thereto, less the amount previously paid by the District to the Principal, less any withholdings by the District allowed under the Contract. District shall not be required or obligated to accept a tender of a completion contractor from the Surety for any or no reason.

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

Surety expressly agrees that the District may reject any contractor or subcontractor proposed by Surety to fulfill its obligations in the event of default by the Principal. Surety shall not utilize Principal in completing the Work nor shall Surety accept a Bid from Principal for completion of the Work if the District declares the Principal to be in default and notifies Surety of the District's objection to Principal's further participation in the completion of the Work.

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

The Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of the contract or to the work to be performed thereunder or the specifications accompanying the same shall in any way affect its obligation on this bond. The Surety also stipulates and agrees that it shall not be exonerated or released from the obligation of this bond by any overpayment or underpayment by the District that is based upon estimates approved by the Architect. The Surety does hereby waive notice of any such change, extension of time, alteration, or addition to the terms of the Contract or to the work or to the specifications.

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

_____	_____
Principal	Surety
_____	_____
By	By

	Name of California Agent of Surety

	Address of California Agent of Surety

	Telephone No. of California Agent of Surety

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

END OF DOCUMENT

PAYMENT BOND
Contractor's Labor & Material Bond
(100% Of Contract Price)

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

KNOW ALL PERSONS BY THESE PRESENTS:

WHEREAS, the governing board ("Board") of the Pittsburg Unified School District, ("District") and _____, ("Principal") have entered into a contract for the furnishing of all materials and labor, services and transportation, necessary, convenient, and proper to perform the following project:

Highlands Elementary School – Window In-Kind Replacement

("Project" or "Contract") which Contract dated _____, 20____, and all of the Contract Documents attached to or forming a part of the Contract, are hereby referred to and made a part hereof; and

WHEREAS, pursuant to law and the Contract, the Principal is required, before entering upon the performance of the work, to file a good and sufficient bond with the body by which the Contract is awarded in an amount equal to one hundred percent (100%) of the Contract price, to secure the claims to which reference is made in sections 9000 through 9510 and 9550 through 9566 of the Civil Code, and division 2, part 7, of the Labor Code.

NOW, THEREFORE, the Principal and _____ ("Surety") are held and firmly bound unto all laborers, material men, and other persons referred to in said statutes in the sum of _____ Dollars (\$_____), lawful money of the United States, being a sum not less than the total amount payable by the terms of Contract, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, or assigns, jointly and severally, by these presents.

The condition of this obligation is that if the Principal or any of its subcontractors, or their heirs, executors, administrators, successors, or assigns of any, all, or either of them shall fail to pay for any labor, materials, provisions, or other supplies, used in, upon, for or about the performance of the work contracted to be done, or for any work or labor thereon of any kind, or for amounts required to be deducted, withheld, and paid over to the Employment Development Department from the wages of employees of the Principal or any of his or its subcontractors of any tier under Section 13020 of the Unemployment Insurance Code with respect to such work or labor, that the Surety will pay the same in an amount not exceeding the amount herein above set forth, and also in case suit is brought upon this bond, will pay a reasonable attorney's fee to be awarded and fixed by the court, and to be taxed as costs and to be included in the judgment therein rendered.

It is hereby expressly stipulated and agreed that this bond shall inure to the benefit of any and all persons, companies, and corporations entitled to file claims under section 9100 of

the Civil Code, so as to give a right of action to them or their assigns in any suit brought upon this bond.

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

And the Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of Contract or the specifications accompanying the same shall in any manner affect its obligations on this bond, and it does hereby waive notice of any such change, extension, alteration, or addition.

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

_____	_____
Principal	Surety
_____	_____
By	By

	Name of California Agent of Surety

	Address of California Agent of Surety

	Telephone No. of California Agent of Surety

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

END OF DOCUMENT

AGREEMENT AND RELEASE OF ANY AND ALL CLAIMS

THIS AGREEMENT AND RELEASE OF CLAIMS ("Agreement and Release") IS MADE AND ENTERED INTO THIS _____ DAY OF _____, 20____ by and between the PITTSBURG UNIFIED SCHOOL DISTRICT ("District") and _____ ("Contractor"), whose place of business is _____.

RECITALS:

1. District and Contractor entered into BID NO.: **18-007, Highlands Elementary School – Window In-Kind Replacement** ("Contract" or "Project") in the County of Contra Costa, California.
2. The Work under the Contract was completed on _____, and a Notice of Completion was recorded with the County Recorder on _____.

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

AGREEMENT AND RELEASE

3. Contractor will only be assessed liquidated damages as detailed below:

Original Contract Sum	\$ _____
Modified Contract Sum	\$ _____
Payment to Date	\$ _____
Liquidated Damages	\$ _____
Payment Due Contractor	\$ _____

4. Subject to the provisions hereof, District shall forthwith pay to Contractor the undisputed sum of _____ Dollars (\$_____) under the Contract, less any amounts represented by any notice to withhold funds on file with District as of the date of such payment.
5. Contractor acknowledges and hereby agrees that there are no unresolved or outstanding claims in dispute against District arising from the performance of work under the Contract, except for the claims described in Paragraph 6 and continuing obligations described in Paragraph 8. It is the intention of the parties in executing this Agreement and Release that this Agreement and Release shall be effective as a full, final and general release of all claims, demands, actions, causes of action, obligations, costs, expenses, damages, losses and liabilities of Contractor against District and all of its respective agents, employees, trustees, inspectors, assignees, consultants and transferees, except for any Disputed Claim that may be set forth in Paragraph 6 and the continuing obligations described in Paragraph 8 hereof.

6. The following claims are disputed (hereinafter, the "Disputed Claims") and are specifically excluded from the operation of this Agreement and Release:

<u>Claim No.</u>	<u>Description of Claim</u>	<u>Amount of Claim</u>	<u>Date Claim Submitted</u>
_____	_____	\$ _____	_____
_____	_____	\$ _____	_____
_____	_____	\$ _____	_____
_____	_____	\$ _____	_____

[If further space is required, attach additional sheets showing the required information.]

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

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

11. The provisions of this Agreement and Release are contractual in nature and not mere recitals and shall be considered independent and severable. If any such provision or any part thereof shall be at any time held invalid in whole or in part under any federal, state, county, municipal, or other law, ruling, or regulations, then such provision, or part thereof, shall remain in force and effect to the extent permitted by

law, and the remaining provisions of this Agreement and Release shall also remain in full force and effect, and shall be enforceable.

- 12. All rights of District shall survive completion of the Work or termination of Contract, and execution of this Release.

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

PITTSBURG UNIFIED SCHOOL DISTRICT

Signature: _____

Print Name: _____

Title: _____

CONTRACTOR: _____

Signature: _____

Print Name: _____

Title: _____

END OF DOCUMENT

GUARANTEE FORM

_____ ("Contractor") hereby agrees that the _____
_____ ("Work" of Contractor) which Contractor has installed for the Pittsburg
Unified School District ("District") for the following project:

Highlands Elementary School – Window In-Kind Replacement

("Project" or "Contract") has been performed in accordance with the requirements of the
Contract Documents and that the Work as installed will fulfill the requirements of the
Contract Documents.

The undersigned agrees to repair or replace any or all of such Work that may prove to be
defective in workmanship or material together with any other adjacent Work that may be
displaced in connection with such replacement within a period of **two (2)** year(s) from the
date of completion as defined in Public Contract Code section 7107, subdivision (c), ordinary
wear and tear and unusual abuse or neglect excepted. The date of completion is
_____, 20____.

In the event of the undersigned's failure to comply with the above-mentioned conditions
within a reasonable period of time, as determined by the District, but not later than seven
(7) days after being notified in writing by the District, the undersigned authorizes the
District to proceed to have said defects repaired and made good at the expense of the
undersigned. The undersigned shall pay the costs and charges therefor upon demand.

Date: _____

Proper Name of Contractor: _____

Signature: _____

Print Name: _____

Title: _____

Representatives to be contacted for service subject to terms of Contract:

Name: _____

Address: _____

Phone No.: _____

Email: _____

END OF DOCUMENT

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GENERAL CONDITIONS

1. CONTRACT TERMS AND DEFINITIONS

1.1 Definitions

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

1.1.1 Adverse Weather: Shall be only weather that satisfies all of the following conditions: (1) unusually severe precipitation, sleet, snow, hail, or extreme temperature conditions in excess of the norm for the location and time of year it occurred based on the closest weather station data averaged over the past five years, (2) that is unanticipated and would cause unsafe work conditions and/or is unsuitable for scheduled work that should not be performed during inclement weather (i.e., exterior finishes), and (3) at the Project.

1.1.2 Approval, Approved, and/or Accepted: Written authorization, unless stated otherwise.

1.1.3 Architect (or “Design Professional in General Charge”): The individual, partnership, corporation, joint venture, or any combination thereof, named as Architect, who will have the rights and authority assigned to the Architect in the Contract Documents. The term Architect means the Design Professional in General Responsible Charge as defined in DSA PR 13-02 on this Project or the Architect’s authorized representative.

1.1.4 As-Builts: Reproducible blue line prints of drawings to be prepared on a monthly basis pursuant to the Contract Documents, that reflect changes made during the performance of the Work, recording differences between the original design of the Work and the Work as constructed since the preceding monthly submittal. See **Record Drawings**.

1.1.5 Bidder: A contractor who intends to provide a proposal to the District to perform the Work of this Contract.

1.1.6 Change Order: A written order to the Contractor authorizing an addition to, deletion from, or revision in the Work, and/or authorizing an adjustment in the Contract Price or Contract Time.

1.1.7 Claim: A Dispute that remains unresolved at the conclusion of the all the applicable Dispute Resolution requirements provided herein.

1.1.8 Construction Change Directive: A written order prepared and issued by the District, the Construction Manager, and/or the Architect and signed by the District and the Architect, directing a change in the Work.

1.1.9 Construction Manager: The individual, partnership, corporation, joint venture, or any combination thereof, or its authorized representative, named as such by the District. If no Construction Manager is used on the Project that is the subject of this Contract, then all references to Construction Manager herein shall be read to refer to District.

1.1.10 Construction Schedule: The progress schedule of construction of the Project as provided by Contractor and approved by District.

1.1.11 Contract, Contract Documents: The Contract consists exclusively of the documents evidencing the agreement of the District and Contractor, identified as the Contract Documents. The Contract Documents consist of the following documents:

- 1.1.11.1 Notice to Bidders
- 1.1.11.2 Instructions to Bidders
- 1.1.11.3 Bid Form and Proposal
- 1.1.11.4 Bid Bond
- 1.1.11.5 Designated Subcontractors List
- 1.1.11.6 Site Visit Certification (if a site visit was required)
- 1.1.11.7 Non-Collusion Declaration
- 1.1.11.8 Notice of Award
- 1.1.11.9 Notice to Proceed
- 1.1.11.10 Agreement
- 1.1.11.11 Escrow of Bid Documentation
- 1.1.11.12 Escrow Agreement for Security Deposits in Lieu of Retention (if applicable)
- 1.1.11.13 Performance Bond
- 1.1.11.14 Payment Bond (Contractor's Labor & Material Bond)
- 1.1.11.15 General Conditions
- 1.1.11.16 Special Conditions (if applicable)
- 1.1.11.17 Project Labor Agreement (if applicable)
- 1.1.11.18 Hazardous Materials Procedures and Requirements
- 1.1.11.19 Workers' Compensation Certification
- 1.1.11.20 Prevailing Wage Certification
- 1.1.11.21 Disabled Veteran Business Enterprise Participation Certification (if applicable)
- 1.1.11.22 Drug-Free Workplace Certification (if applicable)
- 1.1.11.23 Tobacco-Free Environment Certification
- 1.1.11.24 Hazardous Materials Certification (if applicable)
- 1.1.11.25 Lead-Based Materials Certification (if applicable)
- 1.1.11.26 Imported Materials Certification (if applicable)
- 1.1.11.27 Criminal Background Investigation/Fingerprinting Certification
- 1.1.11.28 Buy American Certification (if applicable)
- 1.1.11.29 Roofing Project Certification (if applicable)
- 1.1.11.30 Iran Contracting Act Certification (if applicable)
- 1.1.11.31 Post Bid Interview
- 1.1.11.32 All Plans, Technical Specifications, and Drawings
- 1.1.11.33 Any and all addenda to any of the above documents
- 1.1.11.34 Any and all change orders or written modifications to the above documents if approved in writing by the District

1.1.12 Contract Price: The total monies payable to the Contractor under the terms and conditions of the Contract Documents.

1.1.13 Contract Time: The time period stated in the Agreement for the completion of the Work.

1.1.14 Contractor: The person or persons identified in the Agreement as contracting to perform the Work to be done under this Contract, or the legal representative of such a person or persons.

1.1.15 Daily Job Report(s): Daily Project reports prepared by the Contractor's employee(s) who are present on Site, which shall include the information required herein.

1.1.16 Day(s): Unless otherwise designated, day(s) means calendar day(s).

1.1.17 Department of Industrial Relations (or "DIR"): is responsible, among other things, for labor compliance monitoring and enforcement of California prevailing wage laws and regulations for public works contracts.

1.1.18 Design Professional in General Responsible Charge: See definition of **Architect** above.

1.1.19 Dispute: A separate demand by Contractor for a time extension, or payment of money or damages arising from Work done by or on behalf of the Contractor pursuant to the Contract and payment of which is not otherwise expressly provided for or Contractor is not otherwise entitled to; or an amount of payment disputed by the District.

1.1.20 District: The public agency or the school district for which the Work is performed. The governing board of the District or its designees will act for the District in all matters pertaining to the Contract. The District may, at any time,

1.1.20.1 Direct the Contractor to communicate with or provide notice to the Construction Manager or the Architect on matters for which the Contract Documents indicate the Contractor will communicate with or provide notice to the District; and/or

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

1.1.21 Drawings (or "Plans"): The graphic and pictorial portions of the Contract Documents showing the design, location, scope and dimensions of the work, generally including plans, elevations, sections, details, schedules, sequence of operation, and diagrams.

1.1.22 DSA: Division of the State Architect.

1.1.23 Force Account Directive: A process that may be used when the District and the Contractor cannot agree on a price for a specific portion of work or before

the Contractor prepares a price for a specific portion of work and whereby the Contractor performs the work as indicated herein on a time and materials basis.

1.1.24 Job Cost Reports: Any and all reports or records detailing the costs associated with work performed on or related to the Project that Contractor shall maintain for the Project. Specifically, Job Cost Reports shall contain, but are not limited by or to, the following information: a description of the work performed or to be performed on the Project; quantity, if applicable, of work performed (hours, square feet, cubic yards, pounds, etc.) for the Project; Project budget; costs for the Project to date; estimated costs to complete the Project; and expected costs at completion. The Job Cost Reports shall also reflect all Contract cost codes, change orders, elements of non-conforming work, back charges, and additional services.

1.1.25 Labor Commissioner's Office (or "Labor Commissioner", also known as the Division of Labor Standards Enforcement ("DLSE")): Division of the DIR responsible for adjudicating wage claims, investigating discrimination and public works complaints, and enforcing Labor Code statutes and Industrial Welfare Commission orders.

1.1.26 Municipal Separate Storm Sewer System (or "MS4"): A system of conveyances used to collect and/or convey storm water, including, without limitation, catch basins, curbs, gutters, ditches, man-made channels, and storm drains.

1.1.27 Plans: See **Drawings**.

1.1.28 Premises: The real property owned by the District on which the Site is located.

1.1.29 Product(s): New material, machinery, components, equipment, fixtures and systems forming the Work, including existing materials or components required and approved by the District for reuse.

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

1.1.31 Program Manager: The individual, partnership, corporation, joint venture, or any combination thereof, or its authorized representative, named as such by the District. If no Program Manager is designated for Project that is the subject of this Contract, then all references to Project Manager herein shall be read to refer to District.

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

1.1.33 Project Inspector (or "Inspector"): The individual(s) retained by the District in accordance with title 24 of the California Code of Regulations to monitor and inspect the Project.

1.1.34 Project Labor Agreement (or "PLA"): a prehire collective bargaining agreement in accordance with Public Contract Code section 2500 *et seq.* that

establishes terms and conditions of employment for a specific construction project or projects and/or is an agreement described in Section 158(f) of Title 29 of the United States Code.

1.1.35 Proposed Change Order (or "PCO"): a written request prepared by the Contractor requesting that the District and the Architect issue a Change Order based upon a proposed change to the Work.

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

1.1.37 Qualified SWPPP Practitioners (or "QSP"): certified personnel that attended a State Water Resources Control Board sponsored or approved training class and passed the qualifying exam.

1.1.38 Record Drawings: Reproducible drawings (or Plans) prepared pursuant to the requirements of the Contract Documents that reflect all changes made during the performance of the Work, recording differences between the original design of the Work and the Work as constructed upon completion of the Project. See also **As-Builts**.

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

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

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

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

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

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

1.1.45 Site: The Project site as shown on the Drawings.

1.1.46 Specifications: That portion of the Contract Documents, Division 1 through Division 49, and all technical sections, and addenda to all of these, if any, consisting of written descriptions and requirements of a technical nature of materials, equipment, construction methods and systems, standards, and workmanship.

1.1.47 State: The State of California.

1.1.48 Storm Water Pollution Prevention Plan (or "SWPPP"): A document which identifies sources and activities at a particular facility that may contribute pollutants to storm water and contains specific control measures and time frames to prevent or treat such pollutants.

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

1.1.50 Submittal Schedule: The schedule of submittals as provided by Contractor and approved by District.

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

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

1.2 Laws Concerning the Contract

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

1.3 No Oral Agreements

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

1.4 No Assignment

Contractor shall not assign this Contract or any part thereof including, without limitation, any services or money to become due hereunder without the prior written consent of the District. Assignment without District's prior written consent shall be null and void. Any assignment of money due or to be come due under this Contract shall be subject to a prior lien for services rendered or material supplied for performance of work called for

under this Contract in favor of all persons, firms, or corporations rendering services or supplying material to the extent that claims are filed pursuant to the Civil Code, Code of Civil Procedure, Government Code, Labor Code, and/or Public Contract Code, and shall also be subject to deductions for liquidated damages or withholding of payments as determined by District in accordance with this Contract. Contractor shall not assign or transfer in any manner to a Subcontractor or supplier the right to prosecute or maintain an action against the District.

1.5 Notice and Service Thereof

1.5.1 Any notice from one party to the other or otherwise under Contract shall be in writing and shall be dated and signed by the party giving notice or by a duly authorized representative of that party. Any notice shall not be effective for any purpose whatsoever unless served in one of the following manners:

1.5.1.1 If notice is given by personal delivery thereof, it shall be considered delivered on the day of delivery.

1.5.1.2 If notice is given by overnight delivery service, it shall be considered delivered on one (1) day after date deposited, as indicated by the delivery service.

1.5.1.3 If notice is given by depositing same in United States mail, enclosed in a sealed envelope, it shall be considered delivered three (3) days after date deposited, as indicated by the postmarked date.

1.5.1.4 If notice is given by registered or certified mail with postage prepaid, return receipt requested, it shall be considered delivered on the day the notice is signed for.

1.5.1.5 Electronic mail may be used for convenience but is not a substitute for the notice and service requirements herein.

1.6 No Waiver

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

1.7 Substitutions for Specified Items

Unless the Special Conditions contain different provisions, Contractor shall not substitute different items for any items identified in the Contract Documents without prior written approval of the District.

1.8 Materials and Work

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

1.8.2 Unless otherwise specified, all materials shall be new and of the best quality of their respective kinds and grades as noted or specified, workmanship shall be of good quality, and Contractor shall use all diligence to inform itself fully as to the required manufacturer's instructions and to comply therewith.

1.8.3 Materials shall be furnished in ample quantities and at such times as to insure uninterrupted progress of Work and shall be stored properly and protected from the elements, theft, vandalism, or other loss or damage as required.

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

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

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

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

political subdivision. In the event of installation of any such metering device or equipment, Contractor shall advise District as to owner thereof.

1.8.7.1 If a lien or a claim based on a stop payment notice of any nature should at any time be filed against the Work or any District property, by any entity that has supplied material or services at the request of the Contractor, Contractor and Contractor's Surety shall promptly, on demand by District and at Contractor's and Surety's own expense, take any and all action necessary to cause any such lien or a claim based on a stop payment notice to be released or discharged immediately therefrom.

1.8.7.2 If the Contractor fails to furnish to the District within ten (10) calendar days after demand by the District, satisfactory evidence that a lien or a claim based on a stop payment notice has been so released, discharged, or secured, the District may discharge such indebtedness and deduct the amount required therefor, together with any and all losses, costs, damages, and attorney's fees and expense incurred or suffered by District from any sum payable to Contractor under the Contract.

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

1.8.9 Title to new materials and/or equipment for the Work of this Contract and attendant liability for its protection and safety shall remain with Contractor until incorporated in the Work of this Contract and accepted by District. No part of any materials and/or equipment shall be removed from its place of storage except for immediate installation in the Work of this Contract. Should the District, in its discretion, allow the Contractor to store materials and/or equipment for the Work off-site, Contractor will store said materials and/or equipment at a bonded warehouse and with appropriate insurance coverage at no cost to District. Contractor shall keep an accurate inventory of all materials and/or equipment in a manner satisfactory to District or its authorized representative and shall, at the District's request, forward it to the District.

2. [RESERVED]

3. ARCHITECT

3.1 The Architect shall represent the District during the Project and will observe the progress and quality of the Work on behalf of the District. Architect shall have the authority to act on behalf of District to the extent expressly provided in the Contract Documents and to the extent determined by District. Architect shall have authority to reject materials, workmanship, and/or the Work whenever rejection may be necessary, in Architect's reasonable opinion, to insure the proper execution of the Contract.

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

3.3 Architect shall have all authority and responsibility established by law, including title 24 of the California Code of Regulations.

3.4 Contractor shall provide District and the Construction Manager with a copy of all written communication between Contractor and Architect at the same time as that communication is made to Architect, including, without limitation, all RFIs, correspondence, submittals, claims, and proposed change orders.

4. CONSTRUCTION MANAGER

4.1 If a Construction Manager is used on this Project ("Construction Manager" or "CM"), the Construction Manager will provide administration of the Contract on the District's behalf. After execution of the Contract and Notice to Proceed, all correspondence and/or instructions from Contractor and/or District shall be forwarded through the Construction Manager. The Construction Manager will not be responsible for and will not have control or charge of construction means, methods, techniques, sequences, or procedures or for safety precautions in connection with the Work, which shall all remain the Contractor's responsibility.

4.2 The Construction Manager, however, will have authority to reject materials and/or workmanship not conforming to the Contract Documents, as determined by the District, the Architect, and/or the Project Inspector. The Construction Manager shall also have the authority to require special inspection or testing of any portion of the Work, whether it has been fabricated, installed, or fully completed. Any decision made by the Construction Manager, in good faith, shall not give rise to any duty or responsibility of the Construction Manager to: the Contractor; any Subcontractor; the Contractor or Subcontractor's respective agents, employees; or other persons performing any of the Work. The Construction Manager shall have free access to any or all parts of Work at any time.

4.3 If the District does not use a Construction Manager on this Project, all references to Construction Manager or CM shall be read as District.

5. INSPECTOR, INSPECTIONS, AND TESTS

5.1 Project Inspector

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

5.1.2 No Work shall be carried on except with the knowledge and under the inspection of the Project Inspector(s). The Project Inspector(s) shall have free

access to any or all parts of Work at any time. Contractor shall furnish Project Inspector(s) reasonable opportunities for obtaining such information as may be necessary to keep Project Inspector(s) fully informed respecting progress and manner of work and character of materials, including, but not limited to, submission of form DSA 156 (or the most current version applicable at the time the Work is performed) to the Project Inspector at least 48 hours in advance of the commencement and completion of construction of each and every aspect of the Work. Forms are available on the DSA's website at: <http://www.dgs.ca.gov/dsa/Forms.aspx>. Inspection of Work shall not relieve Contractor from an obligation to fulfill this Contract. Project Inspector(s) and the DSA are authorized to suspend work whenever the Contractor and/or its Subcontractor(s) are not complying with the Contract Documents. Any work stoppage by the Project Inspector(s) and/or DSA shall be without liability to the District. Contractor shall instruct its Subcontractors and employees accordingly.

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

5.2 Tests and Inspections

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

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

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

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

5.2.5 The District will select the testing laboratory and pay for the cost of all tests and inspections. Contractor shall reimburse the District for any and all laboratory costs or other testing costs for any materials found to be not in compliance with the Contract Documents. At the District's discretion, District may elect to deduct laboratory or other testing costs for noncompliant materials from the Contract Price, and such deduction shall not constitute a withholding.

5.3 Costs for After Hours and/or Off Site Inspections

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

6. CONTRACTOR

Contractor shall construct and complete, in a good and workmanlike manner, the Work for the Contract Price including any adjustment(s) to the Contract Price pursuant to provisions herein regarding changes to the Contract Price. Except as otherwise noted, Contractor shall provide and pay for all labor, materials, equipment, permits (excluding DSA), fees, licenses, facilities, transportation, taxes, bonds and insurance, and services necessary for the proper execution and completion of the Work, except as indicated herein.

6.1 Status of Contractor

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

6.1.2 As required by law, Contractor and all Subcontractors shall be properly licensed and regulated by the Contractor's State License Board, 9821 Business Park Drive, Sacramento, California 95827, <http://www.cslb.ca.gov>.

6.1.3 As required by law, Contractor and all Subcontractors shall be properly registered as public works contractors by the Department of Industrial Relations at: <https://efiling.dir.ca.gov/PWCR/ActionServlet?action=displayPWCRegistrationForm> or current URL.

6.1.4 Contractor represents that it has no existing interest and will not acquire any interest, direct or indirect, which could conflict in any manner or degree with the performance of Work required under this Contractor and that no person having any such interest shall be employed by Contractor.

6.2 Project Inspection Card(s)

Contractor shall verify that forms DSA 152 (or the current version applicable at the time the Work is performed) are issued for the Project prior to the commencement of construction.

6.3 Contractor's Supervision

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

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

6.3.3 Before commencing the Work herein, Contractor shall give written notice to District of the name of its project manager and construction superintendent. Neither the Contractor's project manager nor construction superintendent shall be changed except with prior written notice to District. If the Contractor's project manager and/or construction superintendent proves to be unsatisfactory to Contractor, or to District, any of the District's employees, agents, the Construction Manager, or the Architect, Contractor shall notify District in writing before any change occurs, but no less than two (2) business days prior. Any replacement of the project manager and/or construction superintendent shall be made promptly and must be satisfactory to the District. The Contractor's project manager and construction superintendent shall each represent Contractor, and all directions given to Contractor's project manager and/or construction superintendent shall be as binding as if given to Contractor.

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

6.4 Duty to Provide Fit Workers

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

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

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

6.4.4 If Contractor intends to make any change in the name or legal nature of the Contractor's entity, Contractor must first notify the District in writing prior to

making any contemplated change. The District shall determine in writing if Contractor's intended change is permissible while performing this Contract.

6.5 Field Office

6.5.1 Contractor shall provide a temporary office on the Work Site for the District's use exclusively, during the term of the Contract.

6.6 Purchase of Materials and Equipment

The Contractor is required to order, obtain, and store materials and equipment sufficiently in advance of its Work at no additional cost or advance payment from District to assure that there will be no delays.

6.7 Documents on Work

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

6.7.2 Daily Job Reports.

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

- 6.7.2.1.1** A brief description of all Work performed on that day.
- 6.7.2.1.2** A summary of all other pertinent events and/or occurrences on that day.
- 6.7.2.1.3** The weather conditions on that day.
- 6.7.2.1.4** A list of all Subcontractor(s) working on that day,
- 6.7.2.1.5** A list of each Contractor employee working on that day and the total hours worked for each employee.
- 6.7.2.1.6** A complete list of all equipment on Site that day, whether in use or not.
- 6.7.2.1.7** All complete list of all materials, supplies, and equipment delivered on that day.

6.7.2.1.8 A complete list of all inspections and tests performed on that day.

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

6.8 Preservation of Records

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

6.9 Integration of Work

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

6.9.2 Contractor shall make its own layout of lines and elevations and shall be responsible for the accuracy of both Contractor's and Subcontractors' work resulting therefrom.

6.9.3 Contractor and all Subcontractors shall take all field dimensions required in performance of the Work, and shall verify all dimensions and conditions on the Site. All dimensions affecting proper fabrication and installation of all Work must be verified prior to fabrication by taking field measurements of the true conditions. If there are any discrepancies between dimensions in drawings and existing conditions which will affect the Work, Contractor shall bring such discrepancies to the attention of the District and Architect for adjustment before proceeding with the Work. In doing so, it is recognized that Contractor is not acting in the capacity of a licensed design professional, and that Contractor's examination is made in good faith to facilitate construction and does not create an affirmative responsibility to detect errors, omissions or inconsistencies in the Contract Documents or to ascertain

compliance with applicable laws, building codes or regulations. Following receipt of written notice from Contractor, the District and/or Architect shall inform Contractor what action, if any, Contractor shall take with regard to such discrepancies.

6.9.4 All costs caused by noncompliant, defective, or delayed Work shall be borne by Contractor, inclusive of repair work.

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

6.10 Notifications

6.10.1 Contractor shall notify the Architect and Project Inspector, in writing, of the commencement of construction of each and every aspect of the Work at least 48 hours in advance by submitting form DSA 156 (or the most current version applicable at the time the Work is performed) to the Project Inspector. Forms are available on the DSA's website at: <http://www.dgs.ca.gov/dsa/Forms.aspx>.

6.10.2 Contractor shall notify the Architect and Project Inspector, in writing, of the completion of construction of each and every aspect of the Work at least 48 hours in advance by submitting form DSA 156 (or current version) to the Project Inspector.

6.11 Obtaining of Permits, Licenses and Registrations

Contractor shall secure and pay for all permits (except DSA), licenses, registrations, approvals and certificates necessary for prosecution of Work, including but not limited to those listed in the Special Conditions, if any, before the date of the commencement of the Work or before the permits, licenses, registrations, approvals and certificates are legally required to continue the Work without interruption. The Contractor shall obtain and pay, only when legally required, for all licenses, registrations, approvals, permits, inspections, and inspection certificates required to be obtained from or issued by any authority having jurisdiction over any part of the Work included in the Contract. All final permits, licenses, registrations, approvals and certificates shall be delivered to District before demand is made for final payment.

6.12 Royalties and Patents

6.12.1 Contractor shall obtain and pay, only when legally required, all royalties and license fees necessary for prosecution of Work before the earlier of the date of the commencement of the Work or the date that the license is legally required to continue the Work without interruption. Contractor shall defend suits or claims of infringement of patent, copyright, or other rights and shall hold the District, the Architect, and the Construction Manager harmless and indemnify them from loss on account thereof except when a particular design, process, or make or model of product is required by the Contract Documents. However, if the Contractor has reason to believe that the required design, process, or product is an infringement of a patent or copyright, the Contractor shall indemnify and defend the District, Architect and Construction Manager against any loss or damage unless the Contractor promptly informs the District of its information.

6.12.2 The review by the District or Architect of any method of construction, invention, appliance, process, article, device, or material of any kind shall be only its adequacy for the Work and shall not approve use by the Contractor in violation of any patent or other rights of any person or entity.

6.13 Work to Comply With Applicable Laws and Regulations

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

6.13.1.1 National Electrical Safety Code, U. S. Department of Commerce

6.13.1.2 National Board of Fire Underwriters' Regulations

6.13.1.3 Uniform Building Code, latest addition, and the California Code of Regulations, title 24, and other amendments

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

6.13.1.5 Industrial Accident Commission's Safety Orders, State of California

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

6.13.1.7 Americans with Disabilities Act

6.13.1.8 Education Code of the State of California

6.13.1.9 Government Code of the State of California

6.13.1.10 Labor Code of the State of California, division 2, part 7, Public Works and Public Agencies

6.13.1.11 Public Contract Code of the State of California

6.13.1.12 California Art Preservation Act

6.13.1.13 U. S. Copyright Act

6.13.1.14 U. S. Visual Artists Rights Act

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

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

6.13.4 Where Specifications or Drawings state that materials, processes, or procedures must be approved by the DSA, State Fire Marshall, or other body or agency, Contractor shall be responsible for satisfying requirements of such bodies or agencies applicable at the time the Work is performed, and as determined by those bodies or agencies.

6.14 Safety/Protection of Persons and Property

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

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

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

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

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

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

6.14.7 Contractor shall take, and require Subcontractors to take, all necessary precautions for safety of workers on the Project and shall comply with all applicable federal, state, local, and other safety laws, standards, orders, rules, regulations, and building codes to prevent accidents or injury to persons on, about, or adjacent to premises where Work is being performed and to provide a safe and healthful place of employment. Contractor shall furnish, erect, and properly maintain at all times, all necessary safety devices, safeguards, construction canopies, signs, nets, barriers,

lights, and watchmen for protection of workers and the public and shall post danger signs warning against hazards created by such features in the course of construction.

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

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

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

6.14.11 Contractor shall comply with any District storm water requirements that are approved by the District and applicable to the Project, at no additional cost to the District.

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

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

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

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

6.14.16 The Contractor shall protect and preserve the Work from all damage or accident, providing any temporary roofs, window and door coverings, boxings, or other construction as required by the Architect. The Contractor shall be responsible for existing structures, walks, roads, trees, landscaping, and/or improvements in working areas; and shall provide adequate protection therefore. If temporary removal is necessary of any of the above items, or damage occurs due to the Work, the Contractor shall replace same at his expense with same kind, quality, and size of

Work or item damaged. This shall include any adjoining property of the District and others.

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

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

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

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

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

6.15 Working Evenings and Weekends

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

6.16 Cleaning Up

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

6.16.2 Contractor at all times shall keep Premises, including property immediately adjacent thereto, free from debris such as waste, rubbish (including personal rubbish of workers, e.g., food wrappers, etc.), and excess materials and equipment caused by the Work. Contractor shall not leave debris under, in, or about the Premises (or surrounding property or neighborhood), but shall promptly remove same from the Premises on a daily basis. If Contractor fails to clean up, District may do so and the cost thereof shall be charged to Contractor. If Contract is for work on an existing facility, Contractor shall also perform specific clean-up on or about the Premises upon request by the District as it deems necessary for the continuing education process. Contractor shall comply with all related provisions of the Specifications.

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

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

7. SUBCONTRACTORS

7.1 Contractor shall provide the District with information for all Subcontracts as indicated in the Contractor's Submittals and Schedules Section herein.

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

7.3 Contractor agrees to bind every Subcontractor by terms of this Contract as far as those terms that are applicable to Subcontractor's work including, without limitation, all labor, wage & hour, apprentice and related provisions and requirements. If Contractor shall subcontract any part of this Contract, Contractor shall be as fully responsible to District for acts and omissions of any Subcontractor and of persons either directly or indirectly employed by any Subcontractor, including Subcontractor caused

Project delays, as it is for acts and omissions of persons directly employed by Contractor. The divisions or sections of the Specifications and/or the arrangement of the drawings are not intended to control the Contractor in dividing the Work among Subcontractors or limit the work performed by any trade.

7.4 District's consent to, or approval of, or failure to object to, any Subcontractor under this Contract shall not in any way relieve Contractor of any obligations under this Contract and no such consent shall be deemed to waive any provisions of this Contract.

7.5 Contractor is directed to familiarize itself with sections 4100 through 4114 of the Public Contract Code of the State of California, as regards subletting and subcontracting, and to comply with all applicable requirements therein. In addition, Contractor is directed to familiarize itself with sections 1720 through 1861 of the Labor Code of the State of California, as regards the payment of prevailing wages and related issues, and to comply with all applicable requirements therein including, without limitation, section 1775 and the Contractor's and Subcontractors' obligations and liability for violations of prevailing wage law and other applicable laws.

7.6 No Contractor whose Bid is accepted shall, without consent of the awarding authority and in full compliance with section 4100 *et seq.* of the Public Contract Code, including, without limitation, sections 4107, 4107.5, and 4109 of the Public Contract Code, and section 1771.1 of the Labor Code, either:

7.6.1 Substitute any person as a Subcontractor in place of the Subcontractor designated in the original Bid; or

7.6.2 Permit any Subcontract to be assigned or transferred, or allow any portion of the Work to be performed by anyone other than the original Subcontractor listed in the Bid; or

7.6.3 Sublet or subcontract any portion of the Work in excess of one-half of one percent (0.5%) of the Contractor's total bid as to which his original bid did not designate a Subcontractor.

7.7 The Contractor shall be responsible for the coordination of the trades, Subcontractors, sub-subcontractors, and material or equipment suppliers working on the Project.

7.7.1 If the Contract is valued at \$1 million or more and uses, or plans to use, state bond funds, then Contractor is responsible for ensuring that first tier Subcontractors holding C-4, C-7, C-10, C-16, C-20, C-34, C-36, C-38, C-42, C-43, and/or C-46 licenses are prequalified by the District to work on the Project pursuant to Public Contract Code section 20111.6.

7.7.2 Contractor is responsible for ensuring that all Subcontractors are properly registered as public works contractors by the Department of Industrial Relations.

7.8 Contractor is solely responsible for settling any differences between the Contractor and its Subcontractor(s) or between Subcontractors.

7.9 Contractor must include in all of its subcontracts the assignment provisions as

indicated in the Termination section of these General Conditions.

8. OTHER CONTRACTS/CONTRACTORS

8.1 District reserves the right to let other contracts, and/or to perform work with its own forces, in connection with the Project. Contractor shall afford other contractors reasonable opportunity for introduction and storage of their materials and execution of their work and shall properly coordinate and connect Contractor's Work with the work of other contractors.

8.2 In addition to Contractor's obligation to protect its own Work, Contractor shall protect the work of any other contractor that Contractor encounters while working on the Project.

8.3 If any part of Contractor's Work depends for proper execution or results upon work of District or any other contractor, the Contractor shall inspect and, before proceeding with its Work, promptly report to the District in writing any defects in District's or any other contractor's work that render Contractor's Work unsuitable for proper execution and results. Contractor shall be held accountable for damages to District for District's or any other contractor's work that Contractor failed to inspect or should have inspected. Contractor's failure to inspect and report shall constitute Contractor's acceptance of all District's or any other contractor's work as fit and proper for reception of Contractor's Work, except as to defects that may develop in District's or any other contractor's work after execution of Contractor's Work and not caused by execution of Contractor's Work.

8.4 To ensure proper execution of its subsequent work, Contractor shall measure and inspect work already in place and shall at once report to the District in writing any discrepancy between that executed work and the Contract Documents.

8.5 Contractor shall ascertain to its own satisfaction the scope of the Project and nature of District's or any other contracts that have been or may be awarded by District in prosecution of the Project to the end that Contractor may perform this Contract in light of the other contracts, if any.

8.6 Nothing herein contained shall be interpreted as granting to Contractor exclusive occupancy of the Site, the Premises, or of the Project. Contractor shall not cause any unnecessary hindrance or delay to the use and/or school operation(s) of the Premises and/or to District or any other contractor working on the Project. If simultaneous execution of any contract or school operation is likely to cause interference with performance of Contractor's Contract, Contractor shall coordinate with those contractor(s), person(s), and/or entity(s) and shall notify the District of the resolution.

9. DRAWINGS AND SPECIFICATIONS

9.1 A complete list of all Drawings that form a part of the Contract is to be found as an index on the Drawings themselves, and/or may be provided to the Contractor and/or in the Table of Contents.

9.2 Materials or Work described in words that so applied have a well-known technical or trade meaning shall be deemed to refer to recognized standards, unless noted otherwise.

9.3 Trade Name or Trade Term. It is not the intention of this Contract to go into detailed descriptions of any materials and/or methods commonly known to the trade under "trade name" or "trade term." The mere mention or notation of "trade name" or "trade term" shall be considered a sufficient notice to Contractor that it will be required to complete the work so named, complete, finished, and operable, with all its appurtenances, according to the best practices of the trade.

9.4 The naming of any material and/or equipment shall mean furnishing and installing of same, including all incidental and accessory items thereto and/or labor therefor, as per best practices of the trade(s) involved, unless specifically noted otherwise.

9.5 Contract Documents are complementary, and what is called for by one shall be binding as if called for by all. As such, Drawings and Specifications are intended to be fully cooperative and to agree. However, if Contractor observes that Drawings and Specifications are in conflict with the Contract Documents, Contractor shall promptly notify District and Architect in writing, and any necessary changes shall be made as provided in the Contract Documents.

9.6 In the case of discrepancy or ambiguity in the Contract Documents, the order of precedence in the Agreement shall prevail. However, in the case of discrepancy or ambiguity solely between and among the Drawings and Specifications, the discrepancy or ambiguity shall be resolved in favor of the interpretation that will provide District with the functionally complete and operable Project described in the Drawings and Specifications. In case of ambiguity, conflict, or lack of information, District will furnish clarifications with reasonable promptness.

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

9.8 As required by Section 4-317(c), Part 1, Title 24, CCR: "Should any existing conditions such as deterioration or non-complying construction be discovered which is not covered by the DSA-approved documents wherein the finished work will not comply with Title 24, California Code of Regulations, a construction change document, or a

separate set of plans and specifications, detailing and specifying the required repair work shall be submitted to and approved by DSA before proceeding with the repair work.”

9.9 Ownership of Drawings

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

10. CONTRACTOR’S SUBMITTALS AND SCHEDULES

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

10.1 Schedule of Work, Schedule of Submittals, and Schedule of Values

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

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

10.1.1.2 Preliminary Schedule of Values. A preliminary schedule of values for all of the Work, which must include quantities and prices of items aggregating the Contract Price and must subdivide the Work into component parts in sufficient detail to serve as the basis for progress payments during construction. Unless the Special Conditions contain different limits, this preliminary schedule of values shall include, at a minimum, the following information and the following structure:

10.1.1.2.1 Divided into at least the following categories:

10.1.1.2.1.1 Overhead and profit;

- 10.1.1.2.1.2 Supervision;
- 10.1.1.2.1.3 General conditions;
- 10.1.1.2.1.4 Layout;
- 10.1.1.2.1.5 Mobilization;
- 10.1.1.2.1.6 Submittals;
- 10.1.1.2.1.7 Bonds and insurance;
- 10.1.1.2.1.8 Close-out/Certification documentation;
- 10.1.1.2.1.9 Demolition;
- 10.1.1.2.1.10 Installation;
- 10.1.1.2.1.11 Rough-in;
- 10.1.1.2.1.12 Finishes;
- 10.1.1.2.1.13 Testing;
- 10.1.1.2.1.14 Punchlist and acceptance.

10.1.1.2.2 And also divided by each of the following areas:

- 10.1.1.2.2.1 Site work;
- 10.1.1.2.2.2 By each building;
- 10.1.1.2.2.3 By each floor.

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

- 10.1.1.2.3.1 Mobilization and layout combined to equal not more than 1%;
- 10.1.1.2.3.2 Submittals, samples and shop drawings combined to equal not more than 3%;
- 10.1.1.2.3.3 Bonds and insurance combined to equal not more than 2%.

10.1.1.2.4 Closeout documentation shall have a value in the preliminary schedule of not less than 5%.

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

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

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

10.1.1.3 Preliminary Schedule of Submittals. A preliminary schedule of submittals, including Shop Drawings, Product Data, and Samples submittals. Once approved by District, this shall become the Submittal Schedule. All submittals shall be forwarded to the District by the date indicated on the approved Submittal Schedule, unless an earlier date is necessary to maintain the Construction Schedule, in which case those submittals shall be forwarded to the District so as not to delay the Construction Schedule. Upon request by the District, Contractor shall provide an electronic copy of all submittals to the District. All submittals shall be submitted no later than 90 days after the Notice to Proceed.

10.1.1.4 Safety Plan. Contractor's Safety Plan specifically adapted for the Project. Contractor's Safety Plan shall comply with the following requirements:

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

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

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

10.1.1.5 Complete Subcontractor List. The name, address, telephone number, facsimile number, California State Contractors License number, classification, and monetary value of all Subcontracts for parties furnishing labor, material, or equipment for completion of the Project.

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

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

10.1.4 The District shall have the right at any time to revise the schedule of values if, in the District's sole opinion, the schedule of values does not accurately reflect the value of the Work performed.

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

10.2 Monthly Progress Schedule(s)

10.2.1 Contractor shall provide Monthly Progress Schedule(s) to the District. A Monthly Progress Schedule shall update the approved Construction Schedule or the last Monthly Progress Schedule, showing all work completed and to be completed. The monthly Progress Schedule shall be sent within the timeframe requested by the District and shall be in a format acceptable to the District and contain a written narrative of the progress of work that month and any changes, delays, or events that may affect the work. The process for District approval of the Monthly Progress Schedule shall be the same as the process for approval of the Construction Schedule.

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

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

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

10.2.5 The District shall have the right at any time to revise the schedule of values if, in the District's sole opinion, the schedule of values does not accurately reflect the value of the Work performed.

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

10.3 Material Safety Data Sheets (MSDS)

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

11. SITE ACCESS, CONDITIONS, AND REQUIREMENTS

11.1 Site Investigation

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

Prior to commencing the Work, Contractor and the District's representative shall survey the Site to document the condition of the Site. Contractor will record the survey in digital videotape format and provide an electronic copy to the District within fourteen (14) days of the survey. This electronic record shall serve as a basis for determining any damages caused by the Contractor during the Project. The Contractor may also document any pre-existing conditions in writing, provided that both the Contractor and the District's representative agree on said conditions and sign a memorandum documenting the same.

11.2 Soils Investigation Report

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

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

11.3 Access to Work

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

11.4 Layout and Field Engineering

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

11.4.2 The Contractor shall be responsible for having ascertained pertinent local conditions such as location, accessibility, and general character of the Site and for having satisfied itself as to the conditions under which the Work is to be performed. Contractor shall follow best practices, including but not limited to potholing to avoid utilities. District shall not be liable for any claim for allowances because of

Contractor's error, failure to follow best practices, or negligence in acquainting itself with the conditions at the Site.

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

11.5 Utilities

Utilities shall be provided as indicated in the Specifications.

11.6 Sanitary Facilities

Sanitary facilities shall be provided as indicated in the Specifications.

11.7 Surveys

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

11.8 Regional Notification Center

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

11.9 Existing Utility Lines

11.9.1 Pursuant to Government Code section 4215, District assumes the responsibility for removal, relocation, and protection of main or trunk utility lines and facilities located on the construction Site at the time of commencement of construction under this Contract with respect to any such utility facilities that are not identified in the Plans and Specifications. Contractor shall not be assessed for liquidated damages for delay in completion of the Project caused by failure of District or the owner of a utility to provide for removal or relocation of such utility facilities.

11.9.2 Locations of existing utilities provided by District shall not be considered exact, but approximate within a reasonable margin and shall not relieve Contractor of responsibilities to exercise reasonable care or costs of repair due to Contractor's

failure to do so. District shall compensate Contractor for the costs of locating, repairing damage not due to the failure of Contractor to exercise reasonable care, and removing or relocating such utility facilities not indicated in the Plans and Specifications with reasonable accuracy, and for equipment necessarily idle during such work.

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

11.9.4 If Contractor, while performing Work under this Contract, discovers utility facilities not identified by District in Contract Plans and Specifications, Contractor shall immediately notify the District and the utility in writing. The cost of repair for damage to above-mentioned visible facilities without prior written notification to the District shall be borne by the Contractor.

11.10 Notification

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

11.11 Hazardous Materials

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

11.12 No Signs

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

12. TRENCHES

12.1 Trenches Greater Than Five Feet

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

protection from the hazard of caving ground during the excavation of such trench or trenches.

12.2 Excavation Safety

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

12.3 No Tort Liability of District

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

12.4 No Excavation without Permits

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

12.5 Discovery of Hazardous Waste and/or Unusual Conditions

12.5.1 Pursuant to Public Contract Code section 7104, if the Work involves digging trenches or other excavations that extend deeper than four feet below the Surface, the Contractor shall promptly, and before the following conditions are disturbed, notify the District, in writing, of any:

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

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

12.5.1.3 Unknown physical conditions at the Site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract.

12.5.2 The District shall promptly investigate the conditions, and if it finds that the conditions do materially so differ, or do involve hazardous waste, and cause a decrease or increase in the Contractor's cost of, or the time required for, performance of any part of the Work, shall issue a Change Order under the procedures described herein.

12.5.3 In the event that a dispute arises between District and the Contractor whether the conditions materially differ, or involve hazardous waste, or cause a

decrease or increase in the Contractor's cost of, or time required for, performance of any part of the Work, the Contractor shall not be excused from any scheduled completion date provided for by the Contract, but shall proceed with all work to be performed under the Contract. The Contractor shall retain any and all rights provided either by Contract or by law that pertain to the resolution of disputes and protests.

13. INSURANCE AND BONDS

13.1 Insurance

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

13.1.1 Commercial General Liability and Automobile Liability Insurance

13.1.1.1 Contractor shall procure and maintain, during the life of this Contract, Commercial General Liability Insurance and Automobile Liability Insurance that shall protect Contractor, District, State, Construction Manager(s), Project Inspector(s), and Architect(s) from all claims for bodily injury, property damage, personal injury, death, advertising injury, and medical payments arising from operations under this Contract. This coverage shall be provided in a form at least as broad as Insurance Services (ISO) Form CG 0001 11188. Contractor shall ensure that Products Liability and Completed Operations coverage, Fire Damage Liability, and Any Auto including owned, non-owned, and hired, are included within the above policies and at the required limits, or Contractor shall procure and maintain these coverages separately.

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

13.1.1.3 All such policies shall be written on an occurrence form.

13.1.2 Excess Liability Insurance

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

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

13.1.2.3 The District, in its sole discretion, may accept the Excess Liability Insurance Policy that bring Contractor's primary limits to the minimum requirements herein.

13.1.3 Subcontractor(s): Contractor shall require its Subcontractor(s), if any, to procure and maintain Commercial General Liability Insurance, Automobile Liability Insurance, and Excess Liability Insurance (if Subcontractor elects to satisfy, in part the insurance required herein by procuring and maintaining an Excess Liability Insurance Policy) with forms of coverage and limits equal to the amounts required of the Contractor.

13.1.4 Workers' Compensation and Employers' Liability Insurance

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

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

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

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

13.1.6 Pollution Liability Insurance

13.1.6.1 Contractor shall procure and maintain Pollution Liability Insurance that shall protect Contractor, District, State, Construction Manager(s), Project Inspector(s), and Architect(s) from all claims for bodily injury, property damage, including natural resource damage, cleanup costs, removal, storage, disposal, and/or use of the pollutant arising from operations under this Contract, and defense, including costs and expenses incurred in the investigation, defense, or settlement of claims. Coverage shall apply to sudden and/or gradual pollution conditions resulting from the escape or release of smoke, vapors, fumes, acids, alkalis, toxic chemicals, liquids, or gases, natural gas, waste materials, or other irritants, contaminants, or pollutants, including asbestos. This coverage shall be provided in a form at least as broad as Insurance Services Offices, Inc. (ISO) Form CG 2415, or Contractor shall procure and maintain these coverages separately.

13.1.6.2 Contractor shall warrant that any retroactive date applicable to coverage under the policy predates the effective date of the Contract and that continuous coverage will be maintained or an extended reporting or discovery period will be exercised for a period of three (3) years, beginning from the time that the Work under the Contract is completed.

13.1.6.3 If Contractor is responsible for removing any pollutants from a site, then Contractor shall ensure that Any Auto, including owned, non-owned, and hired, is included within the above policies and at the required limits, to cover its automobile exposure from transporting the pollutants from the site to an approved disposal site. This coverage shall include the Motor Carrier Act Endorsement, MCS 90.

13.1.7 Proof of Insurance and Other Requirements: Endorsements and Certificates

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

13.1.7.2 Endorsements, certificates, and insurance policies shall include the following:

13.1.7.2.1 A clause stating:

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

13.1.7.2.2 Language stating in particular those insured, extent of insurance, location and operation to which insurance applies, expiration date,

to whom cancellation and reduction notice will be sent, and length of notice period.

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

13.1.7.4 Insurance written on a "claims made" basis shall be retroactive to a date that coincides with or precedes Contractor's commencement of Work, including subsequent policies purchased as renewals or replacements. Said policy is to be renewed by the Contractor and all Subcontractors for a period of five (5) years following completion of the Work or termination of this Agreement. Such insurance must have the same coverage and limits as the policy that was in effect during the term of this Agreement, and will cover the Contractor and all Subcontractors for all claims made.

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

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

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

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

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

13.1.8 Insurance Policy Limits

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

Commercial General Liability	Product Liability and Completed Operations, Fire Damage Liability – Split Limit	\$2,000,000 per occurrence; \$4,000,000 aggregate
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Automobile Liability – Any Auto	Combined Single Limit	\$1,000,000
Workers' Compensation		Statutory limits pursuant to State law
Employers' Liability		\$1,000,000
Builder's Risk (Course of Construction)		Issued for the value and scope of Work indicated herein.
Pollution Liability		\$1,000,000 per claim; \$2,000,000 aggregate

13.2 Contract Security - Bonds

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

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

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

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

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

14. WARRANTY/GUARANTEE/INDEMNITY

14.1 Warranty/Guarantee

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

14.1.2 In addition to guarantees required elsewhere, Contractor shall, and hereby does guarantee and warrant all Work furnished on the job against all defects for a period of **TWO (2)** years after the later of the following dates, unless a longer period is provided for in the Contract Documents:

14.1.2.1 The acceptance by the District, or its agent, of the Work, subject to these General Conditions, or

14.1.2.2 The date that commissioning for the Project, if any, was completed.

At the District's sole option, Contractor shall repair or replace any and all of that Work, together with any other Work that may be displaced in so doing, that may prove defective in workmanship and/or materials within a **TWO (2)** year period from date of completion as defined above, unless a longer period is provided for in the Contract Documents, without expense whatsoever to District. In the event of failure of Contractor and/or Surety to commence and pursue with diligence said replacements or repairs within ten (10) days after being notified in writing, Contractor and Surety hereby acknowledge and agree that District is authorized to proceed to have defects repaired and made good at expense of Contractor and/or Surety who hereby agree to pay costs and charges therefore immediately on demand.

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

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

14.1.5 Nothing herein shall limit any other rights or remedies available to District.

14.2 Indemnity and Defense

14.2.1 To the furthest extent permitted by California law, the Contractor shall indemnify, keep and hold harmless the District, the Architect, and the Construction Manager, their consultants and separate contractors, and their respective board members, officers, representatives, contractors, agents, and employees, in both individual and official capacities ("Indemnitees"), against all suits, claims, damages, losses, and expenses, including but not limited to attorney's fees, caused by, arising out of, resulting from, or incidental to, the performance of the Work under this Contract by the Contractor, its Subcontractors, vendors, or suppliers, except to the extent caused by the sole negligence, active negligence, or willful misconduct of the Indemnitees, and/or to any extent that would render these provisions void or unenforceable. This agreement and obligation of the Contractor shall not be construed to negate, abridge, or otherwise reduce any right or obligation of indemnity that would otherwise exist as to any party or person described herein. This indemnification, and hold harmless obligation includes any failure or alleged

failure by Contractor to comply with any provision of law, any failure or alleged failure to timely and properly fulfill all of its obligations under the Contract Documents in strict accordance with their terms, and without limitation, any failure or alleged failure of Contractor's obligations regarding any stop payment notice actions or liens, including Civil Wage and Penalty Assessments and/or Orders by the California Department of Industrial Relations.

14.2.2 Contractor shall also defend, at its own expense, Indemnitees with legal counsel reasonably acceptable to the District, against all suits, claims, allegations, damages, losses, and expenses, including but not limited attorneys' fees, caused by, arising out of, resulting from, or incidental to, the performance of the Work under this Contract by the Contractor, its Subcontractors, vendors, or suppliers, except to the extent caused by the sole negligence, active negligence, or willful misconduct of the Indemnitees, and/or to any extent that would render these provisions void or unenforceable. This obligation of defense is inclusive of fees and costs. This agreement and obligation of the Contractor shall not be construed to negate, abridge, or otherwise reduce any right or obligation of defense that would otherwise exist as to any party or person described herein. This defense obligation extends to any failure or alleged failure by Contractor to comply with any provision of law, any failure or alleged failure to timely and properly fulfill all of its obligations under the Contract Documents in strict accordance with their terms, and without limitation, any failure or alleged failure of Contractor's obligations regarding any stop payment notice actions or liens, including Civil Wage and Penalty Assessments and/or Orders by the California Department of Industrial Relations. The Contractor shall give prompt notice to the District in the event of any injury (including death), loss, or damage included herein. Without limitation of the provisions herein, if the Contractor's agreement to indemnify and hold harmless the Indemnitees or its agreement to defend Indemnitees as provided herein shall be determined to be void or unenforceable, in whole or in part, it is the intention of the parties that these circumstances shall not otherwise affect the validity or enforceability of the Contractor's agreement to indemnify, defend, and hold harmless the rest of the Indemnitees, as provided herein. Further, the Contractor shall be and remain fully liable on its agreements and obligations herein to the fullest extent permitted by law.

14.2.3 Pursuant to Public Contract Code section 9201, the District shall provide timely notification to Contractor of the receipt of any third-party claim relating to this Contract. The District shall be entitled to recover its reasonable costs incurred in providing said notification.

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

14.2.5 The District may retain so much of the moneys due the Contractor as shall be considered necessary, until disposition of any such suit, claims or actions for damages or until the District, Architect and Construction Manager have received written agreement from the Contractor that they will unconditionally defend the

District, Architect and Construction Manager, their officers, agents and employees, and pay any damages due by reason of settlement or judgment.

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

15. TIME

15.1 Notice to Proceed

15.1.1 District may issue a Notice to Proceed within ninety (90) days from the date of the Notice of Award. Once Contractor has received the Notice to Proceed, Contractor shall complete the Work within the period of time indicated in the Contract Documents.

15.1.2 In the event that the District desires to postpone issuing the Notice to Proceed beyond ninety (90) days from the date of the Notice of Award, it is expressly understood that with reasonable notice to the Contractor, the District may postpone issuing the Notice to Proceed. It is further expressly understood by Contractor that Contractor shall not be entitled to any claim of additional compensation as a result of the postponement of the issuance of the Notice to Proceed.

15.1.3 If the Contractor believes that a postponement of issuance of the Notice to Proceed will cause a hardship to Contractor, Contractor may terminate the Contract. Contractor's termination due to a postponement shall be by written notice to District within ten (10) days after receipt by Contractor of District's notice of postponement. It is further understood by Contractor that in the event that Contractor terminates the Contract as a result of postponement by the District, the District shall only be obligated to pay Contractor for the Work that Contractor had performed at the time of notification of postponement. Should Contractor terminate the Contract as a result of a notice of postponement, District shall have the authority to award the Contract to the next lowest responsive responsible bidder.

15.2 Computation of Time / Adverse Weather

15.2.1 The Contractor will only be allowed a time extension for Adverse Weather conditions if requested by Contractor in compliance with the time extension request procedures and only if all of the following conditions are met:

15.2.1.1 The weather conditions constitute Adverse Weather, as defined herein and further specified in the Special Conditions;

15.2.1.2 Contractor can verify that the Adverse Weather caused delays in excess of five (5) hours of the indicated labor required to complete the scheduled tasks of Work on the day affected by the Adverse Weather;

15.2.1.3 The Contractor's crew is dismissed as a result of the Adverse Weather;

15.2.1.4 Said delay adversely affects the critical path in the Construction Schedule; and

15.2.1.5 The number of days of delay for the month exceeds the following:

January	<u>2</u>	July	<u>0</u>
February	<u>3</u>	August	<u>0</u>
March	<u>1</u>	September	<u>0</u>
April	<u>1</u>	October	<u>1</u>
May	<u>0</u>	November	<u>1</u>
June	<u>0</u>	December	<u>1</u>

15.2.2 If the aforementioned conditions are met, a non-compensable day-for-day extension will only be allowed for those days in excess of those indicated in the Special Conditions.

15.2.3 The Contractor shall work seven (7) days per week, if necessary, irrespective of inclement weather, to maintain access and the Construction Schedule, and to protect the Work under construction from the effects of Adverse Weather, all at no further cost to the District.

15.2.4 The Contract Time has been determined with consideration given to the average climate weather conditions prevailing in the County in which the Project is located.

15.3 Hours of Work

15.3.1 Sufficient Forces

Contractor and Subcontractors shall continuously furnish sufficient and competent work forces with the required levels of familiarity with the Project and skill, training and experience to ensure the prosecution of the Work in accordance with the Construction Schedule.

15.3.2 Performance During Working Hours

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

15.3.3 No Work during State Testing

Contractor shall, at no additional cost to the District and at the District's request, coordinate its Work to not disturb District students including, without limitation, not performing any Work when students at the Site are taking State or Federally-required tests. The District or District's Representative will provide Contractor with a schedule of test dates concurrent with the District's issuance of the Notice to Proceed, or as soon as test dates are made available to the District.

15.4 Progress and Completion

15.4.1 Time of the Essence

Time limits stated in the Contract Documents are of the essence to the Contract. By executing the Agreement, the Contractor confirms that the Contract Time is a reasonable period for performing the Work.

15.4.2 No Commencement Without Insurance or Bonds

The Contractor shall not commence operations on the Project or elsewhere prior to the effective date of insurance and bonds. The date of commencement of the Work shall not be changed by the effective date of such insurance or bonds. If Contractor commences Work without insurance and bonds, all Work is performed at Contractor's peril and shall not be compensable until and unless Contractor secures bonds and insurance pursuant to the terms of the Contract Documents and subject to District claim for damages.

15.5 Schedule

Contractor shall provide to District, Construction Manager, and Architect a schedule in conformance with the Contract Documents and as required in the Notice to Proceed and the Contractor's Submittals and Schedules section of these General Conditions.

15.6 Expeditious Completion

The Contractor shall proceed expeditiously with adequate forces and shall achieve Completion within the Contract Time.

16. EXTENSIONS OF TIME – LIQUIDATED DAMAGES

16.1 Liquidated Damages

Contractor and District hereby agree that the exact amount of damages for failure to complete the Work within the time specified is extremely difficult or impossible to determine. If the Work is not completed within the time specified in the Contract Documents, it is understood that the District will suffer damage. It being impractical and unfeasible to determine the amount of actual damage, it is agreed the Contractor shall pay to District as fixed and liquidated damages, and not as a penalty, the amount set forth in the Agreement for each calendar day of delay in completion. Contractor and its Surety shall be liable for the amount thereof pursuant to Government Code section 53069.85.

16.2 Excusable Delay

16.2.1 Contractor shall not be charged for liquidated damages because of any delays in completion of Work which are not the fault of Contractor or its Subcontractors, including acts of God as defined in Public Contract Code section 7105, acts of enemy, epidemics, and quarantine restrictions. Contractor shall, within five (5) calendar days of beginning of any delay, notify District in writing of causes of delay including documentation and facts explaining the delay and the direct

correlation between the cause and effect. District shall review the facts and extent of any delay and shall grant extension(s) of time for completing Work when, in its judgment, the findings of fact justify an extension. Extension(s) of time shall apply only to that portion of Work affected by delay, and shall not apply to other portions of Work not so affected. An extension of time may only be granted if Contractor has timely submitted the Construction Schedule as required herein.

16.2.2 Contractor shall notify the District pursuant to the claims provisions in these General Conditions of any anticipated delay and its cause. Following submission of a claim, the District may determine whether the delay is to be considered avoidable or unavoidable, how long it continues, and to what extent the prosecution and completion of the Work might be delayed thereby.

16.2.3 In the event the Contractor requests an extension of Contract Time for unavoidable delay, such request shall be submitted in accordance with the provisions in the Contract Documents governing changes in Work. When requesting time, requests must be submitted with full justification and documentation. If the Contractor fails to submit justification, it waives its right to a time extension at a later date. Such justification must be based on the official Construction Schedule as updated at the time of occurrence of the delay or execution of Work related to any changes to the Scope of Work. Any claim for delay must include the following information as support, without limitation:

16.2.3.1 The duration of the activity relating to the changes in the Work and the resources (manpower, equipment, material, etc.) required to perform the activities within the stated duration.

16.2.3.2 Specific logical ties to the Contract Schedule for the proposed changes and/or delay showing the activity/activities in the Construction Schedule that are affected by the change and/or delay. In particular, Contractor must show an actual impact to the schedule, after making a good faith effort to mitigate the delay by rescheduling the work, by providing an analysis of the schedule ("Schedule Analysis"). Such Schedule Analysis shall describe in detail the cause and effect of the delay and the impact on the critical dates in the Project schedule. (A portion of any delay of seven (7) days or more must be provided.)

16.2.3.3 A recovery schedule must be submitted within twenty (20) calendar days of written notification to the District of causes of delay.

16.3 No Additional Compensation for Delays Within Contractor's Control

16.3.1 Contractor is aware that governmental agencies, including, without limitation, the Division of the State Architect, the Department of General Services, gas companies, electrical utility companies, water districts, and other agencies may have to approve Contractor-prepared drawings or approve a proposed installation. Accordingly, Contractor shall include in its bid, time for possible review of its drawings and for reasonable delays and damages that may be caused by such agencies. Thus, Contractor is not entitled to make a claim for damages or delays arising from the review of Contractor's drawings.

16.3.2 Contractor shall only be entitled to compensation for delay when all of the following conditions are met:

16.3.2.1 The District is responsible for the delay;

16.3.2.2 The delay is unreasonable under the circumstances involved;

16.3.2.3 The delay was not within the contemplation of the District and Contractor; and

16.3.2.4 Contractor timely complies with the claims procedure of the Contract Documents.

16.4 **Float or Slack in the Schedule**

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

17. **CHANGES IN THE WORK**

17.1 **No Changes Without Authorization**

17.1.1 There shall be no change whatsoever in the Drawings, Specifications, or in the Work without an executed Change Order or a written Construction Change Directive authorized by the District as herein provided. District shall not be liable for the cost of any extra work or any substitutions, changes, additions, omissions, or deviations from the Drawings and Specifications unless the District's governing board has authorized the same and the cost thereof has been approved in writing by Change Order or Construction Change Directive in advance of the changed Work being performed. No extension of time for performance of the Work shall be allowed hereunder unless claim for such extension is made at the time changes in the Work are ordered, and such time duly adjusted in writing in the Change Order or Construction Change Directive. Contractor shall be responsible for any costs incurred by the District for professional services and DSA fees and/or delay to the Project Schedule, if any, for DSA to review any request for changes to the DSA approved plans and specifications for the convenience of the Contractor and/or to accommodate the Contractor's means and methods. The provisions of the Contract Documents shall apply to all such changes, additions, and omissions with the same effect as if originally embodied in the Drawings and Specifications.

17.1.2 Contractor shall perform immediately all work that has been authorized by a fully executed Change Order or Construction Change Directive. Contractor shall be fully responsible for any and all delays and/or expenses caused by Contractor's failure to expeditiously perform this Work.

17.1.3 Should any Change Order result in an increase in the Contract Price or extend the Contract Time, the cost of or length of extension in that Change Order shall be agreed to, in writing, by the District in advance of the Work by Contractor, and shall be subject to the monetary limitations set forth in Public Contract Code

section 20118.4. In the event that Contractor proceeds with any change in Work without a Change Order executed by the District or Construction Change Directive, Contractor waives any claim of additional compensation or time for that additional work. Under no circumstances shall Contractor be entitled to any claim of additional compensation or time not expressly requested by Contractor in a Proposed Change Order or approved by District in an executed Change Order.

17.1.4 Contractor understands, acknowledges, and agrees that the reason for District authorization is so that District may have an opportunity to analyze the Work and decide whether the District shall proceed with the Change Order or alter the Project so that a change in Work becomes unnecessary.

17.2 Architect Authority

The Architect will have authority to order minor changes in the Work not involving any adjustment in the Contract Price, or an extension of the Contract Time, or a change that is inconsistent with the intent of the Contract Documents. These changes shall be effected by written Change Order, Construction Change Directive, by Architect's response(s) to RFI(s), or by Architect's Supplemental Instructions ("ASI").

17.3 Change Orders

17.3.1 A Change Order is a written instrument prepared and issued by the District and/or the Architect and signed by the District (as authorized by the District's Board of Trustees), the Contractor, the Architect, and approved by the Project Inspector (if necessary) and DSA (if necessary), stating their agreement regarding all of the following:

17.3.1.1 A description of a change in the Work;

17.3.1.2 The amount of the adjustment in the Contract Price, if any; and

17.3.1.3 The extent of the adjustment in the Contract Time, if any.

17.4 Construction Change Directives

17.4.1 A Construction Change Directive is a written order prepared and issued by the District, the Construction Manager, and/or the Architect and signed by the District and the Architect, directing a change in the Work. The District may, as provided by law, by Construction Change Directive and without invalidating the Contract, order changes in the Work consisting of additions, deletions, or other revisions. The adjustment to the Contract Price or Time, if any, is subject to the provisions of this section regarding Changes in the Work. If all or a portion of the Project is being funded by funds requiring approval by the State Allocation Board ("SAB"), these revisions may be subject to compensation once approval of same is received and funded by the SAB, and funds are released by the Office of Public School Construction ("OPSC"). Any dispute as to the adjustment in the Contract Price, if any, of the Construction Change Directive or timing of payment shall be resolved pursuant to the Payment and Claims and Disputes provisions herein.

17.4.2 The District may issue a Construction Change Directive in the absence of agreement on the terms of a Change Order.

17.5 Force Account Directives

17.5.1 When work, for which a definite price has not been agreed upon in advance, is to be paid for on a force account basis, all direct costs necessarily incurred and paid by the Contractor for labor, material, and equipment used in the performance of that Work, shall be subject to the approval of the District and compensation will be determined as set forth herein.

17.5.2 The District will issue a Force Account Directive to proceed with the Work on a force account basis, and a not-to-exceed budget will be established by the District.

17.5.3 All requirements regarding direct cost for labor, labor burden, material, equipment, and markups on direct costs for overhead and profit described in this section shall apply to Force Account Directives. However, the District will only pay for actual costs verified in the field by the District or its authorized representative(s) on a daily basis.

17.5.4 The Contractor shall be responsible for all cost related to the administration of Force Account Directive. The markup for overhead and profit for Contractor modifications shall be full compensation to the Contractor to administer Force Account Directive, and Contractor shall not be entitled to separately recover additional amounts for overhead and/or profit.

17.5.5 The Contractor shall notify the District or its authorized representative(s) at least twenty-four (24) hours prior to proceeding with any of the force account work. Furthermore, the Contractor shall notify the District when it has consumed eighty percent (80%) of the budget, and shall not exceed the budget unless specifically authorized in writing by the District. The Contractor will not be compensated for force account work in the event that the Contractor fails to timely notify the District regarding the commencement of force account work, or exceeding the force account budget.

17.5.6 The Contractor shall diligently proceed with the work, and on a daily basis, submit a daily force account report on a form supplied by the District no later than 5:00 p.m. each day. The report shall contain a detailed itemization of the daily labor, material, and equipment used on the force account work only. The names of the individuals performing the force account work shall be included on the daily force account reports. The type and model of equipment shall be identified and listed. The District will review the information contained in the reports, and sign the reports no later than the next work day, and return a copy of the report to the Contractor for their records. The District will not sign, nor will the Contractor receive compensation for work the District cannot verify. The Contractor will provide a weekly force account summary indicating the status of each Force Account Directive in terms of percent complete of the not-to-exceed budget and the estimated percent complete of the work.

17.5.7 In the event the Contractor and the District reach a written agreement on a set cost for the work while the work is proceeding based on a Force Account Directive, the Contractor's signed daily force account reports shall be discontinued and all previously signed reports shall be invalid.

17.6 Price Request

17.6.1 Definition of Price Request

A Price Request ("PR") is a written request prepared by the Architect requesting the Contractor to submit to the District and the Architect an estimate of the effect of a proposed change in the Work on the Contract Price and the Contract Time.

17.6.2 Scope of Price Request

A Price Request shall contain adequate information, including any necessary Drawings and Specifications, to enable Contractor to provide the cost breakdowns required herein. The Contractor shall not be entitled to any additional compensation for preparing a response to a Price Request, whether ultimately accepted or not.

17.7 Proposed Change Order

17.7.1 Definition of Proposed Change Order

A Proposed Change Order ("PCO") is a written request prepared by the Contractor requesting that the District and the Architect issue a Change Order based upon a proposed change to the Work.

17.7.2 Changes in Contract Price

A PCO shall include breakdowns and backup documentation pursuant to the revisions herein and sufficient, in the District's judgment, to validate any change in Contract Price. In no case shall Contractor or any of its Subcontractors be permitted to reserve rights for additional compensation for Change Order Work.

17.7.3 Changes in Time

A PCO shall also include any changes in time required to complete the Project. Any additional time requested shall not be the number of days to make the proposed change, but must be based upon the impact to the Construction Schedule as defined in the Contract Documents. If Contractor fails to request a time extension in a PCO, then the Contractor is thereafter precluded from requesting, and waives any right to request, additional time and/or claim a delay. In no case shall Contractor or any of its Subcontractors be permitted to reserve rights for additional time for Change Order Work. A PCO that leaves the amount of time requested blank, or states that such time requested is "to be determined", is not permitted and shall also constitute a waiver of any right to request additional time and/or claim a delay.

17.7.4 Unknown and/or Unforeseen Conditions

If Contractor submits a PCO requesting an increase in Contract Price and/or Contract Time that is based at least partially on Contractor's assertion that Contractor has encountered unknown and/or unforeseen condition(s) on the Project, then Contractor shall base the PCO on provable information that, beyond a reasonable doubt and to the District's satisfaction, demonstrates that the unknown and/or unforeseen condition(s) were actually unknown and/or unforeseen and that the condition(s) were reasonably unknown and/or unforeseen. If not, the District shall deny the PCO as unsubstantiated, and the Contractor shall complete the Project without any increase in Contract Price and/or Contract Time based on that PCO.

17.7.5 Proposed Change Order Certification

In submitting a PCO, Contractor certifies and affirms that the cost and/or time request is submitted in good faith, that the cost and/or time request is accurate and in accordance with the provisions of the Contract Documents, and the Contractor submits the cost and/or request for extension of time recognizing the significant civil penalties and treble damages which follow from making a false claim or presenting a false claim under Government Code section 12650 *et seq.*

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17.8 Format for Proposed Change Order

17.8.1 The following format shall be used as applicable by the District and the Contractor (e.g. Change Orders, PCO's) to communicate proposed additions and deductions to the Contract, supported by attached documentation. Any spaces left blank will be deemed no change to cost or time.

	<u>WORK PERFORMED OTHER THAN BY CONTRACTOR</u>	<u>ADD</u>	<u>DEDUCT</u>
(a)	<u>Material</u> (attach suppliers' invoice or itemized quantity and unit cost plus sales tax)		
(b)	<u>Add Labor</u> (attach itemized hours and rates, fully encumbered)		
(c)	<u>Add Equipment</u> (attach suppliers' invoice)		
(d)	<u>Subtotal</u>		
(e)	<u>Add overhead and profit for any and all tiers of Subcontractor</u> , the total not to exceed ten percent (10%) of Item (d)		
(f)	<u>Subtotal</u>		
(g)	<u>Add Overhead and Profit for Contractor</u> , not to exceed five percent (5%) of Item (f)		
(h)	<u>Subtotal</u>		
(i)	<u>Add Bond and Insurance</u> , not to exceed one and a half percent (1.5%) of Item (h)		
(j)	<u>TOTAL</u>		
(k)	<u>Time</u> (zero unless indicated; "TBD" not permitted)	____ Calendar Days	

	<u>WORK PERFORMED BY CONTRACTOR</u>	<u>ADD</u>	<u>DEDUCT</u>
(a)	<u>Material</u> (attach itemized quantity and unit cost plus sales tax)		
(b)	<u>Add Labor</u> (attach itemized hours and rates, fully encumbered)		
(c)	<u>Add Equipment</u> (attach suppliers' invoice)		
(d)	<u>Subtotal</u>		
(e)	<u>Add Overhead and Profit for Contractor</u> , not to exceed fifteen percent (15%) of Item (d)		
(f)	<u>Subtotal</u>		
(g)	<u>Add Bond and Insurance</u> , not to exceed one and a half percent (1.5%) of Item (f)		
(h)	<u>TOTAL</u>		
(i)	<u>Time</u> (zero unless indicated; "TBD" not permitted)	____ Calendar Days	

17.8.2 Labor. Contractor shall be compensated for the costs of labor actually and directly utilized in the performance of the Work. Such labor costs shall be limited to field labor for which there is a prevailing wage rate classification. Wage rates for labor shall not exceed the prevailing wage rates in the locality of the Site

and shall be in the labor classification(s) necessary for the performance of the Work. Labor costs shall exclude costs incurred by the Contractor in preparing estimate(s) of the costs of the change in the Work, in the maintenance of records relating to the costs of the change in the Work, coordination and assembly of materials and information relating to the change in the Work or performance thereof, or the supervision and other overhead and general conditions costs associated with the change in the Work or performance thereof, including but not limited to the cost for the job superintendent.

17.8.3 Materials. Contractor shall be compensated for the costs of materials necessarily and actually used or consumed in connection with the performance of the change in the Work. Costs of materials may include reasonable costs of transportation from a source closest to the Site of the Work and delivery to the Site. If discounts by material suppliers are available for materials necessarily used in the performance of the change in the Work, they shall be credited to the District. If materials necessarily used in the performance of the change in the Work are obtained from a supplier or source owned in whole or in part by the Contractor, compensation therefor shall not exceed the current wholesale price for such materials. If, in the reasonable opinion of the District, the costs asserted by the Contractor for materials in connection with any change in the Work are excessive, or if the Contractor fails to provide satisfactory evidence of the actual costs of such materials from its supplier or vendor of the same, the costs of such materials and the District's obligation to pay for the same shall be limited to the then lowest wholesale price at which similar materials are available in the quantities required to perform the change in the Work. The District may elect to furnish materials for the change in the Work, in which event the Contractor shall not be compensated for the costs of furnishing such materials or any mark-up thereon.

17.8.4 Equipment. As a precondition for the District's duty to pay for Equipment rental or loading and transportation, Contractor shall provide satisfactory evidence of the actual costs of Equipment from the supplier, vendor or rental agency of same. Contractor shall be compensated for the actual cost of the necessary and direct use of Equipment in the performance of the change in the Work. Use of such Equipment in the performance of the change in the Work shall be compensated in increments of fifteen (15) minutes. Rental time for Equipment moved by its own power shall include time required to move such Equipment to the site of the Work from the nearest available rental source of the same. If Equipment is not moved to the Site by its own power, Contractor will be compensated for the loading and transportation costs in lieu of rental time. The foregoing notwithstanding, neither moving time or loading and transportation time shall be allowed if the Equipment is used for performance of any portion of the Work other than the change in the Work. Unless prior approval in writing is obtained by the Contractor from the Architect, the Project Inspector and the District, no costs or compensation shall be allowed for time while Construction Equipment is inoperative, idle or on standby, for any reason. Contractor shall not be entitled to an allowance or any other compensation for Equipment or tools used in the performance of change in the Work where such Equipment or tools have a replacement value of \$500.00 or less. Equipment costs claimed by the Contractor in connection with the performance of any Work shall not exceed rental rates established by distributors or construction equipment rental agencies in the locality of the Site; any costs asserted which exceed such rental rates shall not be allowed or paid. Unless otherwise specifically approved in writing by the

Architect, the Project Inspector and the District, the allowable rate for the use of Equipment in connection with the Work shall constitute full compensation to the Contractor for the cost of rental, fuel, power, oil, lubrication, supplies, necessary attachments, repairs or maintenance of any kind, depreciation, storage, insurance, labor (exclusive of labor costs of the Equipment operator), and any and all other costs incurred by the Contractor incidental to the use of such Equipment.

17.8.5 Overhead and Profit. The phrase "Overhead and Profit" shall include field and office supervisors and assistants, watchperson, use of small tools, consumable, insurance other than construction bonds and insurance required herein, and general field and home office expenses.

17.9 Change Order Certification

17.9.1 All Change Orders and PCOs must include the following certification by the Contractor:

17.9.1.1 The undersigned Contractor approves the foregoing as to the changes, if any, to the Contract Price specified for each item, and as to the extension of time allowed, if any, for completion of the entire Work as stated herein, and agrees to furnish all labor, materials, and service, and perform all work necessary to complete any additional work specified for the consideration stated herein. Submission of sums which have no basis in fact or which Contractor knows are false are at the sole risk of Contractor and may be a violation of the False Claims Act set forth under Government Code section 12650 *et seq.* It is understood that the changes herein to the Contract shall only be effective when approved by the governing board of the District.

17.9.1.2 It is expressly understood that the value of the extra Work or changes expressly includes any and all of the Contractor's costs and expenses, direct and indirect, resulting from additional time required on the Project or resulting from delay to the Project. Contractor is not entitled to separately recover amounts for overhead or other indirect costs. Any costs, expenses, damages, or time extensions not included are deemed waived.

17.10 Determination of Change Order Cost

17.10.1 The amount of the increase or decrease in the Contract Price from a Change Order, if any, shall be determined in one or more of the following ways as applicable to a specific situation and at the District's discretion:

17.10.1.1 District acceptance of a PCO;

17.10.1.2 By unit prices contained in Contractor's original bid;

17.10.1.3 By agreement between District and Contractor.

17.11 Deductive Change Orders

All deductive Change Order(s) must be prepared pursuant to the provisions herein. Where a portion of the Work is deleted from the Contract, the reasonable value of the

deducted work less the value of work performed shall be considered the appropriate deduction. The value submitted on the Schedule of Values shall be used to calculate the credit amount unless the bid documentation is being held in escrow as part of the Contract Documents. Unit Prices, if any, may be used in District's discretion in calculating reasonable value. If Contractor offers a proposed amount for a deductive Change Order(s), Contractor shall include a minimum of five percent (5%) total profit and overhead to be deducted with the amount of the work of the Change Order(s). If Subcontractor work is involved, Subcontractors shall also include a minimum of five percent (5%) profit and overhead to be deducted with the amount of its deducted work. Any deviation from this provision shall not be allowed.

17.12 Addition or Deletion of Alternate Bid Item(s)

If the Bid Form and Proposal includes proposal(s) for Alternate Bid Item(s), during Contractor's performance of the Work, the District may elect to add or delete any such Alternate Bid Item(s) if not included in the Contract at the time of award. If the District elects to add or delete Alternate Bid Item(s) after Contract award, the cost or credit for such Alternate Bid Item(s) shall be as set forth in the Bid Form and Proposal unless the parties agree to a different price and the Contract Time shall be adjusted by the number of days allocated in the Contract Documents. If days are not allocated in the Contract Documents, the Contract Time shall be equitably adjusted.

17.13 Discounts, Rebates, and Refunds

For purposes of determining the cost, if any, of any change, addition, or omission to the Work hereunder, all trade discounts, rebates, refunds, and all returns from the sale of surplus materials and equipment shall accrue and be credited to the Contractor, and the Contractor shall make provisions so that such discounts, rebates, refunds, and returns may be secured, and the amount thereof shall be allowed as a reduction of the Contractor's cost in determining the actual cost of construction for purposes of any change, addition, or omission in the Work as provided herein.

17.14 Accounting Records

With respect to portions of the Work performed by Change Orders and Construction Change Directives, the Contractor shall keep and maintain cost-accounting records satisfactory to the District, including, without limitation, Job Cost Reports as provided in these General Conditions, which shall be available to the District on the same terms as any other books and records the Contractor is required to maintain under the Contract Documents. Such records shall include without limitation hourly records for Labor and Equipment and itemized records of materials and Equipment used that day in connection with the performance of any Work. All records maintained hereunder shall be subject to inspection, review and/or reproduction by the District, the Architect or the Project Inspector upon request. In the event that the Contractor fails or refuses, for any reason, to maintain or make available for inspection, review and/or reproduction such records, the District's reasonable good faith determination of the extent of adjustment to the Contract Price shall be final, conclusive, dispositive and binding upon Contractor.

17.15 Notice Required

If the Contractor desires to make a claim for an increase in the Contract Price, or any extension in the Contract Time for completion, it shall notify the District pursuant to the provisions herein, including the Article on Claims and Disputes. No claim shall be considered unless made in accordance with this subparagraph. Contractor shall proceed to execute the Work even though the adjustment may not have been agreed upon. Any change in the Contract Price or extension of the Contract Time resulting from such claim shall be authorized by a Change Order.

17.16 Applicability to Subcontractors

Any requirements under this Article shall be equally applicable to Change Orders or Construction Change Directives issued to Subcontractors by the Contractor to the extent as required by the Contract Documents.

17.17 Alteration to Change Order Language

Contractor shall not alter Change Orders or reserve time in Change Orders. Change Orders altered in violation of this provision, if in conflict with the terms set forth herein, shall be construed in accordance with the terms set forth herein. Contractor shall execute finalized Change Orders and proceed under the provisions herein with proper notice.

17.18 Failure of Contractor to Execute Change Order

Contractor shall be in default of the Contract if Contractor fails to execute a Change Order when the Contractor agrees with the addition and/or deletion of the Work in that Change Order.

18. REQUEST FOR INFORMATION

18.1 Any Request for Information shall reference all applicable Contract Document(s), including Specification section(s), detail(s), page number(s), drawing number(s), and sheet number(s), etc. The Contractor shall make suggestions and interpretations of the issue raised by each Request for Information. A Request for Information cannot modify the Contract Price, Contract Time, or the Contract Documents. Upon request by the District, Contractor shall provide an electronic copy of the Request for Information in addition to the hard copy.

18.2 The Contractor shall be responsible for any costs incurred for professional services that District may deduct from any amounts owing to the Contractor, if a Request for Information requests an interpretation or decision of a matter where the information sought is equally available to the party making the request. District, at its

sole discretion, shall deduct from and/or invoice Contractor for all the professional services arising herein.

19. PAYMENTS

19.1 Contract Price

The Contract Price is stated in the Agreement and, including authorized adjustments, is the total amount payable by the District to the Contractor for performance of the Work under the Contract Documents.

19.2 Applications for Progress Payments

19.2.1 Procedure for Applications for Progress Payments

19.2.1.1 Application for Progress Payment

19.2.1.1.1 Not before the fifth (5th) day of each calendar month during the progress of the Work, Contractor shall submit to the District and the Architect an itemized Application for Payment for operations completed in accordance with the Schedule of Values. Such application shall be notarized, if required, and supported by the following or each portion thereof unless waived by the District in writing:

19.2.1.1.1.1 The amount paid to the date of the Application to the Contractor, to all its Subcontractors, and all others furnishing labor, material, or equipment for its Contract;

19.2.1.1.1.2 The amount being requested under the Application for Payment by the Contractor on its own behalf and separately stating the amount requested on behalf of each of the Subcontractors and all others furnishing labor, material, and equipment under the Contract;

19.2.1.1.1.3 The balance that will be due to each of such entities after said payment is made;

19.2.1.1.1.4 A certification that the As-Built Drawings and annotated Specifications are current;

19.2.1.1.1.5 Itemized breakdown of work done for the purpose of requesting partial payment;

19.2.1.1.1.6 An updated and acceptable construction schedule in conformance with the provisions herein;

19.2.1.1.1.7 The additions to and subtractions from the Contract Price and Contract Time;

19.2.1.1.1.8 A total of the retentions held;

19.2.1.1.1.9 Material invoices, evidence of equipment purchases, rentals, and other support and details of cost as the District may require from time to time;

19.2.1.1.1.10 The percentage of completion of the Contractor's Work by line item;

19.2.1.1.1.11 Schedule of Values updated from the preceding Application for Payment;

19.2.1.1.1.12 A duly completed and executed conditional waiver and release upon progress payment compliant with Civil Code section 8132 from the Contractor and each subcontractor of any tier and supplier to be paid from the current progress payment;

19.2.1.1.1.13 A duly completed and executed unconditional waiver and release upon progress payment compliant with Civil Code section 8134 from the Contractor and each subcontractor of any tier and supplier that was paid from the previous progress payment(s); and

19.2.1.1.1.14 A certification by the Contractor of the following:

The Contractor warrants title to all Work performed as of the date of this payment application has been completed in accordance with the Contract Documents for the Project. The Contractor further warrants that all amounts have been paid for work which previous Certificates for Payment were issued and payments received and all Work performed as of the date of this payment application is free and clear of liens, claims, security interests, or encumbrances in favor of the Contractor, Subcontractors, material and equipment suppliers, workers, or other persons or entities making a claim by reason of having provided labor, materials, and equipment relating to the Work, except those of which the District has been informed. Submission of sums which have no basis in fact or which Contractor knows are false are at the sole risk of Contractor and may be a violation of the False Claims Act set forth under Government Code section 12650 *et seq.*

19.2.1.1.1.15 The Contractor shall be subject to the False Claims Act set forth in Government Code section 12650 *et seq.* for information provided with any Application for Progress Payment.

19.2.1.1.1.16 All remaining certified payroll records ("CPR(s)") for each journeyman, apprentice, worker, or other employee employed by the Contractor and/or each Subcontractor in connection with the Work for the period of the Application for Payment. As indicated herein, the District shall not make any payment to Contractor until:

19.2.1.1.1.16.1 Contractor and/or its Subcontractor(s) provide electronic CPRs weekly for all weeks any journeyman, apprentice, worker or other employee was employed in connection with the Work

directly to the DIR, or within ten (10) days of any request by the District or the DIR, and

19.2.1.1.1.16.2 Any delay in Contractor and/or its Subcontractor(s) providing CPRs in a timely manner may directly delay the Contractor's payment.

19.2.1.1.2 Applications received after June 20th will not be paid until the second week of July and applications received after December 12th will not be paid until the first week of January.

19.2.2 Prerequisites for Progress Payments

19.2.2.1 First Payment Request: The following items, if applicable, must be completed before the District will accept and/or process the Contractor's first payment request:

19.2.2.1.1 Installation of the Project sign;

19.2.2.1.2 Installation of field office;

19.2.2.1.3 Installation of temporary facilities and fencing;

19.2.2.1.4 Schedule of Values;

19.2.2.1.5 Contractor's Construction Schedule;

19.2.2.1.6 Schedule of unit prices, if applicable;

19.2.2.1.7 Submittal Schedule;

19.2.2.1.8 Receipt by Architect of all submittals due as of the date of the payment application;

19.2.2.1.9 Copies of necessary permits;

19.2.2.1.10 Copies of authorizations and licenses from governing authorities;

19.2.2.1.11 Initial progress report;

19.2.2.1.12 Surveyor qualifications;

19.2.2.1.13 Written acceptance of District's survey of rough grading, if applicable;

19.2.2.1.14 List of all Subcontractors, with names, license numbers, telephone numbers, and Scope of Work;

19.2.2.1.15 All bonds and insurance endorsements; and

19.2.2.1.16 Resumes of Contractor's project manager, and if applicable, job site secretary, record documents recorder, and job site superintendent.

19.2.2.2 Second Payment Request: The District will not process the second payment request until and unless all submittals and Shop Drawings have been accepted for review by the Architect.

19.2.2.3 No Waiver of Criteria: Any payments made to Contractor where criteria set forth herein have not been met shall not constitute a waiver of said criteria by District. Instead, such payment shall be construed as a good faith effort by District to resolve differences so Contractor may pay its Subcontractors and suppliers. Contractor agrees that failure to submit such items may constitute a breach of contract by Contractor and may subject Contractor to termination.

19.3 Progress Payments

19.3.1 District's Approval of Application for Payment

19.3.1.1 Upon receipt of an Application for Payment, The District shall act in accordance with both of the following:

19.3.1.1.1 Each Application for Payment shall be reviewed by the District as soon as practicable after receipt for the purpose of determining that the Application for Payment is a proper Application for Payment.

19.3.1.1.2 Any Application for Payment determined not to be a proper Application for Payment suitable for payment shall be returned to the Contractor as soon as practicable, but not later than seven (7) days, after receipt. An Application for Payment returned pursuant to this paragraph shall be accompanied by a document setting forth in writing the reasons why the Application for Payment is not proper. The number of days available to the District to make a payment without incurring interest pursuant to this section shall be reduced by the number of days by which the District exceeds this seven-day return requirement.

19.3.1.1.3 An Application for Payment shall be considered properly executed if funds are available for payment of the Application for Payment, and payment is not delayed due to an audit inquiry by the financial officer of the District.

19.3.1.2 The District's review of the Contractor's Application for Payment will be based on the District's and the Architect's observations at the Site and the data comprising the Application for Payment that the Work has progressed to the point indicated and that, to the best of the District's and the Architect's knowledge, information, and belief, the quality of the Work is in accordance with the Contract Documents. The foregoing representations are subject to:

19.3.1.2.1 Observation of the Work for general conformance with the Contract Documents,

19.3.1.2.2 Results of subsequent tests and inspections,

19.3.1.2.3 Minor deviations from the Contract Documents correctable prior to completion, and

19.3.1.2.4 Specific qualifications expressed by the Architect.

19.3.1.3 District's approval of the certified Application for Payment shall be based on Contractor complying with all requirements for a fully complete and valid certified Application for Payment.

19.3.2 Payments to Contractor

19.3.2.1 Within thirty (30) days after approval of the Application for Payment, Contractor shall be paid a sum equal to ninety-five percent (95%) of the value of the Work performed (as verified by Architect and Inspector and certified by Contractor) up to the last day of the previous month, less the aggregate of previous payments and amount to be withheld. The value of the Work completed shall be Contractor's best estimate. No inaccuracy or error in said estimate shall operate to release the Contractor, or any Surety upon any bond, from damages arising from such Work, or from the District's right to enforce each and every provision of this Contract, and the District shall have the right subsequently to correct any error made in any estimate for payment.

19.3.2.2 The Contractor shall not be entitled to have any payment requests processed, or be entitled to have any payment made for Work performed, so long as any lawful or proper direction given by the District concerning the Work, or any portion thereof, remains incomplete.

19.3.2.3 If the District fails to make any progress payment within thirty (30) days after receipt of an undisputed and properly submitted Application for Payment from the Contractor, the District shall pay interest to the Contractor equivalent to the legal rate set forth in subdivision (a) of Section 685.010 of the Code of Civil Procedure.

19.3.3 No Waiver

No payment by District hereunder shall be interpreted so as to imply that District has inspected, approved, or accepted any part of the Work. Notwithstanding any payment, the District may enforce each and every provision of this Contract. The District may correct or require correction of any error subsequent to any payment.

19.4 Decisions to Withhold Payment

19.4.1 Reasons to Withhold Payment

The District may withhold payment in whole, or in part, to the extent reasonably necessary to protect the District if, in the District's opinion, the representations to the District required herein cannot be made. The District may withhold payment, in whole, or in part, to such extent as may be necessary to protect the District from loss because of, but not limited to any of the following:

19.4.1.1 Defective Work not remedied within **FORTY-EIGHT (48)** hours of written notice to Contractor.

19.4.1.2 Stop Payment Notices or other liens served upon the District as a result of the Contract. Contractor agrees that the District may withhold up to 125% of the amount claimed in the Stop Payment Notice to answer the claim and to provide for the District's reasonable cost of any litigation pursuant to the stop payment notice.

19.4.1.3 Liquidated damages assessed against the Contractor.

19.4.1.4 The cost of completion of the Contract if there exists a reasonable doubt that the Work can be completed for the unpaid balance of the Contract Price or by the completion date.

19.4.1.5 Damage to the District or other contractor(s).

19.4.1.6 Unsatisfactory prosecution of the Work by the Contractor.

19.4.1.7 Failure to store and properly secure materials.

19.4.1.8 Failure of the Contractor to submit, on a timely basis, proper, sufficient, and acceptable documentation required by the Contract Documents, including, without limitation, a Construction Schedule, Schedule of Submittals, Schedule of Values, Monthly Progress Schedules, Shop Drawings, Product Data and samples, Proposed product lists, executed Change Orders, and/or verified reports.

19.4.1.9 Failure of the Contractor to maintain As-Built Drawings.

19.4.1.10 Erroneous estimates by the Contractor of the value of the Work performed, or other false statements in an Application for Payment.

19.4.1.11 Unauthorized deviations from the Contract Documents.

19.4.1.12 Failure of the Contractor to prosecute the Work in a timely manner in compliance with the Construction Schedule, established progress schedules, and/or completion dates.

19.4.1.13 Failure to provide acceptable electronic certified payroll records, as required by the Labor Code, by these Contract Documents, or by written request; for each journeyman, apprentice, worker, or other employee employed by the Contractor and/or by each Subcontractor in connection with the Work for the period of the Application for Payment or if payroll records are delinquent or inadequate.

19.4.1.14 Failure to properly pay prevailing wages as required in Labor Code section 1720 *et seq.*, failure to comply with any other Labor Code requirements, and/or failure to comply with labor compliance monitoring and enforcement by the DIR.

19.4.1.15 Failure to comply with any applicable federal statutes and regulations regarding minimum wages, withholding, payrolls and basic records, apprentice and trainee employment requirements, equal employment opportunity requirements, Copeland Act requirements, Davis-Bacon Act and related requirements, Contract Work Hours and Safety Standards Act requirements, if applicable.

19.4.1.16 Failure to properly maintain or clean up the Site.

19.4.1.17 Failure to timely indemnify, defend, or hold harmless the District.

19.4.1.18 Any payments due to the District, including but not limited to payments for failed tests, utilities changes, or permits.

19.4.1.19 Failure to pay Subcontractor(s) or supplier(s) as required by law and by the Contract Documents.

19.4.1.20 Failure to pay any royalty, license or similar fees.

19.4.1.21 Contractor is otherwise in breach, default, or in substantial violation of any provision of this Contract.

19.4.1.22 Failure to perform any implementation and/or monitoring required by any SWPPP for the Project and/or the imposition of any penalties or fines therefore whether imposed on the District or Contractor.

19.4.2 Reallocation of Withheld Amounts

19.4.2.1 District may, in its discretion, apply any withheld amount to pay outstanding claims or obligations as defined herein. In so doing, District shall make such payments on behalf of Contractor. If any payment is so made by District, then that amount shall be considered a payment made under Contract by District to Contractor and District shall not be liable to Contractor for any payment made in good faith. These payments may be made without prior judicial determination of claim or obligation. District will render Contractor an accounting of funds disbursed on behalf of Contractor.

19.4.2.2 If Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents or fails to perform any provision thereof, District may, after **FORTY-EIGHT (48)** hours' written notice to the Contractor and, without prejudice to any other remedy, make good such deficiencies. The District shall adjust the total Contract Price by reducing the amount thereof by the cost of making good such deficiencies. If District deems it inexpedient to correct Work that is damaged, defective, or not done in accordance with Contract provisions, an equitable reduction in the Contract Price (of at least one hundred fifty percent (150%) of the estimated reasonable value of the nonconforming Work) shall be made therefor.

19.4.3 Payment After Cure

When Contractor removes the grounds for declining approval, payment shall be made for amounts withheld because of them. No interest shall be paid on any retainage or amounts withheld due to the failure of the Contractor to perform in accordance with the terms and conditions of the Contract Documents.

19.5 Subcontractor Payments

19.5.1 Payments to Subcontractors

No later than seven (7) days after receipt, or pursuant to Business and Professions Code section 7108.5 and Public Contract Code section 7107, the Contractor shall pay to each Subcontractor, out of the amount paid to the Contractor on account of such Subcontractor's portion of the Work, the amount to which said Subcontractor is entitled. The Contractor shall, by appropriate agreement with each Subcontractor, require each Subcontractor to make payments to its Sub-subcontractors in a similar manner.

19.5.2 No Obligation of District for Subcontractor Payment

The District shall have no obligation to pay, or to see to the payment of, money to a Subcontractor except as may otherwise be required by law.

19.5.3 Joint Checks

District shall have the right in its sole discretion, if necessary for the protection of the District, to issue joint checks made payable to the Contractor and Subcontractors and/or material or equipment suppliers. The joint check payees shall be responsible for the allocation and disbursement of funds included as part of any such joint payment. In no event shall any joint check payment be construed to create any contract between the District and a Subcontractor of any tier, or a material or equipment supplier, any obligation from the District to such Subcontractor or a material or equipment supplier, or rights in such Subcontractor or a material or equipment supplier against the District.

20. COMPLETION OF THE WORK

20.1 Completion

20.1.1 District will accept completion of Contract and have the Notice of Completion recorded when the entire Work shall have been completed to the satisfaction of District.

20.1.2 The Work may only be accepted as complete by action of the governing board of the District.

20.1.3 District, at its sole option, may accept completion of Contract and have the Notice of Completion recorded when the entire Work shall have been completed to the satisfaction of District, except for minor corrective items, as distinguished from incomplete items. If Contractor fails to complete all minor corrective items within fifteen (15) days after the date of the District's acceptance of completion, District shall withhold from the final payment one hundred fifty percent (150%) of an

estimate of the amount sufficient to complete the corrective items, as determined by District, until the item(s) are completed.

20.1.4 At the end of the 15-day period, if there are any items remaining to be corrected, District may elect to proceed as provided herein related to adjustments to Contract Price, and/or District's right to perform the Work of the Contractor.

20.2 Close-Out/Certification Procedures

20.2.1 Punch List

The Contractor shall notify the Architect when Contractor considers the Work complete. Upon notification, Architect will prepare a list of minor items to be completed or corrected ("Punch List"). The Contractor and/or its Subcontractors shall proceed promptly to complete and correct items on the Punch List. Failure to include an item on Punch List does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

20.2.2 Close-Out/Certification Requirements

20.2.2.1 Utility Connections

Buildings shall be connected to water, gas, sewer, and electric services, complete and ready for use. Service connections shall be made and existing services reconnected.

20.2.2.2 Record Drawings and Record Specifications

20.2.2.2.1 Contractor shall provide exact Record Drawings of the Work ("As-Builts") and Record Specifications upon completion of the Project and as a condition precedent to approval of final payment.

20.2.2.2.2 Contractor shall obtain the Inspector's approval of the corrected prints and employ a competent draftsman to transfer the Record Drawings information to the most current version of AutoCAD that is, at that time, currently utilized for plan check submission by either the District, the Architect, OPSC, and/or DSA, and print a complete set of transparent sepias. When completed, Contractor shall deliver corrected sepias and diskette/CD/other data storage device acceptable to District with AutoCAD file to the District.

20.2.2.2.3 Contractor is liable and responsible for any and all inaccuracies in the Record Drawings and Record Specifications, even if inaccuracies become evident at a future date.

20.2.2.3 Maintenance Manuals: Contractor shall prepare all operation and maintenance manuals and date as indicated in the Specifications.

20.2.2.4 Source Programming: Contractor shall provide all source programming for all items in the Project.

20.2.2.5 Verified Reports: Contractor shall completely and accurately fill out and file forms DSA 6-C or DSA 152 (or current form), as appropriate. Refer to section 4-336 and section 4-343 of Part 1, Title 24 of the California Code of Regulations.

20.3 Final Inspection

20.3.1 Contractor shall comply with Punch List procedures as provided herein, and maintain the presence of a Project Superintendent and Project Manager until the Punch List is complete to ensure proper and timely completion of the Punch List. Under no circumstances shall Contractor demobilize its forces prior to completion of the Punch List without District's prior written approval. Upon receipt of Contractor's written notice that all of the Punch List items have been fully completed and the Work is ready for final inspection and acceptance, Architect and Project Inspector will inspect the Work and shall submit to Contractor and District a final inspection report noting the Work, if any, required in order to complete in accordance with the Contract Documents. Absent unusual circumstances, this report shall consist of the Punch List items not yet satisfactorily completed.

20.3.2 Upon Contractor's completion of all items on the Punch List and any other uncompleted portions of the Work, the Contractor shall notify the District and Architect, who shall again inspect such Work. If the Architect finds the Work complete and acceptable under the Contract Documents, the Architect will notify Contractor, who shall then jointly submit to the Architect and the District its final Application for Payment.

20.3.3 Final Inspection Requirements

20.3.3.1 Before calling for final inspection, Contractor shall determine that the following have been performed:

- 20.3.3.1.1** The Work has been completed.
- 20.3.3.1.2** All life safety items are completed and in working order.
- 20.3.3.1.3** Mechanical and electrical Work are complete and tested, fixtures are in place, connected, and ready for tryout.
- 20.3.3.1.4** Electrical circuits scheduled in panels and disconnect switches labeled.
- 20.3.3.1.5** Painting and special finishes complete.
- 20.3.3.1.6** Doors complete with hardware, cleaned of protective film, relieved of sticking or binding, and in working order.
- 20.3.3.1.7** Tops and bottoms of doors sealed.
- 20.3.3.1.8** Floors waxed and polished as specified.
- 20.3.3.1.9** Broken glass replaced and glass cleaned.

20.3.3.1.10 Grounds cleared of Contractor's equipment, raked clean of debris, and trash removed from Site.

20.3.3.1.11 Work cleaned, free of stains, scratches, and other foreign matter, of damaged and broken material replaced.

20.3.3.1.12 Finished and decorative work shall have marks, dirt, and superfluous labels removed.

20.3.3.1.13 Final cleanup, as provided herein.

20.4 Costs of Multiple Inspections

More than two (2) requests of the District to make a final inspection shall be considered an additional service of District, Architect, Construction Manager, and/or Project Inspector, and all subsequent costs will be invoiced to Contractor and if funds are available, withheld from remaining payments.

20.5 Partial Occupancy or Use Prior to Completion

20.5.1 District's Rights to Occupancy

The District may occupy or use any completed or partially completed portion of the Work at any stage, and such occupancy shall not constitute the District's Final Acceptance of any part of the Work. Neither the District's Final Acceptance, the making of Final Payment, any provision in Contract Documents, nor the use or occupancy of the Work, in whole or in part, by District shall constitute acceptance of Work not in accordance with the Contract Documents nor relieve the Contractor or the Contractor's Performance Bond Surety from liability with respect to any warranties or responsibility for faulty or defective Work or materials, equipment and workmanship incorporated therein. In the event that the District occupies or uses any completed or partially completed portion of the Work, the Contractor shall remain responsible for payments, security, maintenance, heat, utilities, damage to the Work, insurance, the period for correction of the Work, and the commencement of warranties required by the Contract Documents unless the Contractor requests in writing, and the District agrees, to otherwise divide those responsibilities. Any dispute as to responsibilities shall be resolved pursuant to the Claims and Disputes provisions herein, with the added provision that during the dispute process, the District shall have the right to occupy or use any portion of the Work that it needs or desires to use.

20.5.2 Inspection Prior to Occupancy or Use

Immediately prior to partial occupancy or use, the District, the Contractor, and the Architect shall jointly inspect the area to be occupied or portion of the Work to be used in order to determine and record the condition of the Work.

20.5.3 No Waiver

Unless otherwise agreed upon, partial or entire occupancy or use of a portion or portions of the Work shall not constitute beneficial occupancy or acceptance of the Work not complying with the requirements of the Contract Documents.

21. FINAL PAYMENT AND RETENTION

21.1 Final Payment

Upon receipt and approval of a valid and final Application for Payment, the Architect will issue a final Certificate of Payment. The District shall thereupon jointly inspect the Work and either accept the Work as complete or notify the Architect and the Contractor in writing of reasons why the Work is not complete. Upon acceptance of the Work of the Contractor as fully complete by the Governing Board of the District (that, absent unusual circumstances, will occur when the Punch List items have been satisfactorily completed), the District shall record a Notice of Completion with the County Recorder, and the Contractor shall, upon receipt of final payment from the District, pay the amount due Subcontractors.

21.2 Prerequisites for Final Payment

The following conditions must be fulfilled prior to Final Payment:

21.2.1 A full release of all Stop Payment Notices served in connection with the Work shall be submitted by Contractor.

21.2.2 A duly completed and executed conditional waiver and release upon final payment compliant with Civil Code section 8136, from the Contractor and each subcontractor of any tier and supplier to be paid from the final payment.

21.2.3 A duly completed and executed unconditional waiver and release upon progress payment compliant with Civil Code section 8134, from the Contractor and each subcontractor of any tier and supplier that was paid from the previous progress payments.

21.2.4 A duly completed and executed Document 00 65 19.26, "AGREEMENT AND RELEASE OF ANY AND ALL CLAIMS" from the Contractor.

21.2.5 The Contractor shall have made all corrections to the Work that are required to remedy any defects therein, to obtain compliance with the Contract Documents or any requirements of applicable codes and ordinances, or to fulfill any of the orders or directions of District required under the Contract Documents.

21.2.6 Each Subcontractor shall have delivered to the Contractor all written guarantees, warranties, applications, and bonds required by the Contract Documents for its portion of the Work.

21.2.7 Contractor must have completed all requirements set forth under "Close-Out/Certification Procedures," including, without limitation, submission of an approved set of complete Record Drawings.

21.2.8 Architect shall have issued its written approval that final payment can be made.

21.2.9 The Contractor shall have delivered to the District all manuals and materials required by the Contract Documents, which must be approved by the District.

21.2.10 The Contractor shall have completed final clean-up as provided herein.

21.3 **Retention**

21.3.1 The retention, less any amounts disputed by the District or that the District has the right to withhold pursuant to provisions herein, shall be paid:

21.3.1.1 After approval by the Architect of the Application and Certificate of Payment,

21.3.1.2 After the satisfaction of the conditions set forth herein, and

21.3.1.3 After forty-five (45) days after the recording of the Notice of Completion by District.

21.3.2 No interest shall be paid on any retention, or on any amounts withheld due to a failure of the Contractor to perform, in accordance with the terms and conditions of the Contract Documents, except as provided to the contrary in any Escrow Agreement between the District and the Contractor pursuant to Public Contract Code section 22300.

21.4 **Substitution of Securities**

The District will permit the substitution of securities in accordance with the provisions of Public Contract Code section 22300.

22. **UNCOVERING OF WORK**

If a portion of the Work is covered without Inspector or Architect approval or not in compliance with the Contract Documents, it must, if required in writing by the District, the Project Inspector, or the Architect, be uncovered for the Project Inspector's or the Architect's observation and be corrected, replaced, and/or recovered at the Contractor's expense without change in the Contract Price or Contract Time.

23. **NONCONFORMING WORK AND CORRECTION OF WORK**

23.1 **Nonconforming Work**

23.1.1 Contractor shall promptly remove from Premises all Work identified by District as failing to conform to the Contract Documents whether incorporated or not. Contractor shall promptly replace and re-execute its own Work to comply with the Contract Documents without additional expense to the District and shall bear the expense of making good all work of other contractors destroyed or damaged by any

removal or replacement pursuant hereto and/or any delays to the District or other Contractors caused thereby.

23.1.2 If Contractor does not remove Work that District has identified as failing to conform to the Contract Documents within a reasonable time, not to exceed **FORTY-EIGHT (48)** hours, District may remove it and may store any material at Contractor's expense. If Contractor does not pay expense(s) of that removal within ten (10) days' time thereafter, District may, upon ten (10) days' written notice, sell any material at auction or at private sale and shall deduct all costs and expenses incurred by the District and/or District may withhold those amounts from payment(s) to Contractor.

23.2 Correction of Work

23.2.1 Correction of Rejected Work

Pursuant to the notice provisions herein, the Contractor shall immediately correct the Work rejected by the District, the Architect, or the Project Inspector as failing to conform to the requirements of the Contract Documents, whether observed before or after Completion and whether or not fabricated, installed, or completed. The Contractor shall bear costs of correcting the rejected Work, including additional testing, inspections, and compensation for the Inspector's or the Architect's services and expenses made necessary thereby.

23.2.2 One-Year Warranty Corrections

If, within one (1) year after the date of Completion of the Work or a designated portion thereof, or after the date for commencement of warranties established hereunder, or by the terms of an applicable special warranty required by the Contract Documents, any of the Work is found to be not in accordance with the requirements of the Contract Documents, the Contractor shall correct it promptly after receipt of written notice from the District to do so. This period of one (1) year shall be extended with respect to portions of the Work first performed after Completion by the period of time between Completion and the actual performance of the Work. This obligation hereunder shall survive acceptance of the Work under the Contract and termination of the Contract. The District shall give such notice promptly after discovery of the condition.

23.3 District's Right to Perform Work

23.3.1 If the Contractor should neglect to prosecute the Work properly or fail to perform any provisions of this contract, the District, after **FORTY-EIGHT (48)** hours written notice to the Contractor, may, without prejudice to any other remedy it may have, make good such deficiencies and may deduct the cost thereof from the payment then or thereafter due the Contractor.

23.3.2 If it is found at any time, before or after completion of the Work, that Contractor has varied from the Drawings and/or Specifications, including, but not limited to, variation in material, quality, form, or finish, or in the amount or value of the materials and labor used, District may require at its option:

23.3.2.1 That all such improper Work be removed, remade or replaced, and all work disturbed by these changes be made good by Contractor at no additional cost to the District;

23.3.2.2 That the District deduct from any amount due Contractor the sum of money equivalent to the difference in value between the work performed and that called for by the Drawings and Specifications; or

23.3.2.3 That the District exercise any other remedy it may have at law or under the Contract Documents, including but not limited to the District hiring its own forces or another contractor to replace the Contractor's nonconforming Work, in which case the District shall either issue a deductive Change Order, a Construction Change Directive, or invoice the Contractor for the cost of that work. Contractor shall pay any invoices within thirty (30) days of receipt of same or District may withhold those amounts from payment(s) to Contractor.

24. TERMINATION AND SUSPENSION

24.1 District's Right to Terminate Contractor for Cause

24.1.1 Grounds for Termination: The District, in its sole discretion, may terminate the Contract and/or terminate the Contractor's right to perform the work of the Contract based upon any of the following:

24.1.1.1 Contractor refuses or fails to execute the Work or any separable part thereof with sufficient diligence as will ensure its completion within the time specified or any extension thereof, or

24.1.1.2 Contractor fails to complete said Work within the time specified or any extension thereof, or

24.1.1.3 Contractor persistently fails or refused to perform Work or provide material of sufficient quality as to be in compliance with Contract Documents; or

24.1.1.4 Contractor persistently or repeatedly refuses fails, except in cases for which extension of time is provided, to supply enough properly skilled workers or proper materials to complete the Work in the time specified; or

24.1.1.5 Contractor fails to make prompt payment to Subcontractors, or for material, or for labor; or

24.1.1.6 Contractor persistently disregards laws, or ordinances, or instructions of District; or

24.1.1.7 Contractor fails to supply labor, including that of Subcontractors, that is sufficient to prosecute the Work or that can work in harmony with all other elements of labor employed or to be employed on the Work; or

24.1.1.8 Contractor or its Subcontractor(s) is/are otherwise in breach, default, or in substantial violation of any provision of this Contract, including but not limited to a lapse in licensing or registration.

24.1.2 Notification of Termination

24.1.2.1 Upon the occurrence at District's sole determination of any of the above conditions, District may, without prejudice to any other right or remedy, serve written notice upon Contractor and its Surety of District's termination of this Contract and/or the Contractor's right to perform the work of the Contract. This notice will contain the reasons for termination. Unless, within three (3) days after the service of the notice, any and all condition(s) shall cease, and any and all violation(s) shall cease, or arrangement satisfactory to District for the correction of the condition(s) and/or violation(s) be made, this Contract shall cease and terminate. Upon Termination, Contractor shall not be entitled to receive any further payment until the entire Work is finished.

24.1.2.2 Upon Termination, District may immediately serve written notice of tender upon Surety whereby Surety shall have the right to take over and perform this Contract only if Surety:

24.1.2.2.1 Within three (3) days after service upon it of the notice of tender, gives District written notice of Surety's intention to take over and perform this Contract; and

24.1.2.2.2 Commences performance of this Contract within three (3) days from date of serving of its notice to District.

24.1.2.3 Surety shall not utilize Contractor in completing the Project if the District notifies Surety of the District's objection to Contractor's further participation in the completion of the Project. Surety expressly agrees that any contractor which Surety proposes to fulfill Surety's obligations is subject to District's approval. District's approval shall not be unreasonably withheld, conditioned or delayed.

24.1.2.4 If Surety fails to notify District or begin performance as indicated herein, District may take over the Work and execute the Work to completion by any method it may deem advisable at the expense of Contractor and/or its Surety. Contractor and/or its Surety shall be liable to District for any excess cost or other damages the District incurs thereby. Time is of the essence in this Contract. If the District takes over the Work as herein provided, District may, without liability for so doing, take possession of and utilize in completing the Work such materials, appliances, plan, and other property belonging to Contractor as may be on the Site of the Work, in bonded storage, or previously paid for.

24.1.3 Effect of Termination

24.1.3.1 Contractor shall, only if ordered to do so by the District, immediately remove from the Site all or any materials and personal property belonging to Contractor that have not been incorporated in the construction of the Work, or

which are not in place in the Work. The District retains the right, but not the obligation, to keep and use any materials and personal property belonging to Contractor that have not been incorporated in the construction of the Work, or which are not in place in the Work. The Contractor and its Surety shall be liable upon the performance bond for all damages caused to the District by reason of the Contractor's failure to complete the Contract.

24.1.3.2 In the event that the District shall perform any portion of, or the whole of the Work, pursuant to the provisions of the General Conditions, the District shall not be liable nor account to the Contractor in any way for the time within which, or the manner in which, the Work is performed by the District or for any changes the District may make in the Work or for the money expended by the District in satisfying claims and/or suits and/or other obligations in connection with the Work.

24.1.3.3 In the event that the Contract is terminated for any reason, no allowances or compensation will be granted for the loss of any anticipated profit by the Contractor or any impact or impairment of Contractor's bonding capacity.

24.1.3.4 If the expense to the District to finish the Work exceeds the unpaid Contract Price, Contractor and Surety shall pay difference to District within twenty-one (21) days of District's request.

24.1.3.5 The District shall have the right (but shall have no obligation) to assume and/or assign to a general contractor or construction manager or other third party who is qualified and has sufficient resources to complete the Work, the rights of the Contractor under its subcontracts with any or all Subcontractors. In the event of an assumption or assignment by the District, no Subcontractor shall have any claim against the District or third party for Work performed by Subcontractor or other matters arising prior to termination of the Contract. The District or any third party, as the case may be, shall be liable only for obligations to the Subcontractor arising after assumption or assignment. Should the District so elect, the Contractor shall execute and deliver all documents and take all steps, including the legal assignment of its contractual rights, as the District may require, for the purpose of fully vesting in the District the rights and benefits of its Subcontractor under Subcontracts or other obligations or commitments. All payments due the Contractor hereunder shall be subject to a right of offset by the District for expenses and damages suffered by the District as a result of any default, acts, or omissions of the Contractor. Contractor must include this assignment provision in all of its contracts with its Subcontractors.

24.1.3.6 The foregoing provisions are in addition to and not in limitation of any other rights or remedies available to District.

24.1.4 Emergency Termination of Public Contracts Act of 1949

24.1.4.1 This Contract is subject to termination as provided by sections 4410 and 4411 of the Government Code of the State of California, being a portion of the Emergency Termination of Public Contracts Act of 1949.

24.1.4.1.1 Section 4410 of the Government Code states:

In the event a national emergency occurs, and public work, being performed by contract, is stopped, directly or indirectly, because of the freezing or diversion of materials, equipment or labor, as the result of an order or a proclamation of the President of the United States, or of an order of any federal authority, and the circumstances or conditions are such that it is impracticable within a reasonable time to proceed with a substantial portion of the work, then the public agency and the contractor may, by written agreement, terminate said contract.

24.1.4.1.2 Section 4411 of the Government Code states:

Such an agreement shall include the terms and conditions of the termination of the contract and provision for the payment of compensation or money, if any, which either party shall pay to the other or any other person, under the facts and circumstances in the case.

24.1.4.2 Compensation to the Contractor shall be determined at the sole discretion of District on the basis of the reasonable value of the Work done, including preparatory work. As an exception to the foregoing and at the District's discretion, in the case of any fully completed separate item or portion of the Work for which there is a separate previously submitted unit price or item on the accepted schedule of values, that price shall control. The District, at its sole discretion, may adopt the Contract Price as the reasonable value of the work done or any portion thereof.

24.2 Termination of Contractor for Convenience

24.2.1 District in its sole discretion may terminate the Contract upon three (3) days' written notice to the Contractor. Under a termination for convenience, the District retains the right to all the options available to the District if there is a termination for cause. In case of a termination for convenience, the Contractor shall have no claims against the District except:

24.2.1.1 The actual cost for labor, materials, and services performed that is unpaid and adequately documented through timesheets, invoices, receipts, or otherwise, and

24.2.1.2 Five percent (5%) of the total cost of work performed as of the date of termination, or five percent (5%) of the value of the Work yet to be performed, whichever is less. This five percent (5%) amount shall be full compensation for all Contractor's and Subcontractor(s)' mobilization and/or demobilization costs and any anticipated loss profits resulting from termination of the Contractor for convenience.

24.3 Suspension of Work

24.3.1 District in its sole discretion may suspend, delay or interrupt the Work in whole or in part for such period of time as the District may determine upon three (3) days written notice to the Contractor.

24.3.1.1 An adjustment may be made for changes in the cost of performance of the Work caused by any such suspension, delay or interruption. No adjustment shall be made to the extent:

24.3.1.1.1 That performance is, was or would have been so suspended, delayed or interrupted by another cause for which Contractor is responsible; or

24.3.1.1.2 That an equitable adjustment is made or denied under another provision of the Contract; or

24.3.1.1.3 That the suspension of Work was the direct or indirect result of Contractor's failure to perform any of its obligations hereunder.

24.3.1.2 Any adjustments in cost of performance may have a fixed or percentage fee as provided in the section on Format for Proposed Change Order herein. This amount shall be full compensation for all Contractor's and its Subcontractor(s)' changes in the cost of performance of the Contract caused by any such suspension, delay or interruption.

25. CLAIMS PROCESS

25.1 Performance during Claim Process

Contractor and its subcontractors shall continue to perform its Work under the Contract and shall not cause a delay of the Work during any dispute, claim, negotiation, mediation, or arbitration proceeding, except by written agreement by the District.

25.2 Definition of Claim

25.2.1 Pursuant to Public Contract Code section 9204, the term "Claim" means a separate demand by the Contractor sent by registered mail or certified mail with return receipt requested, for one or more of the following:

25.2.1.1 A time extension, including without limitation, for relief of damages or penalties for delay assessed by the District under the Contract;

25.2.1.2 Payment by the District of money or damages arising from work done by, or on behalf of, the Contractor pursuant to the Contract and payment of which is not otherwise expressly provided for or to which Contractor is not otherwise entitled to; or

25.2.1.3 An amount of payment disputed by the District.

25.3 Claims Presentation

25.3.1 If Contractor intends to apply for an increase in the Contract Price or Contract Time for any reason including, without limitation, the acts of District or its agents, Contractor shall, within thirty (30) days after the event giving rise to the Claim, give notice of the Claim in writing, including an itemized statement of the details and amounts of its Claim for any increase in the Contract Price of Contract

Time, including a Schedule Analysis and any and all other documentation substantiating Contractor's claimed damages. Otherwise, Contractor shall have waived and relinquished its dispute against the District and Contractor's claims for compensation or an extension of time shall be forfeited and invalidated. Likewise, failure to timely submit a claim and the requisite supporting documentation shall constitute a waiver of such claim.

25.3.2 The Claim shall identify:

25.3.2.1 The issues, events, conditions, circumstances and/or causes giving rise to the dispute, and shall show, in detail, the cause and effect of same;

25.3.2.2 The pertinent dates and/or durations and actual and/or anticipated effects on the Contract Price, Contract Schedule milestones and/or Contract Time adjustments;

25.3.2.3 The line-item costs for labor, material, and/or equipment, if applicable; and

25.3.2.4 A request by Contractor, if any, to waive the claims procedure under Public Contract Code section 9204 and proceed directly to the commencement of a civil action or binding arbitration.

25.3.3 The Claim shall include the following certification by the Contractor:

25.3.3.1 The undersigned Contractor certifies under penalty of perjury that the attached dispute is made in good faith; that the supporting data is accurate and complete to the best of my knowledge and belief; that the amount requested accurately reflects the adjustment for which Contractor believes the District is liable; and that I am duly authorized to certify the dispute on behalf of the Contractor.

25.3.3.2 Furthermore, Contractor understands that the value of the attached dispute expressly includes any and all of the Contractor's costs and expenses, direct and indirect, resulting from the Work performed on the Project, additional time required on the Project and/or resulting from delay to the Project. Contractor may not separately recover for overhead or other indirect costs. Any costs, expenses, damages, or time extensions not included are deemed waived.

25.4 Claim Resolution pursuant to Public Contract Code section 9204

25.4.1 STEP 1:

25.4.1.1 Upon receipt of a Claim by registered or certified mail, return receipt requested, including the documents necessary to substantiate it, the District shall conduct a reasonable review of the Claim and, within a period **not to exceed 45 days**, shall provide the Contractor a written statement identifying what portion of the Claim is disputed and what portion is undisputed. Upon receipt of a Claim, the District and Contractor may, **by mutual agreement, extend the time period** to provide a written statement. If the District needs approval from its governing body to provide the Contractor a written statement identifying the disputed portion and the undisputed portion of the Claim, and the governing body does not meet within the 45 days or within the mutually agreed to extension of time following receipt of Claim sent by registered mail or certified mail, return receipt requested, the District shall have **up to three (3) days following the next duly publicly noticed meeting of the governing body after the 45-day period, or extension**, expires to provide Contractor a written statement identifying the disputed portion and the undisputed portion.

25.4.1.1.1 Any payment due on an undisputed portion of the Claim shall be processed and made within 60 days after the District issues its written statement. Amounts not paid in a timely manner as required by this section, section 25.4, shall bear interest at seven percent (7%) per annum.

25.4.1.2 Upon receipt of a Claim, the parties may mutually agree to waive, in writing, mediation and proceed directly to the commencement of a civil action or binding arbitration, as applicable. In this instance, District and Contractor must comply with the sections below regarding Public Contract Code section 20104 et seq. and Government Code Claim Act Claims.

25.4.1.3 If the District fails to issue a written statement, or to otherwise meet the time requirements of this section, this shall result in the Claim being deemed rejected in its entirety. A Claim that is denied by reason of the District's failure to have responded to a Claim, or its failure to otherwise meet the time requirements of this section, shall not constitute an adverse finding with regard to the merits of the Claim or the responsibility or qualifications of Contractor.

25.4.2 STEP 2:

25.4.2.1 If Contractor disputes the District's written response, or if the District fails to respond to a Claim within the time prescribed, Contractor may demand in writing an informal conference to meet and confer for settlement of the issues in dispute. Upon receipt of a demand in writing sent by registered mail or certified mail, return receipt requested, the District shall schedule a meet and confer conference within 30 days for settlement of the dispute. Within 10 business days following the conclusion of the meet and confer conference, if the Claim or any portion of the Claim remains in dispute, the District shall provide the Contractor a written statement identifying the portion of the Claim that remains in dispute and the portion that is undisputed.

25.4.2.1.1.1 Any payment due on an undisputed portion of the Claim shall be processed and made within 60 days after the District issues its written statement. Amounts not paid in a timely manner as required by this section, section 25.4, shall bear interest at seven percent (7%) per annum.

25.4.3 STEP 3:

25.4.3.1 Any disputed portion of the Claim, as identified by Contractor in writing, shall be submitted to nonbinding mediation, with the District and Contractor sharing the associated costs equally. The District and Contractor shall mutually agree to a mediator within 10 business days after the disputed portion of the Claim has been identified in writing. If the parties cannot agree upon a mediator, each party shall select a mediator and those mediators shall select a qualified neutral third party to mediate with regard to the disputed portion of the Claim. Each party shall bear the fees and costs charged by its respective mediator in connection with the selection of the neutral mediator. If mediation is unsuccessful, the parts of the Claim remaining in dispute shall be subject to applicable procedures outside this section.

25.4.3.1.1 For purposes of this section, mediation includes any nonbinding process, including, but not limited to, neutral evaluation or a dispute review board, in which an independent third party or board assists the parties in dispute resolution through negotiation or by issuance of an evaluation. Any mediation utilized shall conform to the timeframes in this section.

25.4.3.2 Unless otherwise agreed to by the District and Contractor in writing, the mediation conducted pursuant to this section shall excuse any further obligation under Public Contract Code section 20104.4 to mediate after litigation has been commenced.

25.4.4 STEP 4:

25.4.4.1 If mediation under this section does not resolve the parties' dispute, the District may, but does not require arbitration of disputes under private arbitration or the Public Works Contract Arbitration Program.

25.5 Subcontractor Pass-Through Claims

25.5.1 If a subcontractor or a lower tier subcontractor lacks legal standing to assert a claim against a District because privity of contract does not exist, the contractor may present to the District a Claim on behalf of a subcontractor or lower tier subcontractor. A subcontractor may request in writing, either on his or her own behalf or on behalf of a lower tier subcontractor, that Contractor present a Claim for work which was performed by the subcontractor or by a lower tier subcontractor on behalf of the subcontractor. The subcontractor requesting that the Claim be presented to the District shall furnish reasonable documentation to support the Claim.

25.5.2 Within 45 days of receipt of this written request from a subcontractor, Contractor shall notify the subcontractor in writing as to whether the Contractor

presented the Claim to the District and, if Contractor did not present the Claim, provide the subcontractor with a statement of the reasons for not having done so.

25.5.3 The Contractor shall bind all its Subcontractors to the provisions of this section and will hold the District harmless against Claims by Subcontractors.

25.6 Government Code Claim Act Claim

25.6.1 If a claim, or any portion thereof, remains in dispute upon satisfaction of all applicable Claim Resolution requirements, including those pursuant to Public Contract Code section 9204, the Contractor shall comply with all claims presentation requirements as provided in Chapter 1 (commencing with section 900) and Chapter 2 (commencing with section 910) of Part 3 of Division 3.6 of Title 1 of Government Code as a condition precedent to the Contractor's right to bring a civil action against the District. For purposes of those provisions, the running of the time within which a claim must be presented to the District shall be tolled from the time Contractor submits its written Claim until the time the Claim is denied, including any time utilized by any applicable meet and confer process.

25.7 Claim Resolution pursuant to Public Contract Code section 20104 et seq.

25.7.1 In the event of a disagreement between the parties as to performance of the Work, the interpretation of this Contract, or payment or nonpayment for Work performed or not performed, the parties shall attempt to resolve all claims of three hundred seventy-five thousand dollars (\$375,000) or less which arise between Contractor and District by those procedures set forth in Public Contract Code section 20104, et seq., to the extent applicable.

25.7.1.1 Contractor shall file with the District any written Claim, including the documents necessary to substantiate it, upon the application for final payment.

25.7.1.2 For claims of less than fifty thousand dollars (\$50,000), the District shall respond in writing within forty-five (45) days of receipt of the Claim or may request in writing within thirty (30) days of receipt of the Claim any additional documentation supporting the Claim or relating to defenses or claims the District may have against the Contractor.

25.7.1.2.1 If additional information is required, it shall be requested and provided by mutual agreement of the parties.

25.7.1.2.2 District's written response to the documented Claim shall be submitted to the Contractor within fifteen (15) days after receipt of the further documentation or within a period of time no greater than that taken by the Contractor to produce the additional information, whichever is greater.

25.7.1.3 For claims of over fifty thousand dollars (\$50,000) and less than or equal to three hundred seventy-five thousand dollars (\$375,000), the District shall respond in writing to all written Claims within sixty (60) days of receipt of the claim, or may request, in writing, within thirty (30) days of receipt of the

Claim any additional documentation supporting the Claim or relating to defenses or claims the District may have against the Contractor.

25.7.1.3.1 If additional information is required, it shall be requested and provided upon mutual agreement of the District and the Contractor.

25.7.1.3.2 The District's written response to the Claim, as further documented, shall be submitted to the Contractor within thirty (30) days after receipt of the further documentation, or within a period of time no greater than that taken by the Contractor to produce the additional information or requested documentation, whichever is greater.

25.7.1.4 If Contractor disputes the District's written response, or the District fails to respond within the time prescribed, Contractor may so notify the District, in writing, either within fifteen (15) days of receipt of the District's response or within fifteen (15) days of the District's failure to respond within the time prescribed, respectively, and demand an informal conference to meet and confer for settlement of the issues in dispute. Upon a demand, the District shall schedule a meet and confer conference within thirty (30) days for settlement of the dispute.

25.7.1.5 Following the meet and confer conference, if the Claim or any portion of it remains in dispute, the Contractor may file a claim as provided in Chapter 1 (commencing with Section 900) and Chapter 2 (commencing with Section 910) of Part 3 of Division 3.6 of Title 1 of the Government Code. For purposes of those provisions the running of the time within which a claim must be filed shall be tolled from the time the Contractor submits its written Claim until the time the Claim is denied, including any period of time utilized by the meet and confer process.

25.7.1.6 For any civil action filed to resolve claims filed pursuant to this section, within sixty (60) days, but no earlier than thirty (30) days, following the filing of responsive pleadings, the court shall submit the matter to nonbinding mediation unless waived by mutual stipulation of both parties. The mediation process shall provide for the selection within fifteen (15) days by both parties of a disinterested third person as mediator, shall be commenced within thirty (30) days of the submittal, and shall be concluded within fifteen (15) days from the commencement of the mediation unless a time requirement is extended upon a good cause showing to the court or by stipulation of both parties. If the parties fail to select a mediator within the 15-day period, any party may petition the court to appoint the mediator.

25.7.1.7 If the matter remains in dispute, the case shall be submitted to judicial arbitration pursuant to Chapter 2.5 (commencing with Section 1141.10) of the Title 3 of Part 3 of the Code of Civil Procedure, notwithstanding Section 1141.11 of that code. The Civil Discovery Act of 1986, (Article 3 (commencing with Section 2016) of Chapter 3 of Title 3 of part 4 of the Code of Civil Procedure) shall apply to any proceeding brought under this subdivision consistent with the rules pertaining to judicial arbitration.

25.7.1.8 The District shall not fail to pay money as to any portion of a Claim which is undisputed except as otherwise provided in the Contract Documents. In any suit filed pursuant to this section, the District shall pay interest due at the legal rate on any arbitration award or judgment. Interest shall begin to accrue on the date the suit is filed in a court of law.

25.7.2 Contractor shall bind its Subcontractors to the provisions of this Section and will hold the District harmless against disputes by Subcontractors.

25.8 Claim Resolution Non-Applicability

25.8.1 The procedures for dispute and claim resolutions set forth in this Article shall not apply to the following:

25.8.1.1 Personal injury, wrongful death or property damage claims;

25.8.1.2 Latent defect or breach of warranty or guarantee to repair;

25.8.1.3 Stop payment notices;

25.8.1.4 District's rights set forth in the Article on Suspension and Termination;

25.8.1.5 Disputes arising out of labor compliance enforcement by the Department of Industrial Relations; or

25.8.1.6 District rights and obligations as a public entity set forth in applicable statutes; provided, however, that penalties imposed against a public entity by statutes, including, but not limited to, Public Contract Code sections 20104.50 and 7107, shall be subject to the Claim Resolution requirements provided in this Article.

25.9 Attorney's Fees

25.9.1 Should litigation be necessary to enforce any terms or provisions of this Agreement, then each party shall bear its own litigation and collection expenses, witness fees, court costs and attorney's fees.

26. STATE LABOR, WAGE & HOUR, APPRENTICE, AND RELATED PROVISIONS

26.1 Labor Compliance and Enforcement

Since this Project is subject to labor compliance and enforcement by the Department of Industrial Relations ("DIR"), 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 and Title 8 of the California Code of Regulations, including, without limitation, the requirement that the Contractor and all Subcontractors shall timely furnish complete and accurate electronic certified payroll records directly to the DIR. The District may not issue payment if this requirement is not met.

26.2 Wage Rates, Travel, and Subsistence

26.2.1 Pursuant to the provisions of Article 2 (commencing at section 1770), Chapter 1, Part 7, Division 2, of the Labor Code, the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work in the locality in which this public work is to be performed for each craft, classification, or type of worker needed to execute this Contract are on file at the District's principal office and copies will be made available to any interested party on request. Contractor shall obtain and post a copy of these wage rates at the job site.

26.2.2 Holiday and overtime work, when permitted by law, shall be paid for at the general prevailing rate of per diem wages for holiday and overtime work on file with the Director of the Department of Industrial Relations, unless otherwise specified. The holidays upon which those rates shall be paid need not be specified by the District, but shall be all holidays recognized in the applicable collective bargaining agreement. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code.

26.2.3 Contractor shall pay and shall cause to be paid each worker engaged in Work on the Project the general prevailing rate of per diem wages determined by the Director of the Department of Industrial Relations, regardless of any contractual relationship which may be alleged to exist between Contractor or any Subcontractor and such workers.

26.2.4 If during the period this bid is required to remain open, the Director of the Department of Industrial Relations determines that there has been a change in any prevailing rate of per diem wages in the locality in which the Work under the Contract is to be performed, such change shall not alter the wage rates in the Notice to Bidders or the Contract subsequently awarded.

26.2.5 Pursuant to Labor Code section 1775, Contractor shall, as a penalty to District, forfeit the statutory amount (believed by the District to be currently up to two hundred dollars (\$200) for each calendar day, or portion thereof, for each worker paid less than the prevailing rates, determined by the District and/or the Director, for the work or craft in which that worker is employed for any public work done under Contract by Contractor or by any Subcontractor under it. The difference between such prevailing wage rates and the amount paid to each worker for each calendar day or portion thereof for which each worker was paid less than the prevailing wage rate shall be paid to each worker by Contractor.

26.2.6 Any worker employed to perform Work on the Project, which Work is not covered by any classification listed in the general prevailing wage rate of per diem wages determined by the Director, shall be paid not less than the minimum rate of wages specified therein for the classification which most nearly corresponds to Work to be performed by him, and such minimum wage rate shall be retroactive to time of initial employment of such person in such classification.

26.2.7 Pursuant to Labor Code section 1773.1, per diem wages are deemed to include employer payments for health and welfare, pension, vacation, travel time,

subsistence pay, and apprenticeship or other training programs authorized by Labor Code section 3093, and similar purposes.

26.2.8 Contractor shall post at appropriate conspicuous points on the Site of Project, a schedule showing all determined minimum wage rates and all authorized deductions, if any, from unpaid wages actually earned. In addition, Contractor shall post a sign-in log for all workers and visitors to the Site, a list of all subcontractors of any tier on the Site, and the required Equal Employment Opportunity poster(s).

26.3 Hours of Work

26.3.1 As provided in article 3 (commencing at section 1810), chapter 1, part 7, division 2, of the Labor Code, eight (8) hours of labor shall constitute a legal day's work. The time of service of any worker employed at any time by Contractor or by any Subcontractor on any subcontract under this Contract upon the Work or upon any part of the Work contemplated by this Contract shall be limited and restricted by Contractor to eight (8) hours per day, and forty (40) hours during any one week, except as hereinafter provided. Notwithstanding the provisions hereinabove set forth, Work performed by employees of Contractor in excess of eight (8) hours per day and forty (40) hours during any one week, shall be permitted upon this public work upon compensation for all hours worked in excess of eight (8) hours per day at not less than one and one-half times the basic rate of pay.

26.3.2 Contractor shall keep and shall cause each Subcontractor to keep an accurate record showing the name of and actual hours worked each calendar day and each calendar week by each worker employed by Contractor in connection with the Work or any part of the Work contemplated by this Contract. The record shall be kept open at all reasonable hours to the inspection of District and to the Division of Labor Standards Enforcement of the DIR.

26.3.3 Pursuant to Labor Code section 1813, Contractor shall as a penalty to the District forfeit the statutory amount (believed by the District to be currently twenty-five dollars (\$25)) for each worker employed in the execution of this Contract by Contractor or by any Subcontractor for each calendar day during which such worker is required or permitted to work more than eight (8) hours in any one calendar day and forty (40) hours in any one calendar week in violation of the provisions of article 3 (commencing at section 1810), chapter 1, part 7, division 2, of the Labor Code.

26.3.4 Any Work necessary to be performed after regular working hours, or on Sundays or other holidays shall be performed without additional expense to the District.

26.4 Payroll Records

26.4.1 Contractor shall upload, and shall cause each Subcontractor performing any portion of the Work under this Contract to upload, an accurate and complete certified payroll record ("CPR") electronically using DIR's eCPR System by uploading the CPRs by electronic XML file or entering each record manually using the DIR's iform (or current form) online on a weekly basis and within ten (10) days of any request by the District or Labor Commissioner at <http://www.dir.ca.gov/Public-Works/Certified-Payroll-Reporting.html> or current application and URL, showing the

name, address, social security number, work classification, straight-time, and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by the Contractor and/or each Subcontractor in connection with the Work.

26.4.1.1 The CPRs enumerated hereunder shall be filed directly with the DIR on a weekly basis or to the requesting party, whether the District or DIR, within ten (10) days after receipt of each written request. The CPRs from the Contractor and each Subcontractor for each week shall be provided on or before Wednesday of the week following the week covered by the CPRs. District may not make any payment to Contractor until:

26.4.1.1.1 Contractor and/or its Subcontractor(s) provide CPRs acceptable to the DIR; and

26.4.1.1.2 Any delay in Contractor and/or its Subcontractor(s) providing CPRs to the DIR in a timely manner may directly delay Contractor's payment.

26.4.2 All CPRs shall be available for inspection at all reasonable hours at the principal office of Contractor on the following basis:

26.4.2.1 A certified copy of an employee's CPR shall be made available for inspection or furnished to the employee or his/her authorized representative on request.

26.4.2.2 CPRs shall be made available for inspection or furnished upon request to a representative of District, Division of Labor Standards Enforcement, Division of Apprenticeship Standards, and/or the DIR.

26.4.2.3 CPRs shall be made available upon request by the public for inspection or copies thereof made; provided, however, that a request by the public shall be made through the District, Division of Apprenticeship Standards, or the Division of Labor Standards Enforcement. If the requested CPRs have not been provided pursuant to the provisions herein, the requesting party shall, prior to being provided the records reimburse the costs of preparation by Contractor, Subcontractors, and the entity through which the request was made. The public shall not be given access to the records at the principal office of Contractor.

26.4.3 Any copy of records made available for inspection as copies and furnished upon request to the public or any public agency by District, Division of Apprenticeship Standards, or Division of Labor Standards Enforcement shall be marked or obliterated in such a manner as to prevent disclosure of an individual's name, address, and social security number. The name and address of Contractor awarded Contract or performing Contract shall not be marked or obliterated.

26.4.4 Contractor shall inform District of the location of the records enumerated hereunder, including the street address, city, and county, and shall, within five (5) working days, provide a notice of change of location and address.

26.4.5 In the event of noncompliance with the requirements of this section, Contractor shall have ten (10) days in which to comply subsequent to receipt of

written notice specifying in what respects Contractor must comply with this section. Should noncompliance still be evident after the ten (10) day period, Contractor shall, as a penalty to District, forfeit up to one hundred dollars (\$100) for each calendar day, or portion thereof, for each worker, until strict compliance is effectuated. Upon the request of the Labor Commissioner, these penalties shall be withheld from progress payments then due.

26.4.6 [RESERVED]

26.5 [RESERVED]

26.6 Apprentices

26.6.1 Contractor acknowledges and agrees that, if this Contract involves a dollar amount greater than or a number of working days greater than that specified in Labor Code section 1777.5, then this Contract is governed by the provisions of Labor Code Section 1777.5. It shall be the responsibility of Contractor to ensure compliance with this Article and with Labor Code section 1777.5 for all apprenticeship occupations.

26.6.2 Apprentices of any crafts or trades may be employed and, when required by Labor Code section 1777.5, shall be employed provided they are properly registered in full compliance with the provisions of the Labor Code.

26.6.3 Every such apprentice shall be paid the standard wage paid to apprentices under the regulations of the craft or trade at which he/she is employed, and shall be employed only at the work of the craft or trade to which she/he is registered.

26.6.4 Only apprentices, as defined in section 3077 of the Labor Code, who are in training under apprenticeship standards and written apprentice agreements under chapter 4 (commencing at section 3070), division 3, of the Labor Code, are eligible to be employed. The employment and training of each apprentice shall be in accordance with the provisions of the apprenticeship standards and apprentice agreements under which he/she is training.

26.6.5 Pursuant to Labor Code section 1777.5, if that section applies to this Contract as indicated above, Contractor and any Subcontractors employing workers in any apprenticeable craft or trade in performing any Work under this Contract shall apply to the applicable joint apprenticeship committee for a certificate approving the Contractor or Subcontractor under the applicable apprenticeship standards and fixing the ratio of apprentices to journeymen employed in performing the Work.

26.6.6 Pursuant to Labor Code section 1777.5, if that section applies to this Contract as indicated above, Contractor and any Subcontractor may be required to make contributions to the apprenticeship program.

26.6.7 If Contractor or Subcontractor willfully fails to comply with Labor Code section 1777.5, then, upon a determination of noncompliance by the Administrator of Apprenticeship, it shall:

26.6.7.1 Be denied the right to bid on any subsequent project for one (1) year from the date of such determination;

26.6.7.2 Forfeit as a penalty to District the full amount as stated in Labor Code section 1777.7. Interpretation and enforcement of these provisions shall be in accordance with the rules and procedures of the California Apprenticeship Council and under the authority of the Chief of the Division of Apprenticeship Standards.

26.6.8 Contractor and all Subcontractors shall comply with Labor Code section 1777.6, which section forbids certain discriminatory practices in the employment of apprentices.

26.6.9 Contractor shall become fully acquainted with the law regarding apprentices prior to commencement of the Work. Special attention is directed to sections 1777.5, 1777.6, and 1777.7 of the Labor Code, and title 8, California Code of Regulations, section 200 *et seq.* Questions may be directed to the State Division of Apprenticeship Standards, 455 Golden Gate Avenue, 9th floor, San Francisco, California 94102.

26.7 Non-Discrimination

26.7.1 Contractor herein agrees not to discriminate in its recruiting, hiring, promotion, demotion, or termination practices on the basis of race, religious creed, national origin, ancestry, sex, age, or physical handicap in the performance of this Contract and to comply with the provisions of the California Fair Employment and Housing Act as set forth in part 2.8 of division 3 of the California Government Code, commencing at section 12900; the Federal Civil Rights Act of 1964, as set forth in Public Law 88-352, and all amendments thereto; Executive Order 11246; and all administrative rules and regulations found to be applicable to Contractor and Subcontractor.

26.7.2 Special requirements for Federally Assisted Construction Contracts: During the performance of this Contract, Contractor agrees to incorporate in all subcontracts the provisions set forth in Chapter 60-1.4(b) of Title 41 published in Volume 33 No. 104 of the Federal Register dated May 28, 1968.

26.8 Labor First Aid

Contractor shall maintain emergency first aid treatment for Contractor's workers on the Project which complies with the Federal Occupational Safety and Health Act of 1970 (29 U.S.C. § 651 *et seq.*) and the California Occupational Safety and Health Act of 1973 (8 Cal. Code of Regs., §1 *et seq.*).

27. [RESERVED]

28. MISCELLANEOUS

28.1 Assignment of Antitrust Actions

28.1.1 Section 7103.5(b) of the Public Contract Code states:

In entering into a public works contract or subcontract to supply goods, services, or materials pursuant to a public works contract, the Contractor or subcontractor offers and agrees to assign to the awarding body all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Chapter 2 (commencing with Section 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, which assignment shall be made and become effective at the time the awarding body tenders final payment to the Contractor, without further acknowledgment by the parties.

28.1.2 Section 4552 of the Government Code states:

In submitting a bid to a public purchasing body, the bidder offers and agrees that if the bid is accepted, it will assign to the purchasing body all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Chapter 2 (commencing with Section 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, materials, or services by the bidder for sale to the purchasing body pursuant to the bid. Such assignment shall be made and become effective at the time the purchasing body tenders final payment to the bidder.

28.1.3 Section 4553 of the Government Code states:

If an awarding body or public purchasing body receives, either through judgment or settlement, a monetary recovery for a cause of action assigned under this chapter, the assignor shall be entitled to receive reimbursement for actual legal costs incurred and may, upon demand, recover from the public body any portion of the recovery, including treble damages, attributable to overcharges that were paid by the assignor but were not paid by the public body as part of the bid price, less the expenses incurred in obtaining that portion of the recovery.

28.1.4 Section 4554 of the Government Code states:

Upon demand in writing by the assignor, the assignee shall, within one year from such demand, reassign the cause of action assigned under this part if the assignor has been or may have been injured by the violation of law for which the cause of action arose and (a) the assignee has not been injured thereby, or (b) the assignee declines to file a court action for the cause of action.

28.1.5 Under this Article, "public purchasing body" is District and "bidder" is Contractor.

28.2 **Excise Taxes**

If, under Federal Excise Tax Law, any transaction hereunder constitutes a sale on which a Federal Excise Tax is imposed and the sale is exempt from such Federal Excise Tax because it is a sale to a State or Local Government for its exclusive use, District, upon request, will execute documents necessary to show (1) that District is a political subdivision of the State for the purposes of such exemption, and (2) that the sale is for the exclusive use of District. No Federal Excise Tax for such materials shall be included in any Contract Price.

28.3 Taxes

Contract Price is to include any and all applicable sales taxes or other taxes that may be due in accordance with section 7051 of the Revenue and Taxation Code, Regulation 1521 of the State Board of Equalization or any other tax code that may be applicable.

28.4 Shipments

All shipments must be F.O.B. destination to Site or sites, as indicated in the Contract Documents. There must be no charge for containers, packing, unpacking, drayage, or insurance. The total Contract Price shall be all inclusive (including sales tax) and no additional costs of any type will be considered.

28.5 Compliance with Government Reporting Requirements

If this Contract is subject to federal or other governmental reporting requirements because of federal or other governmental financing in whole or in part for the Project of which it is part, or for any other reason, Contactor shall comply with those reporting requirements at the request of the District at no additional cost.

END OF DOCUMENT

SPECIAL CONDITIONS

1. Mitigation Measures
2. Modernization Projects
3. Badge Policy for Contractors
4. Substitution for Specified Items
5. Insurance Policy Limits
6. Permits, Certificates, Licenses, Fees, Approval
7. As-Builts and Record Drawings
8. Fingerprinting
9. Disabled Veteran Business Enterprises
10. Preliminary Schedule of Values

SPECIAL CONDITIONS

1. Mitigation Measures

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

2. Modernization Projects

2.1 Access. Access to the school buildings and entry to buildings, classrooms, restrooms, mechanical rooms, electrical rooms, or other rooms, for construction purposes, must be coordinated with District and onsite District personnel before Work is to start. Unless agreed to otherwise in writing, only a school custodian will be allowed to unlock and lock doors in existing building(s). The custodian will be available only while school is in session. If a custodian is required to arrive before 7:00 a.m. or leave after 3:30 p.m. to accommodate Contractor's Work, the overtime wages for the custodian will be paid by the Contractor, unless at the discretion of the District, other arrangements are made in advance.

2.2 Keys. Upon request, the District may, at its own discretion, provide keys to the school site for the convenience of the Contractor. The Contractor agrees to pay all expenses to re-key the entire school site and all other affected District buildings if the keys are lost or stolen, or if any unauthorized party obtains a copy of the key or access to the school.

2.3 Maintaining Services. The Contractor is advised that Work is to be performed in spaces regularly scheduled for instruction. Interruption and/or periods of shutdown of public access, electrical service, water service, lighting, or other utilities shall be only as arranged in advance with the District. Contractor shall provide temporary services to all facilities interrupted by Contractor's Work.

2.4 Maintaining Utilities. The Contractor shall maintain in operation during duration of Contract, drainage lines, storm drains, sewers, water, gas, electrical, steam, and other utility service lines within working area.

2.5 Confidentiality. Contractor shall maintain the confidentiality of all information, documents, programs, procedures and all other items that Contractor encounters while performing the Work. This requirement shall be ongoing and shall survive the expiration or termination of this Contract and specifically includes, without limitation, all student, parent, and employee disciplinary information and health information.

2.6 Work during Instructional Time. By submitting its bid, Contractor affirms that Work may be performed during ongoing instruction in existing facilities. If so, Contractor agrees to cooperate to the best of its ability to minimize any

disruption to school operations and any use of school facilities by the public up to, and including, rescheduling specific work activities, at no additional cost to District.

2.7 No Work during Student Testing. Contractor shall, at no additional cost to the District and at the District's request, coordinate its Work to not disturb District students including, without limitation, not performing any Work when students at the Site are taking State or Federally-required tests.

3. Badge Policy for Contractors

All Contractors doing work for the District will provide their workers with identification badges. These badges will be worn by all members of the Contractor's staff who are working in a District facility.

3.1 Badges must be filled out in full and contain the following information:

3.1.1 Name of Contractor

3.1.2 Name of Employee

3.1.3 Contractor's address and phone number

3.2 Badges are to be worn when the Contractor or his/her employees are on site and must be visible at all times. Contractors must inform their employees that they are required to allow District employees, the Architect, the Construction Manager, the Program Manager, or the Project Inspector to review the information on the badges upon request.

3.3 Continued failure to display identification badges as required by this policy may result in the individual being removed from the Project or assessment of fines against the Contractor.

4. Substitution for Specified Items

4.1 Whenever in the Specifications any materials, process, or article is indicated or specified by grade, patent, or proprietary name, or by name of manufacturer, that Specification shall be deemed to be followed by the words "or equal." Contractor may, unless otherwise stated, offer any material, process, or article that shall be substantially equal or better in every respect to that so indicated or specified.

4.1.1 If the material, process, or article offered by Contractor is not, in the opinion of the District, substantially equal or better in every respect to that specified, then Contractor shall furnish the material, process, or article specified in the Specifications without any additional compensation or change order.

4.1.2 This provision shall not be applicable with respect to any material, product, thing or service for which District made findings and gave notice in accordance with Public Contract Code section 3400(c); therefore, Contractor shall not be entitled to request a substitution with respect to those materials, products or services.

4.2 A request for a substitution shall be submitted as follows:

4.2.1 Contractor shall notify the District in writing of any request for a substitution at least ten (10) days prior to bid opening as indicated in the Instructions to Bidders.

4.2.2 Requests for Substitutions after award of the Contract shall be submitted within thirty-five (35) days of the date of the Notice of Award.

4.3 Within 35 days after the date of the Notice of Award, Contractor shall provide data substantiating a request for substitution of "an equal" item, including but not limited to the following:

4.3.1 All variations of the proposed substitute from the material specified including, but not limited to, principles of operation, materials, or construction finish, thickness or gauge of materials, dimensions, weight, and tolerances;

4.3.2 Available maintenance, repair or replacement services;

4.3.3 Increases or decreases in operating, maintenance, repair, replacement, and spare parts costs;

4.3.4 Whether or not acceptance of the substitute will require other changes in the Work (or in work performed by the District or others under Contract with the District); and

4.3.5 The time impact on any part of the Work resulting directly or indirectly from acceptance of the proposed substitute.

4.4 No substitutions shall be made until approved, in writing, by the District. The burden of proof as to equality of any material, process, or article shall rest with Contractor. The Contractor warrants that if substitutes are approved:

4.4.1 The proposed substitute is equal or superior in all respects to that specified, and that such proposed substitute is suitable and fit for the intended purpose and will perform adequately the function and achieve the results called for by the general design and the Contract Documents;

4.4.2 The Contractor provides the same warranties and guarantees for the substitute that would be provided for that specified;

4.4.3 The Contractor shall be fully responsible for the installation of the substitute and any changes in the Work required, either directly or indirectly, because of the acceptance of such substitute, with no increase in Contract Price or Contract Time. Incidental changes or extra component parts required to accommodate the substitute will be made by the Contractor without a change in the Contract Price or Contract Time;

4.4.4 The Contractor shall be responsible for any re-design costs occasioned by District's acceptance and/or approval of any substitute; and

4.4.5 The Contractor shall, in the event that a substitute is less costly than that specified, credit the District with one hundred percent (100%) of the net difference between the substitute and the originally specified material. In this event, the Contractor agrees to execute a deductive Change Order to reflect that credit.

4.5 In the event Contractor furnishes a material, process, or article more expensive than that specified, the difference in the cost of that material, process, or article so furnished shall be borne by Contractor.

4.6 In no event shall the District be liable for any increase in Contract Price or Contract Time due to any claimed delay in the evaluation of any proposed substitute or in the acceptance or rejection of any proposed substitute.

4.7 Contractor shall be responsible for any costs the District incurs for professional services, DSA fees, or delay to the Project Schedule, if applicable, while DSA reviews changes for the convenience of Contractor and/or to accommodate Contractor's means and methods. District may deduct those costs from any amounts owing to the Contractor for the review of the request for substitution, even if the request for substitution is not approved. District, at its sole discretion, shall deduct from the payments due to and/or invoice Contractor for all the professional services and/or DSA fees or delay to the Project Schedule, if applicable, while DSA reviews changes for the convenience of Contractor and/or to accommodate Contractor's means and methods arising herein.

5. Insurance Policy Limits

All of Contractor's insurance shall be with insurance companies with an A.M. Best rating of no less than AAA. The limits of insurance shall not be less than:

Commercial General Liability	Product Liability and Completed Operations, Fire Damage Liability – Split Limit	[E.G.] Low Risk: \$1,000,000 per occurrence; \$2,000,000 aggregate
		Intermediate Risk: \$2,000,000 per occurrence; \$4,000,000 aggregate
		High Risk: \$5,000,000 per occurrence; \$10,000,000 aggregate]
Automobile Liability – Any Auto	Combined Single Limit	[E.G.] Personal vehicles: \$500,000 Commercial vehicles: \$1,000,000

		Personal vehicles: \$100,000 per person/ \$300,000 per accident]
Workers' Compensation		Statutory limits pursuant to State law
Employers' Liability		[E.G. \$0]
Builder's Risk (Course of Construction)		Issued for the value and scope of Work indicated herein.
Pollution Liability		[E.G. \$0]

6. Permits, Certificates, Licenses, Fees, Approvals

6.1 Payment for Permits, Certificates, Licenses, Fees, and Approvals. As required in the General Conditions, the Contractor shall secure and pay for all permits, licenses, approvals, and certificates necessary for the prosecution of the Work with the exception of the following:

6.1.1 With respect to the above-listed items, Contractor shall be responsible for securing such items; however, District will be responsible for payment of these charges or fees. Contractor shall notify the District of the amount due with respect to such items and to whom the amount is payable. Contractor shall provide the District with an invoice and receipt with respect to such charges or fees.

6.2 General Permit For Storm Water Discharges Associated With Construction and Land Disturbance Activities

6.2.1 Contractor acknowledges that all California school districts are obligated to develop and implement the following requirements for the discharge of storm water to surface waters from its construction and land disturbance activities (storm water requirements), without limitation:

6.2.1.1 Municipal Separate Storm Sewer System (MS4) is a system of conveyances used to collect and/or convey storm water, including, without limitation, catch basins, curbs, gutters, ditches, man-made channels, and storm drains.

6.2.1.2 Storm Water Pollution Prevention Plan ("SWPPP") contains specific best management practices ("BMPs") and establishes numeric effluent limitations at:

6.2.1.2.1 Sites where the District engages in maintenance (e.g., fueling, cleaning, repairing) for transportation activities.

6.2.1.2.2 Construction sites where:

6.2.1.2.2.1 One (1) or more acres of soil will be disturbed, or

6.2.1.2.2.2 The project is part of a larger common plan of development that disturbs more than one (1) acre of soil.

6.2.2 Contractor shall comply with any District storm water requirements that are approved by the District and applicable to the Project, at no additional cost to the District.

6.2.3 At no additional cost to the District, Contractor shall provide a Qualified Storm Water Practitioner who shall be onsite and implement and monitor any and all SWPPP requirements applicable to the Project, including but not limited to:

6.2.3.1 At least forty eight (48) hours prior to a forecasted rain event, implementing the Rain Event Action Plan (REAP) for any rain event requiring implementation of the REAP, including any erosion and sediment control measures needed to protect all exposed portions of the site; and

6.2.3.2 Monitoring any Numeric Action Levels (NALs), if applicable.

7. As-Builts and Record Drawings

7.1 When called for by Division 1, Contractor shall submit As-Built Drawings pursuant to the Contract Documents consisting of one set of computer-aided design and drafting ("CADD") files in the following format PDF plus one set of As-Built Drawings on bond copy paper.

7.2 Contractor shall submit Record Drawings pursuant to the Contract Documents consisting of one set of computer-aided design and drafting ("CADD") files in the following format PDF plus one set of Record Drawings on bond copy paper.

8. Fingerprinting

Contractor shall comply with the provisions of Education Code section 45125.2 regarding the submission of employee fingerprints to the California Department of Justice and the completion of criminal background investigations of its employees, its subcontractor(s), and its subcontractors' employees. Contractor shall not permit any employee to have any contact with District pupils until such time as Contractor has verified in writing to the governing board of the District, that such employee has not been convicted of a violent or serious felony, as defined in Education Code section 45122.1. Contractor shall fully complete and perform all tasks required pursuant to the Criminal Background Investigation/ Fingerprinting Certification.

9. Disabled Veteran Business Enterprises

This Project uses or may plan to use funds allocated pursuant to the State of California School Facility Program ("Program") for the construction and/or modernization of school buildings. Therefore, Section 17076.11 of the Education Code requires the District to have a participation goal for disabled veteran business enterprises ("DVBE") of at least three percent (3%), per year, of the overall dollar amount expended each year by the District on projects that receive state funding and the Contractor must submit the Disabled Veteran

Business Enterprise Participation Certification to the District with its executed Agreement, identifying the steps Contractor took to solicit DVBE participation in conjunction with this Contract.

10. Preliminary Schedule of Values

The preliminary schedule of values shall include, at a minimum, the following information and the following structure:

Replace provision in the General Conditions with the following provisions:

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

10.1.2.3.1 Mobilization and layout combined to equal not more than **[1]**%;

10.1.1.2.3.2 Submittals, samples and shop drawings combined to equal not more than **[3]**%;

10.1.1.2.3.3 Bonds and insurance combined to equal not more than **[2]**%.

END OF DOCUMENT

HAZARDOUS MATERIALS
PROCEDURES & REQUIREMENTS

1. Summary

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

2. Notice of Hazardous Waste or Materials

- a. Contractor shall give notice in writing to the District, the Construction Manager, and the Architect promptly, before any of the following materials are disturbed, and in no event later than twenty-four (24) hours after first observance, of any:
 - (1) Material that Contractor believes may be a material that is hazardous waste or hazardous material, as defined in section 25117 of the Health and Safety Code, that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of existing law;
 - (2) Other material that may present a substantial danger to persons or property exposed thereto in connection with Work at the site.
- b. Contractor's written notice shall indicate whether the hazardous waste or material was shown or indicated in the Contract Documents to be within the scope of Work, and whether the materials were brought to the site by Contractor, its Subcontractors, suppliers, or anyone else for whom Contractor is responsible. As used in this section the term "hazardous materials" shall include, without limitation, asbestos, lead, Polychlorinated biphenyl (PCB), petroleum and related hydrocarbons, and radioactive material.
- c. In response to Contractor's written notice, the District shall investigate the identified conditions.
- d. If the District determines that conditions do not involve hazardous materials or that no change in terms of Contract is justified, the District shall so notify Contractor in writing, stating reasons. If the District and Contractor cannot agree on whether conditions justify an adjustment in Contract Price or Contract Time, or on the extent of any adjustment, Contractor shall proceed with the Work as directed by the District.
- e. If after receipt of notice from the District, Contractor does not agree to resume Work based on a reasonable belief it is unsafe, or does not agree to resume Work under special conditions, then District may order such portion of Work that is in connection with such hazardous condition or such affected area to be deleted from the Work, or performed by others, or District may invoke its rights to terminate the Contract in whole or in part. District will determine entitlement to or the amount or extent of an adjustment, if any, in

Contract Price or Contract Time as a result of deleting such portion of Work, or performing the Work by others.

- f. If Contractor stops Work in connection with any hazardous condition and in any area affected thereby, Contractor shall immediately redeploy its workers, equipment, and materials, as necessary, to other portions of the Work to minimize delay and disruption.

3. Additional Warranties and Representations

- a. Contractor represents and warrants that it, its employees, and its subcontractors and their employees, shall at all times have the required levels of familiarity with the Site and the Work, training, and ability to comply fully with all applicable laws and contractual requirements for safe and expeditious performance of the Work, including whatever training is or may be required regarding the activities to be performed (including, but not limited to, all training required to address adequately the actual or potential dangers of Contract performance).
- b. Contractor represents and warrants that it, its employees, and its subcontractors and their employees, shall at all times have and maintain in good standing any and all certifications and licenses required by applicable federal, state, and other governmental and quasi-governmental requirements applicable to the Work.
- c. Contractor represents and warrants that it has studied carefully all requirements of the Specifications regarding procedures for demolition, hazardous waste abatement, or safety practices, specified in the Contract, and prior to submitting its bid, has either (a) verified to its satisfaction that the specified procedures are adequate and sufficient to achieve the results intended by the Contract Documents, or (b) by way of approved "or equal" request or request for clarification and written Addenda, secured changes to the specified procedures sufficient to achieve the results intended by the Contract Documents. Contractor accepts the risk that any specified procedure will result in a completed Project in full compliance with the Contract Documents.

4. Monitoring and Testing

- a. District reserves the right, in its sole discretion, to conduct air monitoring, earth monitoring, Work monitoring, and any other tests (in addition to testing required under the agreement or applicable law), to monitor Contract requirements of safe and statutorily compliant work methods and (where applicable) safe re-entry level air standards under state and federal law upon completion of the job, and compliance of the work with periodic and final inspection by public and quasi-public entities having jurisdiction.
- b. Contractor acknowledges that District has the right to perform, or cause to be performed, various activities and tests including, but not limited to, pre-abatement, during abatement, and post-abatement air monitoring, that District shall have no obligation to perform said activities and tests, and that

a portion of said activities and tests may take place prior to the completion of the Work by Contractor. In the event District elects to perform these activities and tests, Contractor shall afford District ample access to the Site and all areas of the Work as may be necessary for the performance of these activities and tests. Contractor will include the potential impact of these activities or tests by District in the Contract Price and the Scheduled Completion Date.

- c. Notwithstanding District's rights granted by this paragraph, Contractor may retain its own industrial hygiene consultant at Contractor's own expense and may collect samples and may perform tests including, but not limited to, pre-abatement, during abatement, and post-abatement personal air monitoring, and District reserves the right to request documentation of all such activities and tests performed by Contractor relating to the Work and Contractor shall immediately provide that documentation upon request.

5. Compliance with Laws

- a. Contractor shall perform safe, expeditious, and orderly work in accordance with the best practices and the highest standards in the hazardous waste abatement, removal, and disposal industry, the applicable law, and the Contract Documents, including, but not limited to, all responsibilities relating to the preparation and return of waste shipment records, all requirements of the law, delivering of all requisite notices, and obtaining all necessary governmental and quasi-governmental approvals.
- b. Contractor represents that it is familiar with and shall comply with all laws applicable to the Work or completed Work including, but not limited to, all federal, state, and local laws, statutes, standards, rules, regulations, and ordinances applicable to the Work relating to:
 - (1) The protection of the public health, welfare and environment;
 - (2) Storage, handling, or use of asbestos, PCB, lead, petroleum based products, radioactive material, or other hazardous materials;
 - (3) The generation, processing, treatment, storage, transport, disposal, destruction, or other management of asbestos, PCB, lead, petroleum, radioactive material, or hazardous waste materials or other waste materials of any kind; and
 - (4) The protection of environmentally sensitive areas such as wetlands and coastal areas.

6. Disposal

- a. Contractor has the sole responsibility for determining current waste storage, handling, transportation, and disposal regulations for the job Site and for each waste disposal facility. Contractor must comply fully at its sole cost and expense with these regulations and any applicable law. District may, but is

not obligated to, require submittals with this information for it to review consistent with the Contract Documents.

- b. Contractor shall develop and implement a system acceptable to District to track hazardous waste from the Site to disposal, including appropriate "Hazardous Waste Manifests" on the EPA form, so that District may track the volume of waste it put in each landfill and receive from each landfill a certificate of receipt.
- c. Contractor shall provide District with the name and address of each waste disposal facility prior to any disposal, and District shall have the express right to reject any proposed disposal facility. Contractor shall not use any disposal facility to which District has objected. Contractor shall document actual disposal or destruction of waste at a designated facility by completing a disposal certificate or certificate of destruction forwarding the original to the District.

7. Permits

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

For example, before commencing any work in connection with the Work involving asbestos-containing materials, or PCBs, or other hazardous materials subject to regulation, Contractor agrees to provide the required notice of intent to renovate or demolish to the appropriate state or federal agency having jurisdiction, by certified mail, return receipt requested, or by some other method of transmittal for which a return receipt is obtained, and to send a copy of that notice to District. Contractor shall not conduct any Work involving asbestos-containing materials or PCBs unless Contractor has first confirmed that the appropriate agency having jurisdiction is in receipt of the required notification. All permits, licenses, and bonds that are required by governmental or quasi-governmental authorities, and all fees, deposits, tap fees, offsite easements, and asbestos and PCB disposal facilities expenses necessary for the prosecution of the Work, shall be procured and paid for by Contractor. Contractor shall give all notices and comply with the all applicable laws bearing on the conduct of the Work as drawn and specified. If Contractor observes or reasonably should have observed that Plans and Specifications and other Contract Documents are at variance therewith, it shall be responsible for promptly notifying District in writing of such fact. If

Contractor performs any Work contrary to applicable laws, it shall bear all costs arising therefrom.

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

8. Indemnification

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

9. Termination

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

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 replacement of the existing windows/window systems throughout the entire existing school as indicated in the Drawings and Specifications. Generally, these categories of work involve new finishes at the instructional areas, library and administrative areas. The Project will involve barricading of work areas as indicated on the Plans and enumerated in these Specifications, and/or as directed by the School District.

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, by the Contractor and/or a Subcontractor as a part of this Contract, prior to the start of and during the Work of this Contract:

- (1) Asbestos removal/abatement.
- (2) Lead paint removal/abatement

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

ALTERNATES AND UNIT PRICING

PART 1 – ALTERNATES

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. Bid Form and Proposal;
- D. Instruction to Bidders.

1.02 DESCRIPTION

The items of work indicated below propose modifications to, substitutions for, additions to and/or deletions from the various parts of the Work specified in other Sections of the Specifications. The acceptance or rejection of any of the alternates is strictly at the option of the District subject to District's acceptance of Contractor's stated prices contained in this Proposal.

1.03 GENERAL

Where an item is omitted, or scope of Work is decreased, all Work pertaining to the item whether specifically stated or not, shall be omitted and where an item is added or modified or where scope of Work is increased, all Work pertaining to that required to render same ready for use on the Project in accordance with intention of Drawings and Specifications shall be included in an agreed upon price amount.

1.04 BASE BID

The Base Bid includes all work required to construct the Project completely and in accordance with the Contract Documents.

1.05 ALTERNATES

NOT USED

PART 2 - UNIT PRICING

2.01 GENERAL

Contractor shall completely state all required figures based on Unit Prices listed below. Where scope of Work is decreased, all Work pertaining to the item, whether specifically stated or not, shall be omitted and where scope of Work is increased, all work pertaining to that item required to render same ready for use on the Project in accordance with intention of Drawings and Specifications shall be included in an agreed upon price amount.

2.02 UNIT PRICES

Furnish unit prices for each of the named items on a square foot, lineal foot, or per each basis, as applies. Unit prices shall include all labor, materials, services, profit, overhead, insurance, bonds, taxes, and all other incidental costs of Contractor, subcontractors, and supplier(s).

1. Removal of additional exterior redwood trim coated with lead-based paint (LBP) to facilitate repair of dry-rot not already covered within the Contract Documents.
2. Drill, core, anchor and/or affix to exterior redwood trim coated with LBP.
3. Removal of additional exterior stucco/plaster coated with LBP to support removal and replacement of aluminum windows and to facilitate repair work not already covered within the Contract Documents.
4. Remove, drill, core, anchor, attach and/or affix to exterior stucco/plaster coated with LBP.

END OF DOCUMENT

DOCUMENT 01 25 13
PRODUCT OPTIONS AND SUBSTITUTIONS

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. Instructions to Bidders;
- B. General Conditions, including, without limitation, Substitutions For Specified Items; and
- C. Special Conditions.

1.02 SUBSTITUTIONS OF MATERIALS AND EQUIPMENT

- A. Catalog numbers and specific brands or trade names followed by the designation "or equal" are used in conjunction with material and equipment required by the Specifications to establish the standards of quality, utility, and appearance required. Substitutions which are equal in quality, utility, and appearance to those specified may be reviewed subject to the provisions of the General Conditions.
- B. Wherever more than one manufacturer's product is specified, the first-named product is the basis for the design used in the work and the use of alternative-named manufacturers' products or substitutes may require modifications in that design. If such alternatives are proposed by Contractor and are approved by the District and/or the Architect, Contractor shall assume all costs required to make necessary revisions and modifications of the design resulting from the substitutions requested by the Contractor.
- C. When materials and equipment are specified by first manufacturer's name and product number, second manufacturer's name and "or approved equal," supporting data for the second product, if proposed by Contractor, shall be submitted in accordance with the requirements for substitutions. The District's Board has found and determined that certain item(s) shall be used on this Project based on the purpose(s) indicated pursuant to Public Contract Code section 3400(c). These findings, as well as the products and brand or trade names, have been identified in the Notice to Bidders.
- D. The Contractor will not be allowed to substitute specified items unless the request for substitution is submitted as follows:
 - (1) District must receive any notice of request for substitution of a specified item a minimum of ten (10) calendar days prior to bid opening.

- (2) Within 35 days after the date of the Notice of Award, the Contractor shall submit data substantiating the request(s) for all substitution(s) containing sufficient information to assess acceptability of product or system and impact on Project, including, without limitation, the requirements specified in the Special Conditions and the technical Specifications. Insufficient information shall be grounds for rejection of substitution.
- E. If the District and/or Architect, in reviewing proposed substitute materials and equipment, require revisions or corrections to be made to previously accepted Shop Drawings and supplemental supporting data to be resubmitted, Contractor shall promptly do so. If any proposed substitution is judged by the District and/or Architect to be unacceptable, the specified material or equipment shall be provided.
- F. Samples may be required. Tests required by the District and/or Architect for the determination of quality and utility shall be made at the expense of Contractor, with acceptance of the test procedure first given by the District.
- G. In reviewing the supporting data submitted for substitutions, the District and/or Architect will use for purposes of comparison all the characteristics of the specified material or equipment as they appear in the manufacturer's published data even though all the characteristics may not have been particularly mentioned in the Contract Documents. If more than two (2) submissions of supporting data are required, the cost of reviewing the additional supporting data shall be borne by Contractor, and the District will deduct the costs from the Contract Price. The Contractor shall be responsible for any re-design costs occasioned by District's acceptance and/or approval of any substitute.
- H. The Contractor shall, in the event that a substitute is less costly than that specified, credit the District with one hundred percent (100%) of the net difference between the substitute and the originally specified material. In this event, the Contractor agrees to execute a deductive Change Order to reflect that credit. In the event Contractor furnishes a material, process, or article more expensive than that specified, the difference in the cost of that material, process, or article so furnished shall be borne by Contractor.
- I. In no event shall the District be liable for any increase in Contract Price or Contract Time due to any claimed delay in the evaluation of any proposed substitute or in the acceptance or rejection of any proposed substitute.

PART 2 – PRODUCTS Not Used.

PART 3 – EXECUTION Not Used.

END OF DOCUMENT

DOCUMENT 01 26 00

CHANGES IN THE WORK

CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE PROVISIONS IN THE AGREEMENT, GENERAL CONDITIONS, AND SPECIAL CONDITIONS, IF USED, RELATED TO CHANGES AND/OR REQUESTS FOR CHANGES.

END OF DOCUMENT

DOCUMENT 01 29 00

**APPLICATION FOR PAYMENT AND
CONDITIONAL AND UNCONDITIONAL WAIVER AND RELEASE FORMS**

**CONTRACTOR SHALL COMPLY WITH ALL PROVISIONS IN THE GENERAL
CONDITIONS RELATED TO APPLICATIONS FOR PAYMENT AND/OR PAYMENTS.**

PITTSBURG UNIFIED SCHOOL DISTRICT
Highlands Elementary School
Window Replacement In-Kind
PLUM architects

**APPLICATION FOR PAYMENT AND
CONDITIONAL AND UNCONDITIONAL
WAIVER AND RELEASE FORMS**

DOCUMENT 01 29 00-1

**CONDITIONAL WAIVER AND RELEASE
ON PROGRESS PAYMENT
(CIVIL CODE SECTION 8132)**

NOTICE: THIS DOCUMENT WAIVES THE CLAIMANT'S LIEN, STOP PAYMENT NOTICE, AND PAYMENT BOND RIGHTS EFFECTIVE ON RECEIPT OF PAYMENT. A PERSON SHOULD NOT RELY ON THIS DOCUMENT UNLESS SATISFIED THAT THE CLAIMANT HAS RECEIVED PAYMENT.

Name of Claimant: _____

Name of Customer: _____

Job Location: _____

Owner: _____

Through Date: _____

Conditional Waiver and Release

This document waives and releases lien, stop payment notice, and payment bond rights the claimant has for labor and service provided, and equipment and material delivered, to the customer on this job through the Through Date of this document. Rights based upon labor or service provided, or equipment or material delivered, pursuant to a written change order that has been fully executed by the parties prior to the date that this document is signed by the claimant, are waived and released by this document, unless listed as an Exception below. This document is effective only on the claimant's receipt of payment from the financial institution on which the following check is drawn:

Maker of Check: _____

Amount of Check: \$ _____

Check Payable to: _____

Exceptions

This document does not affect any of the following:

- (1) Retentions.
- (2) Extras for which the claimant has not received payment.
- (3) The following progress payments for which the claimant has previously given a conditional waiver and release but has not received payment:

Date(s) of waiver and release: _____

Amount(s) of unpaid progress payment(s): \$ _____

PITTSBURG UNIFIED SCHOOL DISTRICT
Highlands Elementary School
Window Replacement In-Kind
PLUM architects

**APPLICATION FOR PAYMENT AND
CONDITIONAL AND UNCONDITIONAL
WAIVER AND RELEASE FORMS**

DOCUMENT 01 29 00-2

- (4) Contract rights, including (A) a right based on rescission, abandonment, or breach of contract, and (B) the right to recover compensation for work not compensated by the payment.

Claimant's Signature: _____

Claimant's Title: _____

Date of Signature: _____

**UNCONDITIONAL WAIVER AND RELEASE
ON PROGRESS PAYMENT
(CIVIL CODE SECTION 8134)**

NOTICE TO CLAIMANT: THIS DOCUMENT WAIVES AND RELEASES LIEN, STOP PAYMENT NOTICE, AND PAYMENT BOND RIGHTS UNCONDITIONALLY AND STATES THAT YOU HAVE BEEN PAID FOR GIVING UP THOSE RIGHTS. THIS DOCUMENT IS ENFORCEABLE AGAINST YOU IF YOU SIGN IT, EVEN IF YOU HAVE NOT BEEN PAID. IF YOU HAVE NOT BEEN PAID, USE A CONDITIONAL WAIVER AND RELEASE FORM.

Name of Claimant: _____

Name of Customer: _____

Job Location: _____

Owner: _____

Through Date: _____

Unconditional Waiver and Release

This document waives and releases lien, stop payment notice, and payment bond rights the claimant has for labor and service provided, and equipment and material delivered, to the customer on this job through the Through Date of this document. Rights based upon labor or service provided, or equipment or material delivered, pursuant to a written change order that has been fully executed by the parties prior to the date that this document is signed by the claimant, are waived and released by this document, unless listed as an Exception below. The claimant has received the following progress payment: \$_____

Exceptions

This document does not affect any of the following:

- (1) Retentions.
- (2) Extras for which the claimant has not received payment.
- (3) Contract rights, including (A) a right based on rescission, abandonment, or breach of contract, and (B) the right to recover compensation for work not compensated by the payment.

Claimant's Signature: _____

Claimant's Title: _____

Date of Signature: _____

PITTSBURG UNIFIED SCHOOL DISTRICT
Highlands Elementary School
Window Replacement In-Kind
PLUM architects

**APPLICATION FOR PAYMENT AND
CONDITIONAL AND UNCONDITIONAL
WAIVER AND RELEASE FORMS**

DOCUMENT 01 29 00-4

**CONDITIONAL WAIVER AND RELEASE
ON FINAL PAYMENT
(CIVIL CODE SECTION 8136)**

NOTICE: THIS DOCUMENT WAIVES THE CLAIMANT'S LIEN, STOP PAYMENT NOTICE, AND PAYMENT BOND RIGHTS EFFECTIVE ON RECEIPT OF PAYMENT. A PERSON SHOULD NOT RELY ON THIS DOCUMENT UNLESS SATISFIED THAT THE CLAIMANT HAS RECEIVED PAYMENT.

Name of Claimant: _____

Name of Customer: _____

Job Location: _____

Owner: _____

Conditional Waiver and Release

This document waives and releases lien, stop payment notice, and payment bond rights the claimant has for labor and service provided, and equipment and material delivered, to the customer on this job. Rights based upon labor or service provided, or equipment or material delivered, pursuant to a written change order that has been fully executed by the parties prior to the date that this document is signed by the claimant, are waived and released by this document, unless listed as an Exception below. This document is effective only on the claimant's receipt of payment from the financial institution on which the following check is drawn:

Maker of Check: _____

Amount of Check: \$ _____

Check Payable to: _____

Exceptions

This document does not affect any of the following: _____

Disputed claims for extras in the amount of: \$ _____

Claimant's Signature: _____

Claimant's Title: _____

Date of Signature: _____

PITTSBURG UNIFIED SCHOOL DISTRICT
Highlands Elementary School
Window Replacement In-Kind
PLUM architects

**APPLICATION FOR PAYMENT AND
CONDITIONAL AND UNCONDITIONAL
WAIVER AND RELEASE FORMS**

DOCUMENT 01 29 00-5

**UNCONDITIONAL WAIVER AND RELEASE
ON FINAL PAYMENT
(CIVIL CODE SECTION 8138)**

NOTICE TO CLAIMANT: THIS DOCUMENT WAIVES AND RELEASES LIEN, STOP PAYMENT NOTICE, AND PAYMENT BOND RIGHTS UNCONDITIONALLY AND STATES THAT YOU HAVE BEEN PAID FOR GIVING UP THOSE RIGHTS. THIS DOCUMENT IS ENFORCEABLE AGAINST YOU IF YOU SIGN IT, EVEN IF YOU HAVE NOT BEEN PAID. IF YOU HAVE NOT BEEN PAID, USE A CONDITIONAL WAIVER AND RELEASE FORM.

Name of Claimant: _____

Name of Customer: _____

Job Location: _____

Owner: _____

Unconditional Waiver and Release

This document waives and releases lien, stop payment notice, and payment bond rights the claimant has for all labor and service provided, and equipment and material delivered, to the customer on this job. Rights based upon labor or service provided, or equipment or material delivered, pursuant to a written change order that has been fully executed by the parties prior to the date that this document is signed by the claimant, are waived and released by this document, unless listed as an Exception below. The claimant has been paid in full.

Exceptions

This document does not affect any of the following: _____

Disputed claims for extras in the amount of: \$_____

Claimant's Signature: _____

Claimant's Title: _____

Date of Signature: _____

PITTSBURG UNIFIED SCHOOL DISTRICT
Highlands Elementary School
Window Replacement In-Kind
PLUM architects

**APPLICATION FOR PAYMENT AND
CONDITIONAL AND UNCONDITIONAL
WAIVER AND RELEASE FORMS**

DOCUMENT 01 29 00-6

PROJECT MEETINGS

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; and
- B. Special Conditions.

1.02 PROGRESS MEETINGS:

- A. Contractor shall schedule and hold regular weekly progress meetings after a minimum of one week's prior written notice of the meeting date and time to all Invitees as indicated below.
- B. Location: Contractor's field office.
- C. The Contractor shall notify and invite the following entities ("Invitees"):
 - (1) District Representative.
 - (2) Contractor.
 - (3) Contractor's Project Manager.
 - (4) Contractor's Superintendent.
 - (5) Subcontractors, as appropriate to the agenda of the meeting.
 - (6) Suppliers, as appropriate to the agenda of the meeting.
 - (7) Construction Manager, if any.
 - (8) Architect
 - (9) Engineer(s), if any and as appropriate to the agenda of the meeting.
 - (10) Others, as appropriate to the agenda of the meeting.
- D. The District's and/or the Architect's Consultants will attend at their discretion, in response to the agenda.

- E. The District representative, the Construction Manager, and/or another District Agent shall take and distribute meeting notes to attendees and other concerned parties. If exceptions are taken to anything in the meeting notes, those exceptions shall be stated in writing to the District within five (5) working days following District's distribution of the meeting notes.

1.03 PRE-INSTALLATION/PERFORMANCE MEETING:

- A. Contractor shall schedule a meeting prior to the start of each of the following portions of the Work: cutting and patching of plaster and roofing, and other weather-exposed and moisture-resistant products. Contractor shall invite all Invitees to this meeting, and others whose work may affect or be affected by the quality of the cutting and patching work.
- B. Contractor shall review in detail prior to this meeting, the manufacturer's requirements and specifications, applicable portions of the Contract Documents, Shop Drawings, and other submittals, and other related work. At this meeting, invitees shall review and resolve conflicts, incompatibilities, or inadequacies discovered or anticipated.
- C. Contractor shall review in detail Project conditions, schedule, requirements for performance, application, installation, and quality of completed Work, and protection of adjacent Work and property.
- D. Contractor shall review in detail means of protecting the completed Work during the remainder of the construction period.

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 being awarded the Contract 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:

<u>ACTIVITY DESCRIPTION</u>	<u>REQUIRED COMPLETION</u>
ON-SITE CONSTRUCTION STARTS	February 11, 2019
ON-SITE CONSTRUCTION COMPLETION	August 02, 2019
FINAL PROJECT COMPLETION	September 06, 2019

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 **Primavera P6 Scheduling** 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 cleanup 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

SUBMITTALS

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, Contractor's Submittals and Schedules, Drawings and Specifications;
- B. Special Conditions.

1.02 SECTION INCLUDES:

- A. Definitions:
 - (1) Shop Drawings and Product Data are as indicated in the General Conditions and include, but are not limited to, fabrication, erection, layout and setting drawings, formwork and falsework drawings, manufacturers' standard drawings, descriptive literature, catalogues, brochures, performance and test data, wiring and control diagrams. In addition, there are other drawings and descriptive data pertaining to materials, equipment, piping, duct and conduit systems, and methods of construction as may be required to show that the materials, equipment or systems and all positions conform to the requirement of the Contract Documents, including, without limitation, the Drawings.
 - (2) "Manufactured" applies to standard units usually mass-produced; "fabricated" means specifically assembled or made out of selected materials to meet design requirements. Shop Drawings shall establish the actual detail of manufactured or fabricated items, indicated proper relation to adjoining work and amplify design details of mechanical and electrical equipment in proper relation to physical spaces in the structure.
 - (3) Manufacturer's Instructions: Where any item of Work is required by the Contract Documents to be furnished, installed, or performed, at a minimum, in accordance with a specified product manufacturer's instructions, the Contractor shall procure and distribute copies of these to the District, the Architect, and all other concerned parties and shall furnish, install, or perform the work, at a minimum, in accordance with those instructions.

- B. Samples, Shop Drawings, Product Data, and other items as specified, in accordance with the following requirements:
- (1) Contractor shall submit all Shop Drawings, Product Data, and Samples to the District, the Architect, the Project Inspector, and the Construction Manager.
 - (2) Contractor shall comply with all time frames herein and in the General Conditions and, in any case, shall submit required information in sufficient time to permit proper consideration and action before ordering any materials or items represented by such Shop Drawings, Product Data, and/or Samples.
 - (3) Contractor shall comply with all time frames herein and in the General Conditions and, in any case, shall allow sufficient time so that no delay occurs due to required lead time in ordering or delivery of any item to the Site. Contractor shall be responsible for any delay in progress of Work due to its failure to observe these requirements.
 - (4) Time for completion of Work shall not be extended on account of Contractor's failure to promptly submit Shop Drawings, Product Data, and/or Samples.
 - (5) Reference numbers on Shop Drawings shall have Architectural and/or Engineering Contract Drawings reference numbers for details, sections, and "cuts" shown on Shop Drawings. These reference numbers shall be in addition to any numbering system that Contractor chooses to use or has adopted as standard.
 - (6) When the magnitude or complexity of submittal material prevents a complete review within the stated time frame, Contractor shall make this submittal in increments to avoid extended delays.
 - (7) Contractor shall certify on submittals for review that submittals conform to Contract requirements. In event of any variance, Contractor shall specifically state in transmittal and on Shop Drawings, portions vary and require approval of a substitute. Also certify that Contractor-furnished equipment can be installed in allocated space.
 - (8) Unless specified otherwise, sampling, preparation of samples, and tests shall be in accordance with the latest standard of the American Society for Testing and Materials.
 - (9) Upon demand by Architect or District, Contractor shall submit samples of materials and/or articles for tests or examinations and consideration before Contractor incorporates same in Work. Contractor shall be solely responsible for delays due to sample(s) not being submitted in time to allow for tests. Acceptance or rejection will be expressed in writing. Work shall be equal to approved samples in every respect. Samples that are of value after testing will remain the property of Contractor.

- C. Submittal Schedule:
- (1) Contractor shall prepare its proposed submittal schedule that is coordinated with the proposed construction schedule and submit both to the District within ten (10) days after the date of the Notice to Proceed. Contractor's proposed schedules shall become the Project Construction Schedule and the Project Submittal Schedule after each is approved by the District.
 - (2) Contractor is responsible for all lost time should the initial submittal be rejected, marked "revise and resubmit", etc.
 - (3) All Submittals shall be forwarded to the District by the date indicated on the approved Submittal Schedule, unless an earlier date is necessary to maintain the Construction Schedule, in which case those Submittals shall be forwarded to the District so as not to delay the Construction Schedule.

1.03 SHOP DRAWINGS:

- A. Contractor shall submit one reproducible transparency and six (6) opaque reproductions. The District will review and return the reproducible copy and one (1) opaque reproduction to Contractor.
- B. Before commencing installation of any Work, the Contractor shall submit and receive approval of all drawings, descriptive data, and material list(s) as required to accomplish Work.
- C. Review of Shop Drawings is regarded as a service to assist Contractor and in all cases original Contract Documents shall take precedence as outlined under General Conditions.
- D. No claim for extra time or payment shall be based on work shown on Shop Drawings unless the claim is (1) noted on Contractor's transmittal letter accompanying Shop Drawings and (2) Contractor has complied with all applicable provisions of the General Conditions, including, without limitation, provisions regarding changes and payment, and all required written approvals.
- E. District shall not review Shop Drawings for quantities of materials or number of items supplied.
- F. District's and/or Architect's review of Shop Drawing will be general. District and/or Architect review does not relieve Contractor of responsibility for dimensions, accuracy, proper fitting, construction of Work, furnishing of materials, or Work required by Contract Documents and not indicated on Shop Drawings. The District's and/or Architect's review of Shop Drawings is not to be construed as approving departures from Contract Documents.
- G. Review of Shop Drawings and Schedules does not relieve Contractor from responsibility for any aspect of those Drawings or Schedules that is a violation

of local, County, State, or Federal laws, rules, ordinances, or rules and regulations of commissions, boards, or other authorities or utilities having jurisdiction.

- H. Before submitting Shop Drawings for review, Contractor shall check Shop Drawings of its subcontractors for accuracy, and confirm that all Work contiguous with and having bearing on other work shown on Shop Drawings is accurately drawn and in conformance with Contract Documents.
- I. Submitted drawings and details must bear stamp of approval of Contractor:
 - (1) Stamp and signature shall clearly certify that Contractor has checked Shop Drawings for compliance with Drawings.
 - (2) If Contractor submits a Shop Drawing without an executed stamp of approval, or whenever it is evident (despite stamp) that Drawings have not been checked, the District and/or Architect will not consider them and will return them to the Contractor for revision and resubmission. In that event, it will be deemed that Contractor has not complied with this provision and Contractor shall bear risk of all delays to same extent as if it had not submitted any Shop Drawings or details.
- J. Submission of Shop Drawings (in either original submission or when resubmitted with correction) constitutes evidence that Contractor has checked all information thereon and that it accepts and is willing to perform Work as shown.
- K. Contractor shall pay for cost of any changes in construction due to improper checking and coordination. Contractor shall be responsible for all additional costs, including coordination. Contractor shall be responsible for costs incurred by itself, the District, the Architect, the Project Inspector, the Construction Manager, any other Subcontractor or contractor, etc., due to improperly checked and/or coordination of submittals.
- L. Shop Drawings must clearly delineate the following information:
 - (1) Project name and address.
 - (2) Specification number and description.
 - (3) Architect's name and project number.
 - (4) Shop Drawing title, number, date, and scale.
 - (5) Names of Contractor, Subcontractor(s) and fabricator.
 - (6) Working and erection dimensions.
 - (7) Arrangements and sectional views.

- (8) Necessary details, including complete information for making connections with other Work.
 - (9) Kinds of materials and finishes.
 - (10) Descriptive names of materials and equipment, classified item numbers, and locations at which materials or equipment are to be installed in the Work. Contractor shall use same reference identification(s) as shown on Contract Drawings.
- M. Contractor shall prepare composite drawings and installation layouts when required to solve tight field conditions.
- (1) Shop Drawings shall consist of dimensioned plans and elevations and must give complete information, particularly as to size and location of sleeves, inserts, attachments, openings, conduits, ducts, boxes, structural interferences, etc.
 - (2) Contractor shall coordinate these composite Shop Drawings and installation layouts in the field between itself and its Subcontractor(s) for proper relationship to the Work, the work of other trades, and the field conditions. The Contractor shall check and approve all submittal(s) before submitting them for final review.

1.04 PRODUCT DATA OR NON REPRODUCIBLE SUBMITTALS:

- A. Contractor shall submit manufacturer's printed literature in original form. Any fading type of reproduction will not be accepted. Contractor must submit a minimum of six (6) each, to the District. District shall return one (1) to the Contractor, who shall reproduce whatever additional copies it requires for distribution.
- B. Contractor shall submit six (6) copies of a complete list of all major items of mechanical, plumbing, and electrical equipment and materials in accordance with the approved Submittal Schedule, except as required earlier to comply with the approved Construction Schedule. Other items specified are to be submitted prior to commencing Work. Contractor shall submit items of like kind at one time in a neat and orderly manner. Partial lists will not be acceptable.
- C. Submittals shall include manufacturer's specifications, physical dimensions, and ratings of all equipment. Contractor shall furnish performance curves for all pumps and fans. Where printed literature describes items in addition to that item being submitted, submitted item shall be clearly marked on sheet and superfluous information shall be crossed out. If highlighting is used, Contractor shall mark all copies.
- D. Equipment submittals shall be complete and include space requirements, weight, electrical and mechanical requirements, performance data, and supplemental information that may be requested.

- E. Imported Materials Certification must be submitted at least ten (10) days before material is delivered.

1.05 SAMPLES:

- A. Contractor shall submit for approval Samples as required and within the time frame in the Contract Documents. Materials such as concrete, mortar, etc., which require on-site testing will be obtained from Project Site.
- B. Contractor shall submit four (4) samples except where greater or lesser number is specifically required by Contract Documents including, without limitation, the Specifications.
 - (1) Samples must be of sufficient size and quality to clearly illustrate functional characteristics, with integrally related parts and attachment devices.
 - (2) Samples must show full range of texture, color, and pattern.
- C. Contractor shall make all Submittals, unless it has authorized Subcontractor(s) to submit and Contractor has notified the District in writing to this effect.
- D. Samples to be shipped prepaid or hand-delivered to the District.
- E. Contractor shall mark samples to show name of Project, name of Contractor submitting, Contract number and segment of Work where representative Sample will be used, all applicable Specifications Sections and documents, Contract Drawing Number and detail, and ASTM or FS reference, if applicable.
- F. Contractor shall not deliver any material to Site prior to receipt of District's and/or Architect's completed written review and approval. Contractor shall furnish materials equal in every respect to approved Samples and execute Work in conformance therewith.
- G. District's and/or Architect's review, acceptance, and/or approval of Sample(s) will not preclude rejections of any material upon discovery of defects in same prior to final acceptance of completed Work.
- H. After a material has been approved, no change in brand or make will be permitted.
- I. Contractor shall prepare its Submittal Schedule and submit Samples of materials requiring laboratory tests to specified laboratory for testing not less than ninety (90) days before such materials are required to be used in Work.
- J. Samples which are rejected must be resubmitted promptly after notification of rejection and be marked "Resubmitted Sample" in addition to other information required.

- K. Field Samples and Mock-Ups are to be removed by Contractor at District's direction:
 - (1) Size: As Specified.
 - (2) Furnish catalog numbers and similar data, as requested.

1.06 REVIEW AND RESUBMISSION REQUIREMENTS:

- A. The District will arrange for review of Sample(s), Shop Drawing(s), Product Data, and other submittal(s) by appropriate reviewer and return to Contractor as provided below within twenty-one (21) days after receipt or within twenty-one (21) days after receipt of all related information necessary for such review, whichever is later.
- B. One (1) copy of product or materials data will be returned to Contractor with the review status.
- C. Samples to be incorporated into the Work will be returned to Contractor, together with a written notice designating the Sample with the appropriate review status and indicating errors discovered on review, if any. Other Samples will not be returned, but the same notice will be given with respect thereto, and that notice shall be considered a return of the Sample.
- D. Contractor shall revise and resubmit any Sample(s), Shop Drawing(s), Product Data, and other submittal(s) as required by the reviewer. Such resubmittals will be reviewed and returned in the same manner as original Sample(s), Shop Drawing(s), Product Data, and other submittal(s), within fourteen (14) days after receipt thereof or within fourteen (14) days after receipt of all related information necessary for such review. Such resubmittal shall not delay the Work.
- E. Contractor may proceed with any of the Work covered by Sample(s), Shop Drawing(s), Product Data, and other submittal(s) upon its return if designated as no exception taken, or revise as noted, provided the Contractor proceeds in accordance with the District and/or the Architect's notes and comments.
- F. Contractor shall not begin any of the work covered by a Sample(s), Shop Drawing(s), Product Data, and other submittal(s), designated as revise and resubmit or rejected, until a revision or correction thereof has been reviewed and returned to Contractor.
- G. Sample(s), Shop Drawing(s), Product Data, and other submittal(s) designated as revise and resubmit or rejected and requiring resubmittal, shall be revised or corrected and resubmitted to the District no later than fourteen (14) days or a shorter period as required to comply with the approved Construction Schedule, after its return to Contractor.
- H. Neither the review nor the lack of review of any Sample(s), Shop Drawing(s), Product Data, and other submittal(s) shall waive any of the requirements of the Contract Documents, or relieve Contractor of any obligation thereunder.

- I. District's and/or Architect's review of Shop Drawings does not relieve the Contractor of responsibility for any errors that may exist. Contractor is responsible for the dimensions and design of adequate connections and details and for satisfactory construction of all the Work.

PART 2 – PRODUCTS Not Used.

PART 3 - EXECUTION Not Used.

END OF DOCUMENT

SITE STANDARDS

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 Regulations;
- B. Special Conditions;
- C. Drug-Free Workplace Certification;
- D. Tobacco-Free Environment Certification;
- E. Criminal Background Investigation/Fingerprinting Certification;
- F. Temporary Facilities and Controls.

1.02 REQUIREMENTS OF THE DISTRICT:

- A. Drug-Free Schools and Safety Requirements:
 - (1) All school sites and other District Facilities have been declared "Drug-Free Zones." No drugs, alcohol and/or smoking are allowed at any time in any buildings and/or grounds on District property. No students, staff, visitors, or contractors are to use drugs on these sites.
 - (2) Smoking and the use of tobacco products by all persons is prohibited on or in District property. District property includes school buildings, school grounds, school-owned vehicles and vehicles owned by others while on District property. Contractor shall post: "Non-Smoking Area" in a highly visible location in each work area, staging area, and parking area. Contractor may designate a smoking area outside of District property within the public right-of-way, provided that this area remains quiet and unobtrusive to adjacent neighbors. This smoking area is to be kept clean at all times.
 - (3) Contractor shall ensure that no alcohol, firearms, weapons, or controlled substances enter or are used at the Site. Contractor shall immediately remove from the Site and terminate the employment of any employee(s) found in violation of this provision.

- B. Language: Profanity or other unacceptable and/or loud language will not be tolerated, "Cat calls" or other derogatory language toward students, staff, volunteers, parents or public will not be allowed.
- C. Disturbing the Peace (Noise and Lighting):
 - (1) Contractor shall observe the noise ordinance of the Site at all times including, without limitation, all applicable local, city, and/or state laws, ordinances, and/or regulations regarding noise and allowable noise levels.
 - (2) The use of radios, etc., shall be controlled to keep all sound at a level that cannot be heard beyond the immediate area of use. District reserves the right to prohibit the use of radios at the Site, except for mobile phones or other handheld communication radios.
 - (3) If portable lights are used after dark, all light must be located so as not to direct light into neighboring property.
- D. Traffic:
 - (1) Driving on the Premises shall be limited to periods when students and public are not present. If driving or deliveries must be made during the school hours, two (2) or more ground guides shall lead the vehicle across the area of travel. In no case shall driving take place across playgrounds or other pedestrian paths during recess, lunch, and/or class period changes. The speed limit on-the Premises shall be five (5) miles per hour (maximum) or less if conditions require.
 - (2) All paths of travel for deliveries, including without limitation, material, equipment, and supply deliveries, shall be reviewed and approved by District in advance. Any damage will be repaired to the pre-damaged condition by the Contractor.
 - (3) District shall designate a construction entry to the Site. If Contractor requests, District determines it is required, and to the extent possible, District shall designate a staging area so as not to interfere with the normal functioning of school facilities. Location of gates and fencing shall be approved in advance with District and at Contractor's expense.
 - (4) Parking areas shall be reviewed and approved by District in advance. No parking is to occur under the drip line of trees or in softscape areas that could otherwise be damaged.
- E. All of the above shall be observed and complied with by the Contractor and all workers on the Site. Failure to follow these directives could result in individual(s) being suspended or removed from the work force at the discretion of the District. The same rules and regulations shall apply equally to delivery personnel, inspectors, consultants, and other visitors to the Site.

PART 2 - PRODUCTS Not Used.

PART 3 - EXECUTION Not Used.

END OF DOCUMENT

REGULATORY REQUIREMENTS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS AND PROVISIONS:

All Contract Documents should be reviewed for applicable provisions related to the provisions in this document, including without limitation:

- A. General Conditions, including, without limitation, Obtaining of Permits, Licenses and Registrations and Work to Comply with All Applicable Laws and Regulations;
- B. Special Conditions; and
- C. Quality Control.

1.02 DESCRIPTION:

This section covers the general requirements for regulatory requirements pertaining to the Work and is supplementary to all other regulatory requirements mentioned or referenced elsewhere in the Contract Documents.

1.03 REQUIREMENTS OF REGULATORY AGENCIES:

- A. All statutes, ordinances, laws, rules, codes, regulations, standards, and the lawful orders of all public authorities having jurisdiction over the Work, are hereby incorporated into these Contract Documents as if repeated in full herein and are intended to be included in any reference to Code or Building Code, unless otherwise specified, including, without limitation, the references in the list below. Contractor shall make available at the Site copies of all the listed documents applicable to the Work as the District and/or Architect may request, including, without limitation, applicable portions of the California Code of Regulations ("CCR").
 - (1) Building Standards Administrative Code, Part 1, Title 24, CCR.
 - (2) California Building Code (CBC), Part 2, Title 24, CCR; (Uniform Building code volumes 1-3 and California Amendments).
 - (3) California Electrical Code (CEC), Part 3, Title 24, CCR; (National Electrical Code and California Amendments).
 - (4) California Mechanical Code (CMC), Part 4, Title 24, CCR; (Uniform Mechanical Code and California Amendments).
 - (5) California Plumbing Code (CPC), Part 5, Title 24, CCR; (Uniform Plumbing Code and California Amendments).

- (6) California Fire Code (CFC), Part 9, Title 24, CCR; (Fire Plumbing Code and California Amendments).
- (7) California Referenced Standards Code, Part 12, Title 24, CCR.
- (8) State Fire Marshal Regulations, Public Safety, Title 19, CCR.
- (9) Partial List of Applicable National Fire Protection Association (NFPA) Standards:
 - (a) NFPA 13 - Automatic Sprinkler System.
 - (b) NFPA 14 - Standpipes Systems.
 - (c) NFPA 17A - Wet Chemical System
 - (d) NFPA 24 - Private Fire Mains.
 - (e) (California Amended) NFPA 72 - National Fire Alarm Codes.
 - (f) NFPA 253 - Critical Radiant Flux of Floor Covering System.
 - (g) NFPA 2001 - Clean Agent Fire Extinguishing Systems.
- (10) California Division of the State Architect interpretation of Regulations ("DSA IR"), including, without limitation:
 - (a) DSA IR A-6 — Construction Change Document Submittal and Approval Processes.
 - (b) DSA IR A-7 — Project Inspector Certification and Approval.
 - (c) DSA IR A-8 — Project Inspector and Assistant Inspector Duties and Performance.
 - (d) DSA IR A-12 — Assistant Inspector Approval.
- (11) DSA Procedures ("DSA PR")
 - (a) DSA PR 13-01 – Construction Oversight Process
 - (b) DSA PR 13-02 – Project Certification Process

B. This Project shall be governed by applicable regulations, including, without limitation, the State of California's Administrative Regulations for the Division of the State Architect-Structural Safety (DSA/SS), Chapter 4, Part 1, Title 24, CCR, and the most current version on the date the bids are opened and as it pertains to school construction including, without limitation:

- (1) Test and testing laboratory per Section 4-335. District shall pay for the testing laboratory.

- (2) Special inspections per Section 4-333(c).
- (3) Deferred Approvals per section 4-317(g).
- (4) Verified reports per Sections 4-365 & 4-343(c).
- (5) Duties of the Architect & Engineers shall be per Sections 4-333(a) and 4-341.
- (6) Duties of the Contractor shall be per Section 4-343.
- (7) Duties of Project Inspector shall be per Section 4-334.
- (8) Addenda and Construction Changes per Section 4-338.

Contractor shall keep and make available a copy of Part 1 and 2 of the most current version of Title 24 at the Site during construction.

- C. Items of deferred approval shall be clearly marked on the first sheet of the Architect's and/or Engineer's approved Drawings. All items later submitted for approval shall be per Title 24 requirements to the DSA.
- (1) Contractor shall submit the following to Architect for review and endorsement:
 - (a) Product information on proposed material/system supplier.
 - (b) Drawings, specifications, and calculations prepared, signed, and stamped by an architect or engineer licensed in the State of California for that portion of the Work.
 - (c) All other requirements as may be required by DSA.
 - (2) Cost of preparing and submitting documentation per DSA Deferred Approval requirements including required modifications to Drawings and Specifications, whether or not indicated in the Contract Documents, shall be borne by Contractor.
 - (3) Contractor shall not begin fabrication and installation of deferred approval items without first obtaining DSA approval of Drawings and Specifications.
 - (4) Schedule of Work Subject to DSA Deferred Approval: Window wall systems exceeding 10 feet in span.

PART 2 – PRODUCTS Not Used.

PART 3 – EXECUTION Not Used.

END OF DOCUMENT

ABBREVIATIONS AND ACRONYMS

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, Definitions;
- B. Special Conditions.

1.02 DOCUMENT INCLUDES:

- A. Abbreviations used throughout the Contract Documents.
- B. Reference to a technical society, organization, or body is by abbreviation, as follows:

1.	AA	The Aluminum Association
2.	AAMA	American Architectural Manufacturers Association
3.	AASHTO	American Association of State Highway and Transportation Officials
4.	ABPA	Acoustical and Board Products Association
5.	ACI	American Concrete Institute
6.	AGA	American Gas Association
7.	AGC	Associated General Contractors of America
8.	AHC	Architectural Hardware Consultant
9.	AI	Asphalt Institute
10.	AIA	American Institute of Architects
11.	AIEE	American Institute of Electrical Engineers
12.	AISC	American Institute of Steel Construction
13.	AISI	American Iron and Steel Institute
14.	AMCA	Air Moving and Conditioning Association
15.	ANSI	American National Standards Institute
16.	APA	American Plywood Association
17.	ARI	Air Conditioning and Refrigeration Institute
18.	ASHRAE	American Society of Heating, Refrigeration and Air Conditioning Engineers
19.	ASME	American Society of Mechanical Engineers
20.	ASSE	American Society of Structural Engineers
21.	ASTM	American Society of Testing and Materials
22.	AWPB	American Wood Preservers Bureau
23.	AWPI	American Wood preservers Institute
24.	AWS	American Welding Society
25.	AWSC	American Welding Society Code
26.	AWI	Architectural Woodwork Institute

27.	AWWA	American Water Works Association
28.	BIA	Brick Institute of America
29.	CCR	California Code of Regulations
30.	CLFMI	Chain Link Fence Manufacturers Institute
31.	CMG	California Masonry Guild
32.	CRA	California Redwood Association
33.	CRSI	Concrete Reinforcing Steel Institute
34.	CS	Commercial Standards
35.	CSI	Construction Specifications Institute
36.	CTI	Cooling Tower Institute
37.	FGMA	Flat Glass Manufacturer's Association
38.	FIA	Factory Insurance Association
39.	FM	Factory Mutual
40.	FS	Federal Specification
41.	FTI	Facing Title Institute
42.	GA	Gypsum Association
43.	ICC	International Code Council
44.	IEEE	Institute of Electrical and Electronic Engineers
45.	IES	Illumination Engineering Society
46.	LIA	Lead Industries Association
47.	MIA	Marble Institute of America
48.	MLMA	Metal Lath Manufacturers Association
49.	MS	Military Specifications
50.	NAAMM	National Association of Architectural Metal Manufacturers
51.	NBHA	National Builders Hardware Association
52.	NBFU	National Board of Fire Underwriters
53.	NBS	National Bureau of Standards
54.	NCMA	National Concrete Masonry Association
55.	NEC	National Electrical Code
56.	NEMA	National Electrical Manufacturers Association
57.	NFPA	National Fire Protection Association/National Forest Products Association
58.	NMWIA	National Mineral Wool Insulation Association
59.	NTMA	National Terrazzo and Mosaic Association
60.	NWMA	National Woodwork Manufacturer's Association
61.	ORS	Office of Regulatory Services (California)
62.	OSHA	Occupational Safety and Health Act
63.	PCI	Precast Concrete Institute
64.	PCA	Portland Cement Association
65.	PDCA	Painting and Decorating Contractors of America
66.	PDI	Plumbing Drainage Institute
67.	PEI	Porcelain Enamel Institute
68.	PG&E	Pacific Gas & Electric Company
69.	PS	Product Standards
70.	SDI	Steel Door Institute; Steel Deck Institute
71.	SJI	Steel Joist Institute
72.	SSPC	Steel Structures Painting Council
73.	TCA	Tile Council of America
74.	TPI	Truss Plate Institute
75.	UBC	Uniform Building Code

76.	UL	Underwriters Laboratories Code
77.	UMC	Uniform Mechanical Code
78.	USDA	United States Department of Agriculture
79.	VI	Vermiculite Institute
80.	WCLA	West Coast Lumberman's Association
81.	WCLB	West Coast Lumber Bureau
82.	WEUSER	Western Electric Utilities Service Engineering Requirements
83.	WIC	Woodwork Institute of California
84.	WPOA	Western Plumbing Officials Association

PART 2 - PRODUCTS Not Used.

PART 3 - EXECUTION Not Used.

END OF DOCUMENT

DEFINITIONS

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, Definitions;
- B. Special Conditions.

1.02 QUALITY ASSURANCE

- A. For products or workmanship specified by association, trade, or Federal Standards, Contractor shall comply with requirements of the standard, except when more rigid requirements are specified in the Contract Documents, or are required by applicable codes.
- B. Contractor shall conform to current reference standard publication date in effect on the date of bid opening.
- C. Contractor shall obtain copies of standards unless specifically required not to by the Contract Documents.
- D. Contractor shall maintain a copy of all standards at jobsite during submittals, planning, and progress of the specific Work, until final completion, unless specifically required not to by the Contract Documents.
- E. Should specified reference standards conflict with Contract Documents, Contractor shall request clarification from the District and/or the Architect before proceeding.
- F. The contractual relationship of the parties to the Contract shall not be altered from the contractual relationship as indicated in the Contract Documents by mention or inference otherwise in any referenced document.
- G. Governing Codes shall be as shown in the Contract Documents including, without limitation, the Specifications.

END OF DOCUMENT

REFERENCES**PART 1 - GENERAL****1.01 SCHEDULE OF REFERENCES:**

The following information is intended only for the general assistance of the Contractor, and the District does not represent that all of the information is current. It is the Contractor's responsibility to verify the correct information for each of the entities listed.

AA	The Aluminum Association 1400 Crystal Drive, Suite 430 Arlington, VA 22202 www.aluminum.org	703/358-2960
AABC	Associated Air Balance Council 1518 K Street, NW, Suite 503 Washington, DC 20005 www.aabc.com	202/737-0202
AAMA	American Architectural Manufacturers Association 1827 Walden Office Sq., Suite 550 Schaumburg, IL 60173-4268 www.aamanet.org	847/303-5664
AASHTO	American Association of State Highway and Transportation Officials 444 N Capitol St. NW - Suite 249 Washington, DC 20001 www.transportation.org	202/624-5800
AATCC	American Association of Textile Chemists and Colorists P.O. Box 12215 One Davis Drive Research Triangle Park, NC 27709 2215 www.aatcc.org	919/549-8141
ACA	American Coatings Association 1500 Rhode Island Ave., NW Washington DC, 20005 www.paint.org	202/462-6272

ACI	American Concrete Institute 38800 Country Club Dr. Farmington Hills, MI 48331-3439 www.concrete.org	248/848-3700
ACPA	American Concrete Pipe Association 8445 Freeport Parkway, Suite 350 Irving, TX 75063-2595 www.concrete-pipe.org	972/506-7216
ADC	Air Duct Council 1901 N. Roselle Road, Suite 800 Schaumburg, Illinois 60195 www.flexibleduct.org	847/706-6750
AF&PA	American Forest and Paper Association 1101 K Street, NW, Suite 700 Washington, DC 20005 www.afandpa.org	202/463-2700
AGA	American Gas Association 400 North Capitol Street, NW Washington, DC 20001 www.aga.org	202/824-7000
AGC	Associate General Contractors of America 2300 Wilson Blvd., Suite 300 Arlington, VA 22201 www.agc.org	703/548-3118
AHA	American Hardboard Association 1210 West Northwest Highway Palatine, IL 60067 domensino.com/AHA/default.htm	847/934-8800
AI	Asphalt Institute 2696 Research Park Drive Lexington, KY 40511-8480 www.asphaltinstitute.org	859/288-4960
AIA	The American Institute of Architects 1735 New York Ave., NW Washington, DC 20006-5292 www.aia.org	202/626-7300
AISC	American Institute of Steel Construction 130 East Randolph Street Suite 2000 Chicago, IL 60601 www.aisc.org	312.670.2400

AIA	American Insurance Association (formerly the National Board of Fire Underwriters) 555 12th St, NW, Suite 550 Washington DC 20004 www.aiadc.org	202/828-7100
AISI	American Iron and Steel Institute 25 Massachusetts Ave., NW, Suite 800 Washington, DC 20001 www.steel.org	202/452.7100
AITC	American Institute of Timber Construction 7012 S. Revere Parkway Suite 140 Centennial, CO 80112 www.aitc-glulam.org	503/639.0651
ALI	Associated Laboratories, Inc. P.O. Box 152837 Dallas, TX 75315 www.assoc-labs.com	214/565-0593
ALSC	American Lumber Standards Committee, Inc. 7470 New Technology Way, Suite F Frederick, MD 21703 www.alsc.org	301/972-1700
AMCA	Air Movement and Control Association International, Inc. 30 W. University Drive Arlington Heights, IL 60004 www.amca.org	847/394-0150
ANLA	American Nursery & Landscape Association (now AmericanHort) 525 9 th St NW, Suite 80 Washington, DC 20004 www.americanhort.org	202/789-2900
ANSI	American National Standards Institute 1899 L Street, NW, 11th Floor Washington, DC, 20036 www.ansi.org	202/293.8020
APA	APA-The Engineered Wood Association 7011 S. 19th Street Tacoma, WA 98466-5333 www.apawood.org	253/565-6600

APA	Architectural Precast Association 325 John Know Rd, Ste L103 Tallahassee, FL 32303 www.archprecast.org	850/205.5637
ARI	Air Conditioning and Refrigeration Institute (now Air-Conditioning, Heating, & Refrigeration Institute) 2111 Wilson Blvd, Suite 500 Arlington, VA 22201 www.ahrinet.org	703/524-8800
ARMA	Asphalt Roofing Manufacturers Association Public Information Department 750 National Press Building 529 14th Street, NW Washington, DC 20045 www.asphaltroofing.org	202/591-2450
ASA	The Acoustical Society of America ASA Office Manager Suite 1N01 2 Huntington Quadrangle Melville, NY 11747-4502 http://asa.aip.org	516/576-2360
ASCE	American Society of Civil Engineers 1801 Alexander Bell Drive Reston, VA 20191 www.asce.org	800/548-2723 703/295-6300
ASHRAE	American Society of Heating, Refrigerating and Air Conditioning Engineers 1791 Tullie Circle, NE Atlanta, GA 30329-2305 www.ashrae.org	800/527-4723 404/636-8400
ASLA	American Society of Landscape Architects 636 Eye Street, NW Washington, DC 20001-3736 www.asla.org	202/898-2444
ASME	American Society of Mechanical Engineers Three Park Avenue New York, NY 10016-5990 www.asme.org	800/434-2763

ASPE	American Society of Plumbing Engineers 2980 S River Rd. Des Plaines, IL 60018 http://aspe.org	847/296-0002
ASQ	American Society for Quality P.O. Box 3005 Milwaukee, WI 53201-3005 or 600 North Plankinton Avenue Milwaukee, WI 53203 http://asq.org	800/248-1946 414/272-8575
ASSE	American Society of Sanitary Engineering 901 Canterbury, Suite A Westlake, Ohio 44145 www.asse-plumbing.org	440/835-3040
ASTM	ASTM International 100 Barr Harbor Drive PO Box C700 West Conshohocken, PA, 19428-2959 www.astm.org	610/832-9500
AWCI	Association of the Wall and Ceiling Industry 513 West Broad Street, Suite 210 Falls Church, VA 22046 www.awci.org	703/538-1600
AWPA	American Wood Protection Association P.O. Box 361784 Birmingham, AL 35236-1784 www.awpa.com	205/733-4077
AWPI	American Wood Preservers Institute 2750 Prosperity Ave. Suite 550 Fairfax, VA 22031-4312 www.arcata.com	800/356-AWPI 703/204-0500
AWS	American Welding Society 8669 Doral Boulevard, Suite 130 Doral, Florida 33166 www.aws.org	800/443-9353 305/443-9353
AWI	Architectural Woodwork Institute 46179 Westlake Drive, Suite 120 Potomac Falls, VA 20165-5874 www.awinet.org	571/323-3636

AWWA	American Water Works Association 6666 West Quincy Avenue Denver, CO 80235 www.awwa.org	800/926-7337 303/794 7711
BHMA	Builders Hardware Manufacturers Association 355 Lexington Avenue, 15th floor New York, NY 10017 www.buildershardware.com	212/297-2122
BIA	The Brick Industry Association 1850 Centennial Park Drive, Suite 301 Reston, VA 20191 www.gobrick.com	703/620-0010
CGA	Compressed Gas Association 14501 George Carter Way, Suite 103 Chantilly VA 20151-2923 www.cganet.com	703/788-2700
CISCA	Ceilings & Interior Systems Construction Association 1010 Jorie Blvd, Suite 30 Oak Brook, IL 60523 www.cisca.org	630/584-1919
CISPI	Cast Iron Soil Pipe Institute 1064 Delaware Avenue SE Atlanta, GA 30316 www.cispi.org	404/622-0073
CLFMI	Chain Link Fence Manufacturers Institute 10015 Old Columbia Road, Suite B-215 Columbia, MD 21046 www.associationsites.com/main-pub.cfm?usr=clfma	410/290-6267
CPA	Composite Panel Association 19465 Deerfield Avenue, Suite 306 Leesburg, VA 20176 www.compositepanel.org	703/724-1128
CPSC	Consumer Product Safety Commission 4330 East West Highway Bethesda, MD 20814 www.cpsc.gov	301/504-7923 800/638-2772
CRA	California Redwood Association 405 Enfrente Drive, Suite 200 Novato, CA 94949 www.calredwood.org	415/382-0662

CRI	Carpet and Rug Institute P.O. Box 2048 Dalton, Georgia 30722-2048 www.carpet-rug.org	706/278-3176
CRSI	Concrete Reinforcing Steel Institute 933 N. Plum Grove Road Schaumburg, IL 60173 4758 www.crsi.org	847/517-1200
CSI	The Construction Specifications Institute 110 South Union Street, Suite 100 Alexandria VA 22314 www.csinet.org	800/689-2900
CTIOA	Ceramic Tile Institute of America 12061 Jefferson Blvd. Culver City, CA 90230-6219 www.ctioa.org	310/574-7800
DHI	Door and Hardware Institute (formerly National Builders Hardware Association) 14150 Newbrook Dr. Chantilly, VA 20151 www.dhi.org	703/222-2010
DIPRA	Ductile Iron Pipe Research Association 2000 2nd Avenue, South Suite 429 Birmingham, AL 35233 www.dipra.org	205/402-8700
DOC	U.S. Department of Commerce 1401 Constitution Ave., NW Washington, D.C. 20230 www.commerce.gov	202/482-2000
DOT	U.S. Department of Transportation 1200 New Jersey Avenue, SE Washington, DC 20590 www.dot.gov	855/368-4200
EJMA	Expansion Joint Manufacturers Association, Inc. 25 North Broadway Tarrytown, NY 10591 www.ejma.org	914/332-0040

EPA	Environmental Protection Agency Ariel Rios Building 1200 Pennsylvania Avenue, N.W. Washington, DC 20460 www.epa.gov	202/272-0167
FCICA	Floor Covering Installation Contractors Association 7439 Millwood Drive West Bloomfield, MI 48322 www.fcica.com	248/661-5015 877/TO-FCICA
FM Global	Factory Mutual Insurance Company Amy Daley Global Practice Leader – Education, Public Entities, Health Care FM Global 270 Central Avenue Johnston, RI 02919-4949 www.fmglobal.com	401/275-3000 401/275-3029
FS	General Services Administration (GSA) Index of Federal Specifications, Standards and Commercial Item Descriptions 470 East L'Enfant Plaza, SW, Suite 8100 Washington, DC 20407 www.gsa.gov	202/619-8925
GA	The Gypsum Association 6525 Belcrest Road, Suite 480 Hyattsville, MD 20782 www.gypsum.org	301/277-8686
GANA	Glass Association of North America 800 SW Jackson St., Suite 1500 Topeka, KS 66612-1200 www.glasswebsite.com	785/271-0208
HMA	Hardwood Manufacturers Association 665 Rodi Road, Suite 305 Pittsburgh, PA 15235 http://hmamembers.org	412/244-0440
HPVA	Hardwood Plywood & Veneer Association 1825 Michael Faraday Drive Reston, Virginia 20190 www.hpva.org	703/435-2900

IAPMO	International Association of Plumbing and Mechanical Officials (formerly the Western Plumbing Officials Association) 4755 E. Philadelphia St. Ontario, CA 91761 www.iapmo.org	909/472-4100
ICC	International Code Council 500 New Jersey Avenue, NW, 6th Floor Washington, DC 20001 www.iccsafe.org	888/422-7233
IEEE	Institute of Electrical and Electronics Engineers 3 Park Avenue, 17th Floor New York, NY 10016-5997 www.ieee.org	212/419-7900
IES	Illuminating Engineering Society 120 Wall Street, Floor 17 New York, NY 10005-4001 www.ies.org	212/248-5000
ITRK	Intertek Testing Services 3933 US Route 11 Cortland, NY 13045 www.intertek.com	607/753-6711
MCAA	Mechanical Contractors Association of America 1385 Piccard Drive Rockville, MD 20850 www.mcaa.org	301/869-5800
MIA	Marble Institute of America 28901 Clemens Rd, Ste 100 Cleveland, OH 44145 www.marble-institute.com	440/250-9222
MMPA (formerly WMMPA)	Moulding & Millwork Producers Association (formerly Wood Moulding & Millwork Producers Association) 507 First Street Woodland, CA 95695 www.wmmpa.com	530/661-9591 800/550-7889

MSS	Manufacturers Standardization Society (MSS) of the Valve and Fittings Industry 127 Park Street, NE Vienna, VA 22180-4602 http://mss-hq.org	703/281-6613
NAAMM	National Association of Architectural Metal Manufacturers 800 Roosevelt Rd. Bldg. C, Suite 312 Glen Ellyn, IL 60137 www.naamm.org	630/942-6591
NAIMA	North American Insulation Manufacturers Association 44 Canal Center Plaza, Suite 310 Alexandria, VA 22314 www.naima.org	703/684-0084
NAPA	National Asphalt Pavement Association 5100 Forbes Blvd. Lanham, MD USA 20706-4407 www.asphaltpavement.org	888/468-6499 301/731-4748
NCSPA	National Corrugated Steel Pipe Association 14070 Proton Road, Suite 100 LB9 Dallas, TX 75244 www.ncspa.org	972/850-1907
NCMA	National Concrete Masonry Association 13750 Sunrise Valley Drive Herndon, VA 20171-4662 www.ncma.org	703/713-1900
NEBB	National Environmental Balancing Bureau 8575 Grovemont Circle Gaithersburg, MD 20877 www.nebb.org	301/977-3698
NECA	National Electrical Contractors Association 3 Bethesda Metro Center, Suite 1100 Bethesda, MD 20814 www.necanet.org	301/657-3110
NEMA	National Electrical Manufacturers Association 1300 North 17th Street, Suite 1752 Rosslyn, Virginia 22209 www.nema.org	703/841-3200

NEII	National Elevator Industry, Inc. 1677 County Route 64 P.O. Box 838 Salem, New York 12865-0838 www.neii.org	518/854-3100
NFPA	National Fire Protection Association 1 Batterymarch Park Quincy, Massachusetts USA 02169-7471 www.nfpa.org	617/770-3000
NHLA	National Hardwood Lumber Association PO Box 34518 Memphis, TN 38184 www.nhla.com	901/377-1818
NIA	National Insulation Association 12100 Sunset Hills Road, Suite 330 Reston, VA 20190 www.insulation.org	703/464-6422
NRCA	National Roofing Contractors Association 10255 W. Higgins Road, Suite 600 Rosemont, IL 60018-5607 www.nrca.net	847/299-9070
NSF	NSF International P.O. Box 130140 789 N. Dixboro Road Ann Arbor, MI 48113-0140, USA www.nsf.org	800/673-6275 734/769-8010
NTMA	National Terrazzo and Mosaic Association PO Box 2605 Fredericksburg, TX 78624 www.ntma.com	800/323-9736
OSHA	Occupational Safety and Health Act U.S. Department of Labor Occupational Safety & Health Administration 200 Constitution Ave., NW Washington, D.C. 20210 www.osha.gov	800/321-OSHA (6742)

PCA	Portland Cement Association 5420 Old Orchard Road Skokie, IL 60077 or 500 New Jersey Ave., N.W. 7 th Floor Washington, D.C. 20001 www.cement.org	847/966-6200 202/408-9494
PCI	Precast/Prestressed Concrete Institute 200 W. Adams St. #2100 Chicago, IL 60606 www.pci.org	312/786-0300
PDCA	Painting and Decorating Contractors of America 2316 Millpark Drive, Ste 220 Maryland Heights, MO 63043 www.pdca.com	800/332-PDCA (7322) 314/514-7322
PDI	Plumbing & Drainage Institute 800 Turnpike Street, Suite 300 North Andover, MA 01845 http://pdionline.org	978/557-0720 800/589-8956
PEI	Porcelain Enamel Institute, Inc. P.O. Box 920220 Norcross, GA 30010 www.porcelainenamel.com	770/676-9366
PG&E	Pacific Gas & Electric Company www.pge.com	800/743-5000
PLANET	Professional Landcare Network 950 Herndon Parkway, Suite 450 Herndon, Virginia 20170 www.landcarenetwork.org	703/736-9666 800/395-2522 703/736-9668
RFCI	Resilient Floor Covering Institute 115 Broad Street, Suite 201 La Grange GA 30240 www.rfci.com	706/882-3833
RIS	Redwood Inspection Service 818 Grayson Road, Suite 201 Pleasant Hill, CA 94523 www.redwoodinspection.com	925/935-1499
SDI	Steel Deck Institute P.O. Box 25 Fox River Grove, IL 60021 www.sdi.org	847/458-4647

SDI	Steel Door Institute 30200 Detroit Road Westlake, Ohio 44145 www.steeldoor.org	440/899-0010
SJI	Steel Joist Institute 234 W. Cheves Street Florence, SC 29501 http://steeljoist.org	843/407-4091
SMA	Stucco Manufacturers Association 500 East Yale Loop Irvine, CA 92614 www.stuccomfgassoc.com	949/387.7611
SMACNA	Sheet Metal and Air Conditioning Contractors' National Association 4201 Lafayette Center Drive Chantilly, Virginia 20151-1219 www.smacna.org	703/803-2980
SPI	SPI: The Plastics Industry Trade Association, Inc. 1667 K St., NW, Suite 1000 Washington, DC 20006 www.plasticsindustry.org	202/974-5200
SSPC	Society for Protective Coatings (formerly the Steel Structures Painting Council) 40 24th St 6th Fl Pittsburgh, PA 15222 www.sspc.org	412/281-2331 877/281-7772
TCA	The Tile Council of North America 100 Clemson Research Blvd. Anderson, SC 29625 www.tcnatile.com	864/646-8453
TPI	Truss Plate Institute 218 North Lee Street, Suite 312 Alexandria, VA 22314 www.tpinst.org	703/683-1010
TPI	Turfgrass Producers International 2 East Main Street East Dundee, IL 60118 www.turfgrasssod.org	800/405-8873 847/649-5555

TCIA	Tree Care Industry Association (formerly the National Arborist Association) 136 Harvey Road, Suite 101 Londonderry, NH 03053 www.tcia.org	800/733-2622
TVI	The Vermiculite Institute c/o The Schundler Company 150 Whitman Avenue Edison, NJ. 08817 www.vermiculiteinstitute.org	732/287-2244
UL	Underwriters Laboratories Inc. 333 Pfingsten Road Northbrook, IL 60062-2096 www.ul.com	847/272-8800 877/854-3577
UNI	Uni-Bell PVC Pipe Association 2711 LBJ Freeway, Suite 1000 Dallas, TX 75234 www.uni-bell.org	972/243-3902
USDA	U.S. Department of Agriculture 1400 Independence Ave., S.W. Washington, DC 20250 www.usda.gov	202/720-2791
WA	Wallcoverings Association 401 North Michigan Avenue Suite 2200 Chicago, IL 60611 www.wallcoverings.org	312/321-5166

WCLIB	West Coast Lumber Inspection Bureau P.O. Box 23145 Portland, OR 97281 or 6980 S.W. Varns Tigard, OR 97223 www.wclib.org	503/639-0651
WCMA	Window Covering Manufacturers Association 355 Lexington Avenue 15th Floor New York, New York 10017 www.wcmanet.org	212/297-2122
WDMA	Window & Door Manufacturers Association 401 N. Michigan Avenue, Suite 2200 Chicago, IL 60611 or 2025 M Street, NW, Ste. 800 Washington, D.C. 20036-3309 www.wdma.com	312/321-6802 202/367-1157
WI	Woodwork Institute P.O. Box 980247 West Sacramento, CA 95798 www.wicnet.org	916/372-9943
WRI	Wire Reinforcement Institute 942 Main Street Hartford, CT 06103 www.wirereinforcementinstitute.org	860/240-9545
WWCA	Western Wall & Ceiling Contractors Association 1910 N. Lime St. Orange, California 92865 www.wwcca.org	714/221-5520
WWPA	Western Wood Products Association 522 SW Fifth Ave., Suite 500 Portland, OR 97204-2122 www2.wwpa.org	503/224-3930

PART 2 - PRODUCTS Not Used.

PART 3 - EXECUTION Not Used.

END OF DOCUMENT

MATERIALS AND EQUIPMENT

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, Purchase of Materials and Equipment;
- B. Special Conditions;
- C. Imported Materials Certification.

1.02 MATERIAL AND EQUIPMENT

- A. Only items approved by the District and/or Design Professional shall be used.
- B. Contractor shall submit lists of products and other product information in accordance with the Contract Documents, including, without limitation, the provisions regarding the submittals.

1.03 MATERIAL AND EQUIPMENT COLORS

- A. The District and/or Architect will provide a schedule of colors.
- B. No individual color selections will be made until after approval of all pertinent materials and equipment and after receipt of appropriate samples in accordance with the Contract Documents, including, without limitation, the provisions regarding the submittals.
- C. Contractor shall request priority in writing for any item requiring advance ordering to maintain the approved Construction Schedule.

1.04 DELIVERY, STORAGE, AND HANDLING

- A. Contractor shall deliver manufactured materials in original packages, containers, or bundles (with seals unbroken), bearing name or identification mark of manufacturer.
- B. Contractor shall deliver fabrications in as large assemblies as practicable; where specified as shop-primed or shop-finished, package or crate as required to preserve such priming or finish intact and free from abrasion.
- C. Contractor shall store materials in such a manner as necessary to properly protect them from damage. Materials or equipment damaged by handling, weather, dirt, or from any other cause will not be accepted.

- D. Materials are not acceptable that have been warehoused for long periods of time, stored or transported in improper environment, improperly packaged, inadequately labeled, poorly protected, excessively shipped, deviated from normal distribution pattern, or reassembled.
- E. Contractor shall store material so as to cause no obstructions of sidewalks, roadways, access to the Site or buildings, and underground services. Contractor shall protect material and equipment furnished under Contract.
- F. Contractor may store materials on Site with prior written approval by the District, all material shall remain under Contractor's control and Contractor shall remain liable for any damage to the materials. Should the Project Site not have storage area available, the Contractor shall provide for off-site storage at a bonded warehouse and with appropriate insurance coverage at no cost to District.
- G. When any room in Project is used as a shop or storeroom, the Contractor shall be responsible for any repairs, patching, or cleaning necessary due to that use. Location of storage space shall be subject to prior written approval by District.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. Manufacturers listed in various sections of Contract Documents are names of those manufacturers that are believed to be capable of supplying one or more of items specified therein.
- B. The listing of a manufacturer does not imply that every product of that manufacturer is acceptable as meeting the requirements of the Contract Documents.

2.02 FACILITIES AND EQUIPMENT

Contractor shall provide, install, maintain, and operate a complete and adequate facility for handling, the execution, disposal, and distribution of material and equipment as required for proper and timely performance of Work connected with Contract.

2.03 MATERIAL REFERENCE STANDARDS

Where material is specified solely by reference to "standard specifications" and if requested by District, Contractor shall submit for review data on actual material proposed to be incorporated into Work of Contract listing name and address of vendor, manufacturer, or producer, and trade or brand names of those materials, and data substantiating compliance with standard specifications.

PART 3 - EXECUTION

3.01 WORKMANSHIP

- A. Where not more specifically described in any other Contract Documents, workmanship shall conform to methods and operations of best standards and accepted practices of trade or trades involved and shall include items of fabrication, construction, or installation regularly furnished or required for completion (including finish and for successful operation, as intended).
- B. Work shall be executed by tradespersons skilled in their respective lines of Work. When completed, parts shall have been durably and substantially built and present a neat appearance.

3.02 COORDINATION

- A. Contractor shall coordinate installation of Work so as to not interfere with installation of others. Adjustment or rework because of Contractor's failure to coordinate will be at no additional cost to District.
- B. Contractor shall examine in-place work for readiness, completeness, fitness to be concealed or to receive other work, and in compliance with Contract Documents. Concealing or covering Work constitutes acceptance of additional cost which will result should in-place Work be found unsuitable for receiving other Work or otherwise deviating from the requirements of the Contract Documents.

3.03 COMPLETENESS

Contractor shall provide all portions of the Work, unless clearly stated otherwise, installed complete and operational with all elements, accessories, anchorages, utility connections, etc., in manner to assure well-balanced performance, in accordance with manufacturer's recommendations and by Contract Documents. For example, electric water coolers require water, electricity, and drain services; roof drains require drain system; sinks fit within countertop, etc. Terms such as "installed complete," "operable condition," "for use intended," "connected to all utilities," "terminate with proper cap," "adequately anchored," "patch and refinish," "to match similar," should be assumed to apply in all cases, except where completeness of functional or operable condition is specifically stated as not required.

3.04 APPROVED INSTALLER OR APPLICATOR

Installation by a manufacturer's approved installer or applicator is an understood part of Specifications and only approved installer or applicator is to provide on-site Work where specified manufacturer has on-going program of approving (i.e. certifying, bonding, re-warranting) installers or applicators. Newly established relationships between a manufacturer and an installer or applicator who does not have other approved applicator work in progress or completed is not approved for this Project.

3.05 MANUFACTURER'S RECOMMENDATIONS

All installations shall be in accordance with manufacturer's published recommendations and specific written directions of manufacturer's representative. Should Contract Documents differ from recommendations of manufacturer or directions of his representative, Contractor shall analyze differences, make recommendations to the District and the Architect in writing, and shall not proceed until interpretation or clarification has been issued by the District and/or the Architect.

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

TEMPORARY FACILITIES AND CONTROLS

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. Site Standards; and
- D. Construction Waste Management and Disposal.

1.02 TEMPORARY UTILITIES:

- A. Electric Power and Lighting:
 - (1) Contractor will pay for power during the course of the Work. To the extent power is available in the building(s) or on the Site, Contractor may use the District's existing utilities by making prearranged payments to the District for the utilities used by Contractor and all Subcontractors. Contractor shall be responsible for providing temporary facilities required to deliver that power service from its existing location in the building(s) or on the Site to point of intended use.
 - (2) Contractor shall verify characteristics of power available in building(s) or on the Site. Contractor shall take all actions required to make modifications where power of higher voltage or different phases of current are required. Contractor shall be fully responsible for providing that service and shall pay all costs required therefor.
 - (3) Contractor shall furnish, wire for, install, and maintain temporary electrical lights wherever it is necessary to provide illumination for the proper performance and/or observation of the Work: a minimum of 20 foot-candles for rough work and 50 foot-candles for finish work.
 - (4) Contractor shall be responsible for maintaining existing lighting levels in the project vicinity should temporary outages or service interruptions occur.
- B. Heat and Ventilation:

- (1) Contractor shall provide temporary heat to maintain environmental conditions to facilitate progress of the Work, to meet specified minimum conditions for the installation and curing of materials, and to protect materials and finishes from damage due to improper temperature and humidity conditions. Portable heaters shall be standard units complete with controls.
- (2) Contractor shall provide forced ventilation and dehumidification, as required, of enclosed areas for proper installation and curing of materials, to disperse humidity, and to prevent hazardous accumulations of dust, fumes, vapors, and gases.
- (3) Contractor shall pay the costs of installation, maintenance, operation, and removal of temporary heat and ventilation, including costs for fuel consumed, required for the performance of the Work.

C. Water:

- (1) Contractor shall pay for water used during the course of the Work. Contractor shall coordinate and pay for installation or use of water meter in compliance with local water agency requirements. To the extent water is then available in the building(s) or on the Site, Contractor may use the District's existing utilities by making prearranged payments to the District for the utilities used by Contractor and all Subcontractors. Contractor shall be responsible for providing temporary facilities required to deliver such utility service from its existing location in the building(s), on the Site, or other location approved by the local water agency, to point of intended use.
- (2) Contractor shall use backflow preventers on water lines at point of connection to District's water supply. Backflow preventers shall comply with requirements of Uniform Plumbing Code.
- (3) Contractor shall make potable water available for human consumption.

D. Sanitary Facilities:

- (1) Contractor shall provide sanitary temporary facilities in no fewer numbers than required by law and such additional facilities as may be directed by the Inspector for the use of all workers. The facilities shall be maintained in a sanitary condition at all times and shall be left at the Site until removal is directed by the Inspector or Contractor completes all other work at the Site.
- (2) Use of toilet facilities in the Work under construction shall not be permitted except by consent of the Inspector and the District.

E. Telephone Service:

- (1) Contractor shall arrange with local telephone service company for telephone service as required for the performance of the Work.

Contractor shall, at a minimum, provide in its field office one line for telephone and one line for fax machine.

- (2) Contractor shall pay the costs for telephone and fax lines installation, maintenance, service, and removal.

F. Fire Protection:

- (1) Contractor shall provide and maintain fire extinguishers and other equipment for fire protection. Such equipment shall be designated for use for fire protection only and shall comply with all requirements of the California Fire, State Fire Marshall and/or its designee.
- (2) Where on-site welding and burning of steel is unavoidable, Contractor shall provide protection for adjacent surfaces.

G. Trash Removal:

- (1) Contractor shall provide trash removal on a timely basis. Under no circumstance shall Contractor use District trash service.

H. Field Office:

- (1) If Contractor chooses to provide a field office, it shall be an acceptable construction trailer that is well-lit and ventilated. The construction trailer shall be equipped with shelves, desks, filing cabinet, chairs, and such other items of equipment needed. Trailer and equipment are the property of the Contractor and must be removed from the Site upon completion of the Work.
- (2) Contractor shall provide any additional electric lighting and power required for the trailer. Contractor shall make adequate provisions for heating and cooling as required.

1.03 CONSTRUCTION AIDS:

A. Plant and Equipment:

- (1) Contractor shall furnish, operate, and maintain a complete plant for fabricating, handling, conveying, installing, and erecting materials and equipment; and for conveyances for transporting workers. Include elevators, hoists, debris chutes, and other equipment, tools, and appliances necessary for performance of the Work.
- (2) Contractor shall maintain plant and equipment in safe and efficient operating condition. Damages due to defective plant and equipment, and uses made thereof, shall be repaired by Contractor at no expense to the District.

- B. None of the District's tools and equipment shall be used by Contractor for the performance of the Work.

1.04 BARRIERS AND ENCLOSURES:

- A. Contractor shall obtain the District's written permission for locations and types of temporary barriers and enclosures, including fire-rated materials proposed for use, prior to their installation.
- B. Contractor shall provide and maintain temporary enclosures to prevent public entry and to protect persons using other buildings and portions of the Site and/or Premises, the public, and workers. Contractor shall also protect the Work and existing facilities from the elements, and adjacent construction and improvements, persons, and trees and plants from damage and injury from demolition and construction operations.
- C. Contractor shall provide site access to existing facilities for persons using other buildings and portions of the Site, the public, and for deliveries and other services and activities.
- D. Tree and Plant Protection:
 - (1) Contractor shall preserve and protect existing trees and plants on the Premises that are not designated or required to be removed, and those adjacent to the Premises.
 - (2) Contractor shall provide barriers to a minimum height of 4'-0" around drip line of each tree and plant, around each group of trees and plants, as applicable, in the proximity of demolition and construction operations, or as denoted on the Plans.
 - (3) Contractor shall not park trucks, store materials, perform Work or cross over landscaped areas. Contractor shall not dispose of paint thinners, water from cleaning, plastering or concrete operations, or other deleterious materials in landscaped areas, storm drain systems, or sewers. Plant materials damaged as a result of the performance of the Work shall, at the option of the District and at Contractor's expense, either be replaced with new plant materials equal in size to those damaged or by payment of an amount representing the value of the damaged materials as determined by the District.
 - (4) Contractor shall remove soil that has been contaminated during the performance of the Work by oil, solvents, and other materials which could be harmful to trees and plants, and replace with good soil, at Contractor's expense.
 - (5) Excavation around Trees:
 - (a) Excavation within drip lines of trees shall be done only where absolutely necessary and with written permission from the District.
 - (b) Where trenching for utilities is required within drip lines, tunneling under and around roots shall be by hand digging and

shall be approved by the District. Main lateral roots and taproots shall not be cut. All roots 2 inches in diameter and larger shall be tunneled under and heavily wrapped with wet burlap so as to prevent scarring or excessive drying. Smaller roots that interfere with installation of new work may be cut with prior approval by the District. Roots must first be cut with a Vermeer, or equivalent, root cutter prior to any trenching.

- (c) Where excavation for new construction is required within drip line of trees, hand excavation shall be employed to minimize damage to root system. Roots shall be relocated in backfill areas wherever possible. If encountered immediately adjacent to location of new construction, roots shall be cut approximately 6 inches back from new construction.
- (d) Approved excavations shall be carefully backfilled with the excavated materials approved for backfilling. Backfill shall conform to adjacent grades without dips, sunken areas, humps, or other surface irregularities. Do not use mechanical equipment to compact backfill. Tamp carefully using hand tools, refilling and tamping until Final Acceptance as necessary to offset settlement.
- (e) Exposed roots shall not be allowed to dry out before permanent backfill is placed. Temporary earth cover shall be provided, or roots shall be wrapped with four layers of wet, untreated burlap and temporarily supported and protected from damage until permanently relocated and covered with backfill.
- (f) Accidentally broken roots should be sawed cleanly 3 inches behind ragged end.

1.05 SECURITY:

The Contractor shall be responsible for project security for materials, tools, equipment, supplies, and completed and partially completed Work.

1.06 TEMPORARY CONTROLS:

A. Noise Control:

- (1) Contractor acknowledges that adjacent facilities may remain in operation during all or a portion of the Work period, and it shall take all reasonable precautions to minimize noise as required by applicable laws and the Contract Documents.
- (2) Notice of proposed noisy operations, including without limitation, operation of pneumatic demolition tools, concrete saws, and other equipment, shall be submitted to the District a minimum of forty-eight (48) hours in advance of their performance.

B. Noise and Vibration:

- (1) Equipment and impact tools shall have intake and exhaust mufflers.
- (2) Contractor shall cooperate with District to minimize and/or cease the use of noisy and vibratory equipment if that equipment becomes objectionable by its longevity.

C. Dust and Dirt:

- (1) Contractor shall conduct demolition and construction operations to minimize the generation of dust and dirt, and prevent dust and dirt from interfering with the progress of the Work and from accumulating in the Work and adjacent areas including, without limitation, occupied facilities.
- (2) Contractor shall periodically water exterior demolition and construction areas to minimize the generation of dust and dirt.
- (3) Contractor shall ensure that all hauling equipment and trucks carrying loads of soil and debris shall have their loads sprayed with water or covered with tarpaulins, and as otherwise required by local and state ordinance.
- (4) Contractor shall prevent dust and dirt from accumulating on walks, roadways, parking areas, and planting, and from washing into sewer and storm drain lines.

D. Water:

- (1) Contractor shall not permit surface and subsurface water, and other liquids, to accumulate in or about the vicinity of the Premises. Should accumulation develop, Contractor shall control the water or other liquid, and suitably dispose of it by means of temporary pumps, piping, drainage lines, troughs, ditches, dams, or other methods.

E. Pollution:

- (1) No burning of refuse, debris, or other materials shall be permitted on or in the vicinity of the Premises.
- (2) Contractor shall comply with applicable regulatory requirements and anti-pollution ordinances during the conduct of the Work including, without limitation, demolition, construction, and disposal operations.

F. Lighting:

- (1) If portable lights are used after dark, all light must be located so as not to direct light into neighboring property.

1.07 JOB SIGN(S):

A. General:

- (1) Contractor shall provide and maintain a Project identification sign with the design, text, and colors designated by the District and/or the Design Professional; locate sign as approved by the District.
- (2) Signs other than the specified Project sign and or signs required by law, for safety, or for egress, shall not be permitted, unless otherwise approved in advance by the District.

B. Materials:

- (1) Structure and Framing: Structurally sound, new or used wood or metal; wood shall be nominal 3/4-inch exterior grade plywood.
- (2) Sign Surface: Minimum 3/4-inch exterior grade plywood.
- (3) Rough Hardware: Galvanized.
- (4) Paint: Exterior quality, of type and colors selected by the District and/or the Design Professional.

C. Fabrication:

- (1) Contractor shall fabricate to provide smooth, even surface for painting.
- (2) Size: 4'-0" x 8'-0", unless otherwise indicated.
- (3) Contractor shall paint exposed surfaces of supports, framing, and surface material with exterior grade paint: one coat of primer and one coat of finish paint.
- (4) Text and Graphics: As indicated.

1.08 PUBLICITY RELEASES:

- A. Contractor shall not release any information, story, photograph, plan, or drawing relating information about the Project to anyone, including press and other public communications medium, including, without limitation, on website(s) without the written permission of the District.

PART 2 – PRODUCTS

NOT USED

PART 3 – EXECUTION

NOT USED

END OF DOCUMENT

CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

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; and
- C. Temporary Facilities and Controls.

1.02 SECTION INCLUDES:

- A. Administrative and procedural requirements for the following:
 - (1) Salvaging non-hazardous construction waste.
 - (2) Recycling non-hazardous construction waste.
 - (3) Disposing of non-hazardous construction waste.

1.03 DEFINITIONS:

- A. Construction Waste: Building and site improvement materials and other solid waste resulting from construction, remodeling, renovation, or repair operations. Construction waste includes packaging.
- B. Demolition Waste: Building and site improvement materials resulting from demolition or selective demolition operations.
- C. Disposal: Removal off-site of demolition and construction waste and subsequent sale, recycling, reuse, or deposit in landfill or incinerator acceptable to authorities having jurisdiction.
- D. Recycle: Recovery of demolition or construction waste for subsequent processing in preparation for reuse.
- E. Salvage: Recovery of demolition or construction waste and subsequent sale or reuse in another facility.
- F. Salvage and Reuse: Recovery of demolition or construction waste and subsequent incorporation into the Work.

1.04 PERFORMANCE REQUIREMENTS:

- A. General: Develop waste management plan that results in end-of Project rates for salvage/recycling of fifty percent (50%) by weight (or by volume, but not a combination) of total waste generated by the Work.

1.05 SUBMITTALS:

- A. Waste Management Plan: Submit waste management plan within 30 days of date established for commencement of the Work.
- B. Waste Reduction Progress Reports: Concurrent with each Application for Payment, submit copies of report. Include the following information:
 - (1) Material category.
 - (2) Generation point of waste.
 - (3) Total quantity of waste in tons or cubic yards.
 - (4) Quantity of waste salvaged, both estimated and actual in tons or cubic yards.
 - (5) Quantity of waste recycled, both estimated and actual in tons or cubic yards.
 - (6) Total quantity of waste recovered (salvaged plus recycled) in tons or cubic yards.
 - (7) Total quantity of waste recovered (salvaged plus recycled) as a percentage of total waste.
- C. Waste Reduction Calculations: Before request for final payment, submit copies of calculated end-of-Project rates for salvage, recycling, and disposal as a percentage of total waste generated by the Work.
- D. Records of Donations: Indicate receipt and acceptance of salvageable waste donated to individuals and organizations. Indicate whether organization is tax exempt.
- E. Records of Sales: Indicate receipt and acceptance of salvageable waste sold to individuals and organizations. Indicate whether organization is tax exempt.
- F. Recycling and Processing Facility Records: Indicate receipt and acceptance of recyclable waste by recycling and processing facilities licensed to accept them. Include manifests, weight tickets, receipts, and invoices.
- G. Landfill and Incinerator Disposal Records: Indicate receipt and acceptance of waste by landfills and incinerator facilities licensed to accept them. Include manifests, weight tickets, receipts, and invoices.

- H. CHPS Submittal: CHPS letter template for Credit ME2.0 and ME2.1, signed by Contractor, tabulating total waste material, quantities diverted and means by which it is diverted, and statement that requirements for the credit have been met.
- I. Qualification Data: For Waste Management Coordinator.
- J. Statement of Refrigerant Recovery: Signed by refrigerant recovery technician responsible for recovering refrigerant, stating that all refrigerant that was present was recovered and that recovery was performed according to EPA regulations. Include name and address of technician and date refrigerant was recovered.
- K. Submittal procedures and quantities are specified in Document 01 33 00.

1.06 QUALITY ASSURANCE:

- A. Waste Management Coordinator Qualifications: LEED Accredited Professional by U.S. Green Building Council.
- B. Regulatory Requirements: Comply with hauling and disposal regulations of authorities having jurisdiction.
- C. Waste Management Conference: Conduct conference at Project site to comply with requirements. Review methods and procedures related to waste management including, but not limited to, the following:
 - (1) Review and discuss waste management plan including responsibilities of Waste Management Coordinator.
 - (2) Review requirements for documenting quantities of each type of waste and its disposition.
 - (3) Review and finalize procedures for materials separation and verify availability of containers and bins needed to avoid delays.
 - (4) Review procedures for periodic waste collection and transportation to recycling and disposal facilities.
 - (5) Review waste management requirements for each trade.

1.07 WASTE MANAGEMENT PLAN:

- A. General: Develop plan consisting of waste identification, waste reduction work plan, and cost/revenue analysis. Indicate quantities by weight or volume, but use same units of measurement throughout waste management plan.
- B. Waste Identification: Indicate anticipated types and quantities of site-clearing and construction waste generated by the Work. Include estimated quantities and assumptions for estimates.

- C. Waste Reduction Work Plan: List each type of waste and whether it will be salvaged, recycled, or disposed of in landfill or incinerator. Include points of waste generation, total quantity of each type of waste, quantity for each means of recovery, and handling and transportation procedures.
- (1) Salvaged Materials for Reuse: For materials that will be salvaged and reused in this Project, describe methods for preparing salvaged materials before incorporation into the Work.
 - (2) Salvaged Materials for Sale: For materials that will be sold to individuals and organizations, include list of their names, addresses, and telephone numbers.
 - (3) Salvaged Materials for Donation: For materials that will be donated to individuals and organizations, include list of their names, addresses, and telephone numbers.
 - (4) Recycled Materials: Include list of local receivers and processors and type of recycled materials each will accept. Include names, addresses, and telephone numbers.
 - (5) Disposed Materials: Indicate how and where materials will be disposed of. Include name, address, and telephone number of each landfill and incinerator facility.
 - (6) Handling and Transportation Procedures: Include method that will be used for separating recyclable waste including sizes of containers, container labeling, and designated location on Project site where materials separation will be located.

PART 2 - PRODUCTS Not Used.

PART 3 - EXECUTION

3.01 PLAN IMPLEMENTATION:

- A. General: Implement approved waste management plan. Provide handling, containers, storage, signage, transportation, and other items as required to implement waste management plan during the entire duration of the Contract.
- (1) Comply with Document 01 50 00 for operation, termination, and removal requirements.
- B. [Waste Management Coordinator: Engage a waste management coordinator to be responsible for implementing, monitoring, and reporting status of waste management work plan. Coordinator shall be present at Project site full time for duration of Project.]

- C. Training: Train workers, subcontractors, and suppliers on proper waste management procedures, as appropriate for the Work occurring at Project site.
 - (1) Distribute waste management plan to everyone concerned within 3 days of submittal return.
 - (2) Distribute waste management plan to entities when they first begin work on site. Review plan procedures and locations established for salvage, recycling, and disposal.
- D. Site Access and Temporary Controls: Conduct waste management operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
 - (1) Designate and label specific areas of Project site necessary for separating materials that are to be salvaged, recycled, reused, donated, and sold.
 - (2) Comply with Document 01 50 00 for controlling dust and dirt, environmental protection, and noise control.

3.02 RECYCLING CONSTRUCTION WASTE:

- A. General: Recycle paper and beverage containers used by on-site workers.
- B. Recycling Incentives: Revenues, savings, rebates, tax credits, and other incentives received for recycling waste materials shall accrue to the Contractor.
- C. Procedures: Separate recyclable waste from other waste materials, trash, and debris. Separate recyclable waste by type at Project site to the maximum extent practical.
 - (1) Provide appropriately marked containers or bins for controlling recyclable waste until they are removed from Project Site. Include list of acceptable and unacceptable materials at each container and bin.
 - (a) Inspect containers and bins for contamination and remove contaminated materials if found.
 - (2) Stockpile processed materials on site without intermixing with other materials. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.
 - (3) Stockpile materials away from construction area. Do not store within drip line of remaining trees.
 - (4) Store components off the ground and protect from the weather.

- (5) Remove recyclable waste off District property and transport to recycling receiver or processor.
- D. Packaging:
 - (1) Cardboard and Boxes: Break down packaging into flat sheets. Bundle and store in a dry location.
 - (2) Polystyrene Packaging: Separate and bag material.
 - (3) Pallets: As much as possible, require deliveries using pallets to remove pallets from Project Site. For pallets that remain on Site, break down pallets into component wood pieces and comply with requirements for recycling wood.
 - (4) Crates: Break down crates into component wood pieces and comply with requirements for recycling wood.
 - E. Site-Clearing Wastes: Chip brush, branches, and trees on site.
 - F. Wood Materials:
 - (1) Clean Cut-Offs of Lumber: Grind or chip into small pieces.
 - (2) Clean Sawdust: Bag sawdust that does not contain painted or treated wood.
 - G. Gypsum Board: Stack large clean pieces on wood pallets and store in a dry location.
 - (1) Clean Gypsum Board: Grind scraps of clean gypsum board using small mobile chipper or hammer mill. Screen out paper after grinding.

3.03 DISPOSAL OF WASTE:

- A. General: Except for items or materials to be salvaged, recycled, or otherwise reused, remove waste materials from Project Site and legally dispose of them in a landfill or incinerator acceptable to authorities having jurisdiction.
 - (1) Except as otherwise specified, do not allow waste materials that are to be disposed of accumulate on site.
 - (2) Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
- B. Burning: Do not burn waste materials.
- C. Disposal: Transport waste materials off District property and legally dispose of them.

END OF SECTION

FIELD OFFICES

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; and
- C. Temporary Facilities and Controls.

1.02 SECTION INCLUDES:

- A. Requirements for Field Offices and Field Office Trailers.

1.03 SUMMARY:

- A. General: Contractor shall provide District's Field Office Trailer and contents, for District's use exclusively, during the term of the Contract.
- B. Property: Trailer, furniture, furnishings, equipment, and the like, supplied by the Contractor with the Office Trailer shall remain the property of the Contractor; District property items installed, delivered, and the like by District within the Office Trailer will remain District's property.
- C. Modifications: District reserves the right to modify the trailer or contents, or both, as may be deemed proper by District.
- D. Condition: Trailer and contents shall be clean, neat, substantially finished, in good, proper, and safe condition for use, operation, and the like; the trailer and contents shall not be required to be new.
- E. Installation Timing: Provide safe, fully furnished, functional, proper, complete, and finished trailer properly ready for entire use, within fourteen (14) calendar days of District's notification of the issuance of Notice to Proceed.

1.04 SUBMITTALS:

- A. General: Submit submittals to District in quantity, format, type, and the like, as specified herein.
- B. Office Trailer Data: One (1) copy of manufacturer's descriptive data, technical descriptions, regulatory compliance, industry standards, installation, removal, and maintenance instructions.

- C. Equipment Data: Two (2) copies of manufacturer data for each type of equipment, if directed by District.
- D. Furniture and Furnishings Data: Two (2) copies of manufacturer data for each type of equipment, if directed by District.
- E. Plans: One (1) reproducible copy of appropriately scaled plans of trailer layout. Plans shall include, but not be limited to: lighting; furniture; equipment; telephone and electrical outlets; and the like.
- F. Product Samples: One (1) complete and entire unit of each type, if directed by District.

1.05 QUALITY ASSURANCE

- A. Standards: In the event that provisions of codes, regulations, safety orders, Contract Documents, referenced manufacturer's specifications, manufacturer's instructions, industry standards, and the like, are in conflict, the more restrictive and higher quality shall govern.
- B. Installer: Installer or Installers engaged by Contractor must have a minimum of five (5) years of documented and properly authenticated successful experience of specialization in the installation of the items or systems, or both, specified herein.
- C. Manufacturer: Contractor shall obtain products from nationally and industry recognized Manufacturer with five (5) years minimum, of immediately recent, continuous, documented and properly authenticated successful experience of specialization in the manufacture of the product specified herein.
- D. State Personnel Training: Provide proper training for maintenance and operations, including emergency procedures, and the like, as directed by District.
- E. Units: Shall be sound and free of defects, and shall not include any damage or defect that will impair the safety, installation, performance, or the durability of the entire Office Trailer and appurtenant systems.

1.06 REGULATORY REQUIREMENTS

- A. General: Work shall be executed in accordance with applicable Codes, Regulations, Statutes, Enactments, Rulings, Laws, each authority having jurisdiction, and including, but not limited to, Regulatory Requirements specified herein.
- B. California Building Standards Code ("CBSC").
- C. California Code of Regulations, Title 25, Chapter 3, Sub Chapter 2, Article 3 ("CCR").

- D. Coach Insignia: Trailer shall display California Commercial Coach Insignia; such insignia shall be deemed to show that the trailer is in accordance with the Construction and Fire Safety requirements of CCR.

PART 2 – PRODUCTS

2.01 FIELD OFFICE TRAILER

- A. General: Provide entire Field Office Trailer of type, function, operation, capacity, size, complete with controls, safety devices, accessories, and the like, for proper and durable installation. Partitions, walls, ceiling, and other interior and exterior surfaces shall be appropriately finished, including, but not limited to, trim, painting, wall base, floor covering, suspended or similar ceiling, and the like; provide systems, components, units, nuts, bolts, screws, anchoring devices, fastening devices, washers, accessories, adhesives, sealants, and other items of type, grade, and class required for the particular use, not identified but required for a complete, weather-tight, appropriately operating, and finished installation.
- B. Manufacturers: General Electric Capital Modular Space; The Space Place, Inc.; or equal.
- C. Program: Provide a wheel-mounted trailer with stairs, landings, platforms, ramps, and the like, in good, proper, safe, clean, and properly finished condition; with proper heavy duty locks, and other proper and effective security at all doors, windows, and the like. Trailer shall be maintained in good, proper, safe, clean, and properly finished condition during the Contract.
 - (1) Nominal Trailer Size: Four hundred eighty (480) square feet, minimum.
 - (2) Stairs, Platform: Properly finished stairs, platforms, and ramps.
 - (3) Doors: Two (2), three (3) foot wide exterior doors with locksets; finished ramp, steps, and entry platform at each exterior door.
 - (4) Keys: Submit five (5) keys for each door, window, furniture unit, and the like. There shall be no other key copies or originals available; each key shall be identified for District; and shall be labeled, or tagged or both, as directed by District.
 - (5) HVAC: Typical wall mounted BARD Unit with working thermostat.
 - (6) Lighting: Sixty-five (65) foot-candles illumination minimum at any point, at thirty (30) inches above finished floor throughout from fluorescent light source, exclusively, or as directed by District.
 - (7) Electrical Outlets: One (1) duplex outlet evenly spaced every twelve (12) linear horizontal feet of wall face, and electrical service ready for use.

- (8) Telephones and Telephone Outlets: Two (2) telephone lines wired, connected to telephone utility service, and ready for use, and two (2) telephone instruments, each with two (2)-line capability, speed dial and hands-free feature. Locate each outlet as directed by District.
- (9) Voicemail Messaging System or Answering Machine: One (1) unit, two (2)-line; digital.

2.02 FIELD OFFICE TRAILER ITEMS

- A. General: Provide the Field Office Trailer with the following arranged into two (2) workstations:
 - (1) Desks: Two (2) desks: thirty-six (36) inches by sixty (60) inches; steel, laminated plastic top; locking, one (1) or two (2) file drawers single pedestal; steel; provide five (5) keys to District.
 - (2) Tables: Two (2) tables; thirty-six (36) inches by sixty (60) inches; twenty-nine (29) inches high; steel, laminated plastic top tables; one (1) at each desk.
 - (3) Chairs: Two (2) chairs: swivel; steel; with seat cushion and arms; one (1) at each desk.
 - (4) Waste Baskets: Two (2) waste baskets, one at each desk.
- B. Furniture and Equipment: Provide in the space located to effect efficient and logical use.
 - (1) File cabinet: One (1); four (4) drawer; lateral; steel locking.
 - (2) Plan Table: One (1) plan table: thirty-six (36) inches deep by seventy-two (72) inches wide by forty-two (42) inches high; adjustable; wood or steel; with lockable plan and pencil drawers.
 - (3) Drafting Stool: One (1) drafting stool; swiveling; steel; padded; adjustable; with footrest and casters.
 - (4) Bookshelf: One (1) bookshelf: thirty-six (36) inches deep by seventy-two (72) inches wide by forty-two (42) inches high; adjustable; wood or steel; with lockable plan and pencil drawer.
 - (5) Plan Rack: One (1) wheel mounted plan rack.
 - (6) Waste Baskets: One (1) large waste basket.
 - (7) Coat/Hat Hanger: Wall mounted with minimum capacity for four (4) garments and ten (10) hats.

- (8) Document Management System: Shall include an integrated high-volume printer, copier, and facsimile machine, including stand, base, and storage cabinet; and shall include the following features:
- (a) Type: Laser, dry electrostatic transfer, plain paper, digital, multi-function imaging system.
 - (b) Network: Ethernet or Token Ring network ready, Plug-and-Play.
 - (c) Print, send/receive facsimile from any connected workstation.
 - (d) Resolution: Six hundred (600) dots per inch by six hundred (600) dots per inch, minimum.
 - (e) Print Speed: Twenty (20) pages per minute, minimum.
 - (f) Copies: Twenty (20) copies per minute, minimum.
 - (g) Document Handler: Forty (40) sheet, minimum
 - (h) Collator: Forty (40) bin, minimum, with stapling.
 - (i) Duplexing: Capable.
 - (j) Paper Size: Capable of handling paper sizes to eleven (11) inches by seventeen (17) inches.
 - (k) Paper Cassettes: One (1) each for eight and one half (8.5) inches by eleven (11) inches, eight and one half (8.5) inches by fourteen (14) inches, and eleven (11) inches by seventeen (17) inches paper sizes; minimum two hundred fifty (250) sheets per cassette.
 - (l) Reduction/Enlargement: Capable of reduction to twenty-five percent (25%) and enlargement to two hundred percent (200%).
 - (m) Facsimile Electronic Storage: Capable of storing minimum of fifty (50) speed dial numbers, group faxing and broadcast faxing.
 - (n) Facsimile Scanning: Capable of scanning into memory a minimum of one hundred (100) pages with maximum scan time of three (3) seconds per page.
 - (o) Halftone: Sixty-four (64) levels.
 - (p) Redial: Automatic and Manual.

- (9) Maintenance: Contractor shall purchase service agreements for each unit of equipment for the duration of the project plus two (2) months, and shall maintain all equipment in proper working condition. Service agreements shall include provision for replacement of toner cartridges and other items required to effect proper unit use. Service agreements shall also provide for:
 - (a) Unlimited Service Calls.
 - (b) Same Day Response.
 - (c) All parts, labor, preventative maintenance and mileage.
 - (d) All chemicals, such as toner, fixing agent, and the like.
 - (e) System training and setup.

- (10) Portable Toilets: Two (2); each shall include a urinal; each unit shall be a properly enclosed chemical unit conforming to ANSI Z4.3.
 - (a) Location: As directed by District.
 - (b) Maintenance: Maintain each unit and surrounding areas in a clean, hygienic and orderly manner, at all time. Empty, clean, and sanitize each unit each day at a location and time as directed by District.
 - (c) Removal: Relocate, or remove from the site, each Portable Toilet. Upon such directive by District, the Contractor shall forthwith relocate or remove each Portable Toilet and submit the affected areas to a condition which existed prior to the installation of each Portable Toilet, within three (3) calendar days, or as directed by District in writing, at no cost to District.

2.03 UTILITY AND SERVICES

- A. Telephone Service: Contractor shall provide and interface the entire telephone service, and shall properly and timely pay for telephone service for District's non-long-distance use. Also include high speed internet connection with Wi-Fi capabilities.
- B. Electrical Service: Provide all proper connections and continuously pay for service for the duration of the Work.

2.04 FINISHES

- A. General: Manufacturer standard finish system over surfaces properly cleaned, pretreated, and prepared to obtain proper bond; all visible surfaces shall be coated.
- B. Finish: Color as selected by District from manufacturer standard palette.

PART 3 – EXECUTION

3.01 INSTALLATION

- A. General: Properly prepare area and affected items to receive the Work. Set Work accurately in location, alignment, and elevation; rigidly, securely, and firmly anchor to appropriate structure; install plumb, straight, square, level, true, without racking, rigidly anchored to proper solid blocking, substrate, and the like; provide appropriate type and quantity of reinforcements, fasteners, adhesives, self-adhesive and other tapes; lubricants, coatings, accessories, and the like, as required for a complete, structurally rigid, stable, sound, and appropriately finished installation, in accordance with manufacturer's published instructions, and as indicated. The more restrictive and higher quality requirement shall govern. Moving parts shall be properly secured, without binding, looseness, noise, and the like.
- B. Installation: Install in accordance with 25 CCR 3.2.3 and as directed by District; jack up trailer and level both ways; mount on proper concrete piers with all load off wheels; provide required tie down and accessories per Section 4368 of referenced CCR, and as directed by District.
- C. Rejected Work: Work, materials, unit, items, systems, and the like, not accepted by District shall be deemed rejected, and shall forthwith be removed and replaced with proper and new Work, materials, unit, items, systems, and the like at no cost to District.
- D. Standard: Comply with manufacturer's published instructions, or with instructions as shown or indicated; the more restrictive and higher quality requirement shall govern.
- E. Location: As directed by District.
- F. Fire Resistance: Construct and install in accordance with UL requirements.
- G. Maintenance: Contractor shall maintain trailer and adjacent areas in a safe, clean and hygienic condition throughout the duration of the Work, and as directed by District. Properly repair or replace furniture or other items, as directed by District. Properly remove unsafe, damaged, or broken furniture, or similar items, and replace with safe and proper items. Contractor shall pay cost of all services, repair, and maintenance, or replacement of each item.
- H. Janitorial Service: Provide professional janitorial services, including, but not limited to, trash, waste paper baskets, fill paper dispensers; clean and dust all furniture, files, and the like; sweep and mop resilient and similar flooring; and vacuum carpeting and similar flooring.
 - (1) Frequency: Two (2) times per week, minimum.

- I. Removal: Properly remove the Office Trailer and contents from the Site upon completion of the Contract, or as directed by District in writing. Forthwith properly patch and repair affected areas; replace damaged items with new items. Carefully and properly inventory, clean, pack, store, and protect District property; submit District property to District at a date, time and location as directed by District.

END OF DOCUMENT

OWNER-FURNISHED PRODUCTS

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; and
- C. Materials and Equipment.

1.02 SECTION INCLUDES

- A. Requirements for the following:
 - (1) Installing Owner-furnished materials and equipment.
 - (2) Providing necessary utilities, connections and rough-ins.

1.03 DEFINITIONS

- A. Owner: District, who is providing/furnishing materials and equipment.
- B. Installing Contactor: Contractor, who is installing the materials and equipment furnished by the Owner.

1.04 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Receive, store and handle products in accordance with the manufacturer's instructions.
- B. Protect equipment items as required to prevent damage during storage and construction.

PART 2 – PRODUCTS

2.01 GENERAL PRODUCT REQUIREMENTS

- A. Installing Contractor's Responsibilities:
 - (1) Verify mounting and utility requirements for Owner-furnished materials and equipment items.
 - (2) Provide mounting and utility rough in for all items where required.

- (a) Rough in locations, sizes, capacities, and similar type items shall be as indicated and required by product manufacturer.
- B. Owner and Installing Contractor(s) Responsibilities:
- (1) Owner-Furnished/Contractor Installed ("OFCI"): Furnished by the Owner; installed by the Installing Contractor.
 - (a) General: Owner and Installing Contractor(s) will coordinate deliveries of materials and equipment to coincide with the construction schedule.
 - (b) Owner will furnish specified materials and equipment delivered to the site. Owner/vendor's representative shall be present on Site at the time of delivery to comply with the contract requirements and Specifications Section 01 43 00, Materials and Equipment, Article 1.04.
 - (c) The Owner furnishing specified materials and equipment is responsible to provide manufacturer guarantees as required by the Contract to the Installing Contractor.
 - (d) The Installing Contractor shall:
 - 1) Review, verify and accept the approved manufacturer's submittal/Shop Drawings for all materials and equipment required to be installed by the Installer Contractor and furnished by the Owner. Any discrepancies, including but not limited to possible space conflicts, should be brought to the attention of the Project Manager and/or Program Manager, if applicable.
 - 2) Coordinate timely delivery. Installing Contractor shall receive materials and equipment at Site when delivered and give written receipt at time of delivery, noting visible defects or omissions; if such declaration is not given, the Installing Contractor shall assume responsibility for such defects and omissions.
 - 3) Store materials and equipment until ready for installation and protect from loss and damage. Installing Contractor is responsible for providing adequate storage space.
 - 4) Coordinate with other bid package contractors and field measurement to ensure complete installation.
 - 5) Uncrate, assemble, and set in place.
 - 6) Provide adequate supports.

- 7) Install materials and equipment in accordance with manufacturer's recommendations, instructions, and Shop Drawings, supply labor and material required, and make mechanical, plumbing, and electrical connections required to operate equipment.
- 8) Be certified by equipment manufacturer for installation of the specific equipment supplied by the Owner.
- 9) Provide anchorage and/or bracing as required for seismic restraint per Title 24, UBC Standard 27-11 and all other applicable codes.
- 10) Provide the contract-required warranty and guarantee for all work, materials and equipment, and installation upon its completion and acceptance by the District. Guarantee includes all costs associated with the removal, shipping to and from the Site, and re-installation of any equipment found to be defective.

C. Compatibility with Space and Service Requirements:

- (1) Equipment items shall be compatible with space limitations indicated and as shown on the Contract Documents and specified in other sections of the Specifications.
- (2) Modifications to equipment items required to conform to space limitations specified for rough in shall not cause additional cost to the District.

D. Manufacturer's printed descriptions, specifications, and instructions shall govern the Work unless specifically indicated or specified otherwise.

2.02 FURNISHED MATERIALS AND EQUIPMENT

- A. All furnished materials and equipment are indicated or scheduled on the Contract Documents.

PART 3 – EXECUTION

3.01 INSTALLATION

- A. Install equipment items in accordance with the manufacturer's instructions.
- B. Set equipment items securely in place, rigidly or flexibly mounted in accordance with manufacturers' directions.
- C. Make electrical and mechanical connections as indicated and required.
- D. Touch-up and restore damaged or defaced finishes to the Owner's satisfaction.

3.02 CLEANING AND PROTECTION

- A. Repair or replace items not acceptable to the Architect or Owner.
- B. Upon completion of installation, clean equipment items in accordance with manufacturer's recommendations, and protect from damage until final acceptance of the Work by the Owner.

END OF DOCUMENT

SECTION 01 66 00

PRODUCT DELIVERY, STORAGE AND HANDLING

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 PRODUCTS

- A. Products are as defined in the General Conditions.
- B. Contractor shall not use and/or reuse materials and/or equipment removed from existing Premises, except as specifically permitted by the Contract Documents.
- C. Contractor shall provide interchangeable components of the same manufacturer, for similar components.

1.03 TRANSPORTATION AND HANDLING

- A. Contractor shall transport and handle Products in accordance with manufacturer's instructions.
- B. Contractor shall promptly inspect shipments to confirm that Products comply with requirements, quantities are correct, and products are undamaged.
- C. Contractor shall provide equipment and personnel to handle Products by methods to prevent soiling, disfigurement, or damage.

1.04 STORAGE AND PROTECTION

- A. Contractor shall store and protect Products in accordance with manufacturer's instructions, with seals and labels intact and legible. Contractor shall store sensitive products in weather-tight, climate controlled enclosures.
- B. For exterior storage of fabricated Products, Contractor shall place on sloped supports, above ground.
- C. Contractor shall provide off-site storage and protection when Site does not permit on-site storage or protection.

- D. Contractor shall cover products subject to deterioration with impervious sheet covering and provide ventilation to avoid condensation.
- E. Contractor shall store loose granular materials on solid flat surfaces in a well-drained area and prevent mixing with foreign matter.
- F. Contractor shall provide equipment and personnel to store Products by methods to prevent soiling, disfigurement, or damage.
- G. Contractor shall arrange storage of Products to permit access for inspection and periodically inspect to assure Products are undamaged and are maintained under specified conditions.

PART 2 – PRODUCTS Not Used.

PART 3 - EXECUTION Not Used.

END OF DOCUMENT

FIELD ENGINEERING

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 Investigation, and Soils Investigation Report;
- B. Special Conditions;
- C. Site-Visit Certification.

1.02 REQUIREMENTS INCLUDED:

- A. Contractor shall provide and pay for field engineering services by a California-registered engineer, required for the project, including, without limitations:
 - (1) Survey work required in execution of the Project.
 - (2) Civil or other professional engineering services specified, or required to execute Contractor's construction methods.

1.03 QUALIFICATIONS OF SURVEYOR OR ENGINEERS:

Contractor shall only use a qualified licensed engineer or registered land surveyor, to whom District makes no objection.

1.04 SURVEY REFERENCE POINTS:

- A. Existing basic horizontal and vertical control points for the Project are those designated on the Drawings.
- B. Contractor shall locate and protect control points prior to starting Site Work and preserve all permanent reference points during construction. In addition Contractor shall:
 - (1) Make no changes or relocation without prior written notice to District and Architect.
 - (2) Report to District and Architect when any reference point is lost or destroyed, or requires relocation because of necessary changes in grades or locations.
 - (3) Require surveyor to replace Project control points based on original survey control that may be lost or destroyed.

1.05 RECORDS:

Contractor shall maintain a complete, accurate log of all control and survey work as it progresses.

1.06 SUBMITTALS:

- A. Contractor shall submit name and address of Surveyor and Professional Engineer to District and Architect prior to its/their work on the Project.
- B. On request of District and Architect, Contractor shall submit documentation to verify accuracy of field engineering work, at no additional cost to the District.
- C. Contractor shall submit a certificate signed by registered engineer or surveyor certifying that elevations and locations of improvements are in conformance or nonconformance with Contract Documents.

PART 2 – PRODUCTS Not Used.

PART 3 - EXECUTION

3.01 COMPLIANCE WITH LAWS:

Contractor is responsible for meeting all applicable codes, OSHA, safety and shoring requirements.

3.02 NONCONFORMING WORK:

Contractor is responsible for any re-surveying required by correction of nonconforming work.

END OF DOCUMENT

CUTTING AND PATCHING

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, Integration of Work, Nonconforming Work, and Correction of Work, and Uncovering Work;
- B. Special Conditions;
- C. Hazardous Materials Procedures and Requirements;
- D. Hazardous Materials Certification;
- E. Lead-Based Paint Certification;
- F. Imported Materials Certification.

1.02 CUTTING AND PATCHING:

- A. Contractor shall be responsible for all cutting, fitting, and patching, including associated excavation and backfill, required to complete the Work or to:
 - (1) Make several parts fit together properly.
 - (2) Uncover portions of Work to provide for installation of ill-timed Work.
 - (3) Remove and replace defective Work.
 - (4) Remove and replace Work not conforming to requirements of Contract Documents.
 - (5) Remove Samples of installed Work as specified for testing.
 - (6) Provide routine penetrations of non-structural surfaces for installation of piping and electrical conduit.
 - (7) Attaching new materials to existing remodeling areas – including painting (or other finishes) to match existing conditions.
- B. In addition to Contract requirements, upon written instructions from the District, Contractor shall uncover Work to provide for observations of covered Work in accordance with the Contract Documents; remove samples of

installed materials for testing as directed by District; and remove Work to provide for alteration of existing Work.

- C. Contractor shall not cut or alter Work, or any part of it, in such a way that endangers or compromises the integrity of the Work, the Project, or work of others.

1.03 SUBMITTALS:

- A. Prior to any cutting or alterations that may affect the structural safety of Project, or work of others, and well in advance of executing such cutting or alterations, Contractor shall submit written notice to District pursuant to the applicable notice provisions of the Contract Documents, requesting consent to proceed with the cutting or alteration, including the following:
 - (1) The work of the District or other trades.
 - (2) Structural value or integrity of any element of Project.
 - (3) Integrity or effectiveness of weather-exposed or weather-resistant elements or systems.
 - (4) Efficiency, operational life, maintenance or safety of operational elements.
 - (5) Visual qualities of sight-exposed elements.
- B. Contractor's Request shall also include:
 - (1) Identification of Project.
 - (2) Description of affected Work.
 - (3) Necessity for cutting, alteration, or excavations.
 - (4) Effects of Work on District, other trades, or structural or weatherproof integrity of Project.
 - (5) Description of proposed Work:
 - (a) Scope of cutting, patching, alteration, or excavation.
 - (b) Trades that will execute Work.
 - (c) Products proposed to be used.
 - (d) Extent of refinishing to be done.
 - (6) Alternates to cutting and patching.
 - (7) Cost proposal, when applicable.

- (8) The scheduled date the Contractor intends to perform the Work and the duration of time to complete the Work.
- (9) Written permission of District or other District contractor(s) whose work will be affected.

1.04 QUALITY ASSURANCE:

- A. Contractor shall ensure that cutting, fitting, and patching shall achieve security, strength, weather protection, appearance for aesthetic match, efficiency, operational life, maintenance, safety of operational elements, and the continuity of existing fire ratings.
- B. Contractor shall ensure that cutting, fitting, and patching shall successfully duplicate undisturbed adjacent profiles, materials, textures, finishes, colors, and that materials shall match existing construction. Where there is dispute as to whether duplication is successful or has been achieved to a reasonable degree, the District's decision shall be final.

1.05 PAYMENT FOR COSTS:

- A. Cost caused by ill-timed or defective Work or Work not conforming to Contract Documents, including costs for additional services of the District, its consultants, including but not limited to the Construction Manager, the Architect, the Project Inspector(s), Engineers, and Agents, will be paid by Contractor and/or deducted from the Contract by the District.
- B. District shall only pay for cost of Work if it is part of the original Contract Price or if a change has been made to the contract in compliance with the provisions of the General Conditions. Cost of Work performed upon instructions from the District, other than defective or nonconforming Work, will be paid by District on approval of written Change Order. Contractor shall provide written cost proposals prior to proceeding with cutting and patching.

PART 2 - PRODUCTS

2.01 MATERIALS:

- A. Contractor shall provide for replacement and restoration of Work removed. Contractor shall comply with the Contract Documents and with the Industry Standard(s), for the type of Work, and the Specification requirements for each specific product involved. If not specified, Contractor shall first recommend a product of a manufacturer or appropriate trade association for approval by the District.
- B. Materials to be cut and patched include those damaged by the performance of the Work.

PART 3 – EXECUTION

3.01 INSPECTION:

- A. Contractor shall inspect existing conditions of the Site and the Work, including elements subject to movement or damage during cutting and patching, excavating and backfilling. After uncovering Work, Contractor shall inspect conditions affecting installation of new products.
- B. Contractor shall report unsatisfactory or questionable conditions in writing to District as indicated in the General Conditions and shall proceed with Work as indicated in the General Conditions by District.

3.02 PREPARATION:

- A. Contractor shall provide shoring, bracing and supports as required to maintain structural integrity for all portions of the Project, including all requirements of the Project.
- B. Contractor shall provide devices and methods to protect other portions of Project from damage.
- C. Contractor shall, provide all necessary protection from weather and extremes of temperature and humidity for the Project, including without limitation, any work that may be exposed by cutting and patching Work. Contractor shall keep excavations free from water.

3.03 ERECTION, INSTALLATION AND APPLICATION:

- A. With respect to performance, Contractor shall:
 - (1) Execute fitting and adjustment of products to provide finished installation to comply with and match specified tolerances and finishes.
 - (2) Execute cutting and demolition by methods that will prevent damage to other Work, and provide proper surfaces to receive installation of repairs and new Work.
 - (3) Execute cutting, demolition excavating, and backfilling by methods that will prevent damage to other Work and damage from settlement.
- B. Contractor shall employ original installer or fabricator to perform cutting and patching for:
 - (1) Weather-exposed surfaces and moisture-resistant elements such as roofing, sheet metal, sealants, waterproofing, and other trades.
 - (2) Sight-exposed finished surfaces.
- C. Contractor shall execute fitting and adjustment of products to provide a finished installation to comply with specified products, functions, tolerances,

and finishes as shown or specified in the Contract Documents including, without limitation, the Drawings and Specifications.

- D. Contractor shall fit Work airtight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces. Contractor shall conform to all Code requirements for penetrations or the Drawings and Specifications, whichever calls for a higher quality or more thorough requirement. Contractor shall maintain integrity of both rated and non-rated fire walls, ceilings, floors, etc.
- E. Contractor shall restore Work which has been cut or removed. Contractor shall install new products to provide completed Work in accordance with requirements of the Contract Documents and as required to match surrounding areas and surfaces.
- F. Contractor shall refinish all continuous surfaces to nearest intersection as necessary to match the existing finish to any new finish.

END OF DOCUMENT

ALTERATION PROJECT PROCEDURES

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, Integration of Work, Purchase of Materials and Equipment, Uncovering of Work and Non-conforming Work and Correction of Work and Trenches;
- B. Special Conditions.

PART 2 - PRODUCTS

2.01 PRODUCTS FOR PATCHING AND EXTENDING WORK:

- A. New Materials: As specified in the Contract Documents including, without limitation, in the Specifications, Contractor shall match existing products, conditions, and work for patching and extending work.
- B. Type and Quality of Existing Products: Contractor shall determine by inspection, by testing products where necessary, by referring to existing conditions and to the Work as a standard.

PART 3 - EXECUTION

3.01 EXAMINATION:

- A. Contractor shall verify that demolition is complete and that areas are ready for installation of new Work.
- B. By beginning restoration Work, Contractor acknowledges and accepts the existing conditions.

3.02 PREPARATION:

- A. Contractor shall cut, move, or remove items as necessary for access to alterations and renovation Work. Contractor shall replace and restore these at completion.
- B. Contractor shall remove unsuitable material not as salvage unless otherwise indicated in the Contract Documents. Unsuitable material may include, without limitation, rotted wood, corroded metals, and deteriorated masonry and concrete. Contractor shall replace materials as specified for finished Work.

- C. Contractor shall remove debris and abandoned items from all areas of the Site and from concealed spaces.
- D. Contractor shall prepare surface and remove surface finishes to provide for proper installation of new Work and finishes.
- E. Contractor shall close openings in exterior surfaces to protect existing work from weather and extremes of temperature and humidity. Contractor shall insulate ductwork and piping to prevent condensation in exposed areas. Contractor shall insulate building cavities for thermal and/or acoustical protection, as detailed.

3.03 INSTALLATION:

- A. Contractor shall coordinate Work of all alternations and renovations to expedite completion and to accommodate District occupancy.
- B. Designated Areas and Finishes: Contractor shall complete all installations in all respects, including operational, mechanical work and electrical work.
- C. Contractor shall remove, cut, and patch Work in a manner to minimize damage and to provide a means of restoring Products and finishes to original or specified condition.
- D. Contractor shall refinish visible existing surfaces to remain in renovated rooms and spaces, to specified condition for each material, with a neat and square or straight transition to adjacent finishes.
- E. Contractor shall install products as specified in the Contract Documents, including without limitation, the Specifications.

3.04 TRANSITIONS:

- A. Where new Work abuts or aligns with existing, Contractor shall perform a smooth and even transition. Patched Work must match existing adjacent work in texture and appearance.
- B. When finished surfaces are cut so that a smooth transition with new Work is not possible, Contractor shall terminate existing surface along a straight line at a natural line of division and make a recommendation for resolution to the District and the Architect for review and approval.

3.05 ADJUSTMENTS:

- A. Where removal of partitions or walls results in adjacent spaces becoming one, Contractor shall rework floors, walls, and ceilings to a smooth plane without breaks, steps, or bulkheads.
- B. Where a change of plane of 1/4 inch or more occurs, Contractor shall submit a recommendation for providing a smooth transition to the District and the Architect for review and approval.

- C. Contractor shall trim and seal existing wood doors and shall trim and paint metal doors as necessary to clear new floor finish and refinish trim as required.
- D. Contractor shall fit Work at penetrations of surfaces.

3.06 REPAIR OF DAMAGED SURFACES:

- A. Contractor shall patch or replace portions of existing surfaces, which are damaged, lifted, discolored, or showing other imperfections, in the area where the Work is performed.
- B. Contractor shall repair substrate prior to patching finish.

3.07 CULTIVATED AREAS AND OTHER SURFACE IMPROVEMENTS:

- A. Cultivated or planted areas and other surface improvements which are damaged by actions of the Contractor shall be restored by Contractor to their original condition or better, where indicated.
- B. Contractor shall protect and replace, if damaged, all existing guard posts, barricades, and fences.
- C. Contractor shall give special attention to avoid damaging or killing trees, bushes and/or shrubs on the Premises and/or identified in the Contract Documents, including without limitation, the Drawings.

3.08 FINISHES:

- A. Contractor shall finish surfaces as specified in the Contract Documents, including without limitations, the provisions of all Divisions of the Specifications.
- B. Contractor shall finish patches to produce uniform finish and texture over entire area. When finish cannot be matched, Contractor shall refinish entire surface to nearest intersections.

3.09 CLEANING:

- A. Contractor shall continually clean the Site and the Premises as indicated in the Contract Documents, including without limitation, the provisions in the General Conditions and the Specifications regarding cleaning.

END OF DOCUMENT

CONTRACT CLOSEOUT AND FINAL CLEANING

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, Completion of Work;
- B. Special Conditions;
- C. Temporary Facilities and Controls.

1.02 CLOSEOUT PROCEDURES

Contractor shall comply with all closeout provisions as indicated in the General Conditions.

1.03 FINAL CLEANING

- A. Contractor shall execute final cleaning prior to final inspection.
- B. Contractor shall clean interior and exterior glass and all surfaces exposed to view; remove temporary labels, tape, stains, and foreign substances, polish transparent and glossy surfaces, wax and polish new vinyl floor surfaces, vacuum carpeted and soft surfaces.
- C. Contractor shall clean equipment and fixtures to a sanitary condition.
- D. Contractor shall replace filters of operating equipment.
- E. Contractor shall clean debris from roofs, gutters, down spouts, and drainage systems.
- F. Contractor shall clean Site, sweep paved areas, and rake clean landscaped surfaces.
- G. Contractor shall remove waste and surplus materials, rubbish, and construction facilities from the Site and surrounding areas.

1.04 ADJUSTING

Contractor shall adjust operating products and equipment to ensure smooth and unhindered operation.

1.05 RECORD DOCUMENTS AND SHOP DRAWINGS

- A. Contractor shall legibly mark each item to record actual construction, including:
 - (1) Measured depths of foundation in relation to finish floor datum.
 - (2) Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permit surface improvements.
 - (3) Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.
 - (4) Field changes of dimension and detail.
 - (5) Details not on original Contract Drawings
 - (6) Changes made by modification(s).
 - (7) References to related Shop Drawings and modifications.
- B. Contractor will provide one (1) reproducible bond copy set of Record Drawings to District, as well as an electronic copy of the Record Drawings.
- C. Contractor shall submit all required documents to District and/or Architect prior to or with its final Application for Payment.

1.06 INSTRUCTION OF DISTRICT PERSONNEL

- A. Before final inspection, at agreed upon times, Contractor shall instruct District's designated personnel in operation, adjustment, and maintenance of products, equipment, and systems.
- B. For equipment requiring seasonal operation, Contractor shall perform instructions for other seasons within six months or by the change of season.
- C. Contractor shall use operation and maintenance manuals as basis for instruction. Contractor shall review contents of manual with personnel in detail to explain all aspects of operation and maintenance.
- D. Contractor shall prepare and insert additional data in Operation and Maintenance Manual when the need for such data becomes apparent during instruction.
- E. Contractor shall review contents of manual with personnel in detail to explain all aspects of operation and maintenance.

1.07 SPARE PARTS AND MAINTENANCE MATERIALS

- A. Contractor shall provide products, spare parts, maintenance, and extra materials in quantities specified in the Specifications and in Manufacturer's recommendations.

- B. Contractor shall provide District with all required Operation and Maintenance Data at one time. Partial or piecemeal submissions of Operation and Maintenance Data will not be accepted.

PART 2 – PRODUCTS Not Used.

PART 3 – EXECUTION Not Used.

END OF DOCUMENT

OPERATION AND MAINTENANCE DATA

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, Completion of the Work;
- B. Special Conditions.

1.02 QUALITY ASSURANCE:

Contractor shall prepare instructions and data by personnel experienced in maintenance and operation of described products.

1.03 FORMAT:

- A. Contractor shall prepare data in the form of an instructional manual entitled "OPERATIONS AND MAINTENANCE MANUAL & INSTRUCTIONS" ("Manual").
- B. Binders: Contractor shall use commercial quality, 8-1/2 by 11 inch, three-side rings, with durable plastic covers; two inch maximum ring size. When multiple binders are used, Contractor shall correlate data into related consistent groupings.
- C. Cover: Contractor shall identify each binder with typed or printed title "OPERATION AND MAINTENANCE MANUAL & INSTRUCTIONS"; and shall list title of Project and identify subject matter of contents.
- D. Contractor shall arrange content by systems process flow under section numbers and sequence of Table of Contents of the Contract Documents.
- E. Contractor shall provide tabbed fly leaf for each separate product and system, with typed description of product and major component parts of equipment.
- F. Text: The content shall include Manufacturer's printed data, or typewritten data on 24 pound paper.
- G. Drawings: Contractor shall provide with reinforced punched binder tab and shall bind in with text; folding larger drawings to size of text pages.

1.04 CONTENTS, EACH VOLUME:

- A. Table of Contents: Contractor shall provide title of Project; names, addresses, and telephone numbers of the Architect, any engineers, subconsultants,

Subcontractor(s), and Contractor with name of responsible parties; and schedule of products and systems, indexed to content of the volume.

- B. For Each Product or System: Contractor shall list names, addresses, and telephone numbers of Subcontractor(s) and suppliers, including local source of supplies and replacement parts.
- C. Product Data: Contractor shall mark each sheet to clearly identify specific products and component parts, and data applicable to installation. Delete inapplicable information.
- D. Drawings: Contractor shall supplement product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams. Contractor shall not use Project Record Documents as maintenance drawings.
- E. Text: Contractor shall include any and all information as required to supplement product data. Contractor shall provide logical sequence of instructions for each procedure, incorporating manufacturer's instructions.
- F. Warranties and Bonds: Contractor shall bind in one copy of each.

1.05 MANUAL FOR MATERIALS AND FINISHES:

- A. Building Products, Applied Materials, and Finishes: Contractor shall include product data, with catalog number, size, composition, and color and texture designations. Contractor shall provide information for re-ordering custom manufactured products.
- B. Instructions for Care and Maintenance: Contractor shall include Manufacturer's recommendations for cleaning agents and methods, precautions against detrimental agents and methods, and recommended schedule for cleaning and maintenance.
- C. Moisture Protection and Weather Exposed Products: Contractor shall include product data listing applicable reference standards, chemical composition, and details of installation. Contractor shall provide recommendations for inspections, maintenance, and repair.
- D. Additional Requirements: Contractor shall include all additional requirements as specified in the Specifications.
- E. Contractor shall provide a listing in Table of Contents for design data, with tabbed fly sheet and space for insertion of data.

1.06 MANUAL FOR EQUIPMENT AND SYSTEMS:

- A. Each Item of Equipment and Each System: Contractor shall include description of unit or system, and component parts and identify function, normal operating characteristics, and limiting conditions. Contractor shall

include performance curves, with engineering data and tests, and complete nomenclature, and commercial number of replaceable parts.

- B. Panelboard Circuit Directories: Contractor shall provide electrical service characteristics, controls, and communications.
- C. Contractor shall include color coded wiring diagrams as installed.
- D. Operating Procedures: Contractor shall include start-up, break-in, and routine normal operating instructions and sequences. Contractor shall include regulation, control, stopping, shut-down, and emergency instructions. Contractor shall include summer, winter, and any special operating instructions.
- E. Maintenance Requirements: Contractor shall include routine procedures and guide for trouble-shooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.
- F. Contractor shall provide servicing and lubrication schedule, and list of lubricants required.
- G. Contractor shall include manufacturer's printed operation and maintenance instructions.
- H. Contractor shall include sequence of operation by controls manufacturer.
- I. Contractor shall provide original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.
- J. Contractor shall provide control diagrams by controls manufacturer as installed.
- K. Contractor shall provide Contractor's coordination drawings, with color coded piping diagrams as installed.
- L. Contractor shall provide charts of valve tag numbers, with location and function of each valve, keyed to flow and control diagrams.
- M. Contractor shall provide list of original manufacturer's spare parts, current prices, and recommended quantities to be maintained in storage.
- N. Additional Requirements: Contractor shall include all additional requirements as specified in Specification(s).
- O. Contractor shall provide a listing in Table of Contents for design data, with tabbed fly sheet and space for insertion of data.

1.07 SUBMITTAL:

- A. Contractor shall submit to the District for review two (2) copies of preliminary draft or proposed formats and outlines of the contents of the Manual within thirty (30) days of Contractor's start of Work.
- B. For equipment, or component parts of equipment put into service during construction and to be operated by District, Contractor shall submit draft content for that portion of the Manual within ten (10) days after acceptance of that equipment or component.
- C. Contractor shall submit two (2) copies of a complete Manual in final form prior to final Application for Payment. Copy will be returned with Architect/Engineer comments. Contractor must revise the content of the Manual as required by District prior to District's approval of Contractor's final Application for Payment.
- D. Contractor must submit two (2) copies of revised Manual in final form within ten (10) days after final inspection.

PART 2 – PRODUCTS Not Used.

PART 3 – EXECUTION Not Used.

END OF DOCUMENT

WARRANTIES

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, Warranty/Guarantee Information;
- B. Special Conditions.

1.02 FORMAT

- A. Binders: Contractor shall use commercial quality, 8-1/2 by 11 inch, three-side rings, with durable plastic covers; two inch maximum ring size.
- B. Cover: Contractor shall identify each binder with typed or printed title "WARRANTIES" and shall list title of Project.
- C. Table of Contents: Contractor shall provide title of Project; name, address, and telephone number of Contractor and equipment supplier; and name of responsible principal. Contractor shall identify each item with the number and title of the specific Specification, document, provision, or section in which the name of the product or work item is specified.
- D. Contractor shall separate each warranty with index tab sheets keyed to the Table of Contents listing, providing full information and using separate typed sheets as necessary. Contractor shall list each applicable and/or responsible Subcontractor(s), supplier(s), and/or manufacturer(s), with name, address, and telephone number of each responsible principal(s).

1.03 PREPARATION:

- A. Contractor shall obtain warranties, executed in duplicate by each applicable and/or responsible subcontractor(s), supplier(s), and manufacturer(s), within ten (10) days after completion of the applicable item or work. Except for items put into use with District's permission, Contractor shall leave date of beginning of time of warranty blank until the date of completion is determined.
- B. Contractor shall verify that documents are in proper form, contain full information, and are notarized, when required.
- C. Contractor shall co-execute submittals when required.

D. Contractor shall retain warranties until time specified for submittal.

1.04 TIME OF SUBMITTALS:

- A. For equipment or component parts of equipment put into service during construction with District's permission, Contractor shall submit a draft warranty for that equipment or component within ten (10) days after acceptance of that equipment or component.
- B. Contractor shall submit for District approval all warranties and related documents within ten (10) days after date of completion. Contractor must revise the warranties as required by the District prior to District's approval of Contractor's final Application for Payment.
- C. For items of work delayed beyond date of completion, Contractor shall provide an updated submittal within ten (10) days after acceptance, listing the date of acceptance as start of warranty period.

PART 2 - PRODUCTS Not Used.

PART 3 – EXECUTION Not Used.

END OF DOCUMENT

RECORD DOCUMENTS

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, Documents on Work;
- B. Special Conditions.

PART 2 - RECORD DRAWINGS

2.01 GENERAL:

- A. As indicated in the Contract Documents, the District will provide Contractor with one (1) set of reproducible, full size original Contract Drawings.
- B. Contractor shall maintain at each Project Site one set of marked-up plans and shall transfer all changes and information to those marked-up plans, as often as required in the Contract Documents, but in no case less than once each month. Contractor shall submit to the Project Inspector one (1) set of reproducible bond copies of the Project Record Drawings ("As-Builts") showing all changes incorporated into the Work since the preceding monthly submittal. The As-Builts shall be available at the Project Site. The Contractor shall submit reproducible bond copies at the conclusion of the Project following review of the blue-line prints.
- C. Label and date each Record Drawing "RECORD DOCUMENT" in legibly printed letters.
- D. All deviations in construction, including but not limited to pipe and conduit locations and deviations caused by without limitation Change Orders, Construction Claim Directives, RFI's, and Addenda, shall be accurately and legibly recorded by Contractor.
- E. Locations and changes shall be done by Contractor in a neat and legible manner and, where applicable, indicated by drawing a "cloud" around the changed or additional information.

2.02 RECORD DRAWING INFORMATION:

- A. Contractor shall record the following information:

- (1) Locations of Work buried under or outside each building, including, without limitation, all utilities, plumbing and electrical lines, and conduits.
- (2) Actual numbering of each electrical circuit to match panel schedule.
- (3) Locations of significant Work concealed inside each building whose general locations are changed from those shown on the Contract Drawings.
- (4) Locations of all items, not necessarily concealed, which vary from the Contract Documents.
- (5) Installed location of all cathodic protection anodes.
- (6) Deviations from the sizes, locations, and other features of installations shown in the Contract Documents.
- (7) Locations of underground work, points of connection with existing utilities, changes in direction, valves, manholes, catch basins, capped stubouts, invert elevations, etc.
- (8) Sufficient information to locate Work concealed in each building with reasonable ease and accuracy.

In some instances, this information may be recorded by dimension. In other instances, it may be recorded in relation to the spaces in the building near which it was installed.

- B. Contractor shall provide additional drawings as necessary for clarification.
- C. Contractor shall provide reproducible record drawings, made from final Shop Drawings marked "No Exceptions Taken" or "Approved as Noted."
- D. After review and approval of the marked-up specifications by the Project Inspector, Contractor shall provide electronic copies of the drawings (in PDF format) with one file with all of the sheets and one set of individual sheet files at the conclusion of the Project. Contractor shall also provide one (1) set of reproducible bond copies of the drawings.

PART 3 - RECORD SPECIFICATIONS

3.01 GENERAL:

- A. Contractor shall mark each section legibly to record manufacturer, trade name, catalog number, and supplier of each Product and item of equipment actually installed.
- B. After review and approval of the marked-up specifications by the Project Inspector, Contractor shall provide one electronic copy of the specifications (in PDF format) at the conclusion of the Project.

PART 4 - MAINTENANCE OF RECORD DOCUMENTS

4.01 GENERAL

- A. Contractor shall store Record Documents apart from documents used for construction as follows:
 - (1) Provide files and racks for storage of Record Documents.
 - (2) Maintain Record Documents in a clean, dry, legible condition and in good order.
- B. Contractor shall not use Record Documents for construction purposes.

PART 5 – PRODUCTS Not Used.

END OF DOCUMENT

SELECTIVE BUILDING DEMOLITION

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. Remove materials, systems, components, fixtures and equipment as designated and as required for completion of remodeling work indicated.
- B. Coordinate selective demolition for remodeling with mechanical civil, structural and electrical demolition; cap and identify active utilities where not otherwise identified under Division 15 and 16 work.
- C. Contractor shall make efforts to recycle demolished materials rather than landfill materials. Architect will provide a list of recycling companies and locations upon request.

1.02 RELATED WORK

- A. See Hazardous Material Abatement documents by School District's Consultant prior to initiating any demolition.
- B. Section 01045: Cutting and patching
- C. Section 01500: Construction facilities.
- D. Section 15100: General Mechanical.
- E. Section 16010: Electrical General Provisions

1.03 SUBMITTALS

- A. Submit the following in accordance with Section 01300.
 - 1. Permit for transport and disposal of debris.
 - 2. Demolition procedures and operational sequence for review and acceptance by Architect.
- B. Reports: Submit typewritten reports of surveys conducted with the Owner before and after performance of demolition operations.
- C. Salvageable Items: Submit typewritten list of items to be salvaged, for Owner's approval.

1.04 QUALITY ASSURANCE

- A. Perform demolition in conformance with ANSI A10.6.

1.05 EXISTING CONDITIONS

A. Site Surveys:

1. Prior to start of demolition operations, conduct survey of existing conditions as specified in Section 01010. On such survey, list items specified and indicated to be salvaged.
2. Following performance of demolition, inspect and report defects and structural weaknesses of construction and improvements partially demolished, cut, and removed; of construction and improvements remaining; and of adjacent construction and improvements.

- B. Protection: Protect the structural integrity of existing construction and improvements to remain.

1.06 PROTECTION

- A. Do not interfere with use of adjacent building spaces; maintain free and safe passage to and from.

1. Cover and protect existing materials when demolition work is performed in areas where existing materials have not been removed.

- B. Prevent movement of adjacent construction, provide and place bracing and be responsible for safety and support of adjacent construction.

1. Assume liability for such movement, damage and injury.

- C. Cease operation and notify Architect immediately if safety of structure appears to be endangered; take precautions to properly support structure.

1. Do not resume operation until safety is restored.

1.07 EXISTING SERVICES

- A. Disconnect or remove utility services as required for completion of Project; disconnect, stub off, and cap utility service lines not required for new construction.

1. Do not remove utilities discovered during demolition but not indicated without first determining purpose for utility.

- B. Do not disrupt services to adjacent building areas not in Project.

- C. Place markers to indicate location of disconnected services; identify service lines and capping locations on Project Record Documents.

PART 2 - PRODUCTS

2.01 MATERIALS

A. General:

1. Remove and recycle or dispose of items and materials not designated to be salvaged. Disposal shall be at the legal dump site for the material to be disposed.
2. If, in the course of removing designated items and materials, the condition of other materials or the structure so exposed appears to be damaged or of otherwise questionable condition, immediately notify the Architect, who will determine if the other materials or structure shall be removed, and if so to what extent.
3. Recycle or dispose of removed items and materials not indicated or designated for salvage.
4. Nothing to be removed from the site shall be stored, sold, or burned on the site without the Owner's prior written consent.
5. Remove and recycle or dispose of all debris found in each unit at start of work.

B. Items to be Salvaged:

1. Carefully remove materials indicated to be retained by Owner; deliver and store where directed.
 - a. Coordinate extent of existing materials to be retained by Owner with Owner's Representative prior to beginning selective demolition.
2. Carefully disconnect, remove, and protect items indicated and designated to be salvaged, as well as any additional items so directed by the Architect.
3. Package salvaged items that are in satisfactory condition for reinstallation in cardboard and label as to contents. Should a question arise as to whether or not certain items are of suitable condition for reinstallation, consult the Architect for determination.
4. Deliver salvaged items at time and to location directed by the Owner.
5. Reinstall salvaged items in locations indicated, or as designated by the Architect.
6. Salvaged items not indicated or designated for reinstallation in the Work shall remain in storage.

7. Obtain approved list of items to be salvaged, prior to beginning demolition operations. Salvage the following items unless otherwise indicated or directed by the Architect, and transport items to storage site designated by the Contracting Officer:
 - a. Toilets.
 - b. Faucets, removed from sinks.
 - c. Lavatories.
 - d. Toilet partition hardware.
 - e. Exterior and interior doors and hardware; tag hardware and identify.
 - f. Window operating hardware and hinges.
 - g. Smoke detectors.
 - h. Light fixture lenses and globes.
 - i. Bronze thresholds at entry doors.
 - j. Doors and hardware.
8. Salvaged items rejected by the Contracting Officer shall become the Contractor's property.

C. Mechanical Items Intended for Demolition: Specified in Section 15100.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Verify that conditions are satisfactory for beginning selective building demolition. If unsatisfactory conditions exist, do not begin demolition operations until such conditions have been corrected.

3.02 PREPARATION

- A. Prior to start of demolition operations, prepare a proposed layout and sequence for the Work; coordinate with related Work which requires cutting and sawing.
- B. Review proposed layout and sequence with the Owner and Architect prior to starting demolition operations.
- C. Cap and protect utility lines prior to start of demolition operations.

3.03 GENERAL

- A. As demolition progresses, continuously inspect for damage. Should signs of damage arise, immediately notify the Architect, and stop demolition operations in the affected location until advised as to how to proceed.
- B. Remove items designated for demolition, and as required for the performance of the Work. If in doubt as to whether an item is to be demolished, contact the Architect for a decision prior to proceeding with its demolition.

- C. Remove items carefully; provide for neat and structurally sound junctions between existing and new materials.
- D. Remove all wood members damaged with dry rot to at least 2'-0" beyond apparent damage into sound wood.
- E. As applicable, remove miscellaneous items and fastenings associated with items to be demolished.
- F. Demolish concrete in small sections.
- G. No blasting shall be permitted.
- H. Clean surfaces affected by the demolition operations of all residual adhesives, bitumen, and other adhering materials, as required to afford suitable substrates for the application of new materials.
- I. Demolish indicated appurtenances in an orderly and careful manner.
 - 1. Use methods which do not damage materials indicated to remain.
 - 2. Cut concrete and masonry using masonry saws and hand tools; provide sharp clean cuts requiring minimal patching for new construction.
 - 3. Use impact tools only where specifically approved in advance for areas where operations do not disturb building occupancy.
- J. Perform demolition in accordance with authorities having jurisdiction.
- K. Remove demolished materials from site, unless otherwise directed.
 - 1. Remove from site, contaminated, vermin infested, and dangerous materials encountered and disposed of by safe means so as not to endanger health of workers or public.
- L. Remove tools and equipment upon completion of work; leave area in condition acceptable to Architect.

3.04 CUTTING AND CORING

- A. Make new openings neat, as close as possible to profiles indicated, and only to the extent required to accommodate new Work.
- B. Do not cut or alter structural members without the prior written consent of the Architect.
- C. At concrete, masonry, and other materials where edges of cuts and holes will remain exposed in the completed Work, perform cutting and coring with power equipment.

3.02 REPAIR

- A. Repair damage to adjacent construction caused as result of this work.

END OF DOCUMENT

ROUGH CARPENTRY

PART 1 GENERAL

1.01 WORK INCLUDED

- A. Provide miscellaneous wood backing as indicated and as required for completion of Project as indicated.
- B. Provide plywood panel boards.
- C. Provide miscellaneous wall, floor, and ceiling framing where required.
- D. Preservative treated / fire-retardant treated wood members as indicated.

1.02 RELATED SECTIONS

- A. Section 06400: Architectural Woodwork
- B. Section 07262: Building Papers

1.03 QUALITY ASSURANCE

A. Regulatory Agencies:

- 1. Rough carpentry shall conform to the 2013 California Building Code (CBC) Title 24, Part 2, Chapter 23.
- 2. Framing anchors and powder driven fasteners shall be furnished and installed in accordance with the manufacturer's current ICC Evaluation Report.

Lumber: Provide visible grade stamp of an agency certified by NFPA.

B. Grade Marks:

- 1. Identify each piece of structural lumber, including timber 4 inches by 4 inches in size and larger, by the official grade mark of WCLIB, or WWPA. Provide qualified lumber grader at the site to stamp members that are not mill stamped.
- 2. Identify plywood by the official grade mark of APA.
- 3. Identify pressure preservative treated lumber and plywood with the official grade make of AWPA. Grade stamp shall state retention; statements on grade stamp such as "or to refusal" are not permitted.
- 4. Identify fire treated lumber with appropriate classification marking of Underwriters Laboratories, Inc., U.S. Testing, Timber Products Inspection or other testing and inspection agencies acceptable to the State Fire Marshall.

- C. Lumber Standard: Comply with US Product Standard PS20 for each indicated use, including moisture content and actual sizes relate to indicated nominal sizes.
- D. Qualifications for Pneumatic (Machine) Nailing: Pneumatic (machine) mailing shall be subject to a satisfactory Project Site demonstration and approval by the Architect and the Division of the State Architect (DSA). The approval is subject to continued satisfactory performance.

1.04 REFERENCES

- A. The editions of the specifications and standards referenced herein, published by the following organizations:

National Forest Products Association (NFPA) National Design Specification for Stress Grade Lumber and its Fastening.
American Plywood Association (APA)
American Society for testing and Materials (ASTM)
American Wood-Preservers' Association
US Department of Commerce Product Standard (PS)
West Coast Lumber Inspection Bureau (WCLIB)
Western Wood Products Association (WWPA)

1.05 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Copies of current ICC Evaluation Reports for the framing anchors, powder driven fasteners, and expansion anchors.
- C. Wood Treatment Data: Wood treatment certification and instructions for proper use of each type of treated material. Fire-retardant treatment product fire test data.
- D. Shop Drawings: Where rough carpentry is required by other sections of the Specifications, include rough carpentry items in the shop drawings for items specified in other Specification sections. Rough carpentry shop drawings to include details of fabrication and installation, dimensioned plans, elevations, sections, details and methods of attachment including backing and nailers. Reference architectural details, plans, sections and elevations. Indicate adjacent construction.

1.06 DELIVERY, STORAGE, AND HANDLING:

- A. Deliver materials to the site in an undamaged condition.
- B. Store lumber and plywood at the site under cover or otherwise protected against exposure to weather, raised above the ground and out of contact with other damp or wet surfaces. Stack lumber and plywood and provide for air circulation within and around the stacks and under temporary coverings. For pressure

treated lumber and plywood, provide spacers between courses to permit air circulation.

- C. For materials stored on suspended floors, store materials in a manner that will not overload the floor or exceed its structural capacity. Verify capacity of existing and new floor construction. Engage the services of a professional engineer to review and assess proposed storage of materials on suspended floors as required.

PART 2 PRODUCTS

2.01 GENERAL

- A. Rough carpentry work and miscellaneous items and their related components are not necessarily individually described. The most important features and those requiring detail descriptions are mentioned. Furnish rough carpentry work and miscellaneous items not mentioned or described and install in accordance with intent of the drawings and specifications and as required to complete the work.
- B. Pressure-preservatives are to be used on all wood in contact with concrete or masonry, exposed to the weather, or prone to insect attack, in conjunction with roofing, under parapet caps, vapor barriers and waterproofing – sills, sleepers, furring, blocking, and stripping).
- C. No wood products treated with (a) pentachlorophenol, (b) arsenic compounds, and/or (c) creosote shall be used. For exterior applications, provide wood treated with Alkaline/Copper/Quaternary (ACQ), waterborne preservative system containing no arsenic and no chromium and complying with AWWPA Standard U1 and T1. Provide Chemical Specialties 800.421.8661 "ACQ Preserve", Wolman E Copper Azole; Architectural Treatment Technologies, Inc.; Universal Forest Products, Inc. or approved equal. For interior applications and wood in contact with concrete, provide Borate treatment.

2.02 LUMBER

- A. Lumber Standards: Manufacture lumber to comply with PS 20-94 "American Softwood Lumber Standard" and with applicable grading rules of inspection agencies specified herein.
- B. Moisture Content at Time of Placing:
 - 1. Untreated Lumber: Maximum 15 percent.
 - 2. Treated Lumber: Maximum 15 percent.
- C. Virgin redwood is not permitted.

- D. Sizing and Surfacing: Sizes indicated are nominal; provide actual sizes in accordance with PS 20-94. Provide dressed lumber, S4S except as otherwise indicated.
- E. Dimensional Lumber: Provided lumber of the grades and species listed below for the various purposes, graded in accordance with WCLIB "Standard Grading Rules No. 17" or WWPA "Western Lumber Grading Rules 98."
 - 1. Cants, Roof Nailers, and Roof Curbs: Standard or better grade Light Framing; No.2 or better grade Structural Light Framing; or Stud grade of and commercial softwood species. All lumber used for cants, roof nailers, and roof curbs shall be pressure preservative treated.
 - 2. Sill Plates: No.1 Grade, or better, pressure preservative treated Douglas Fir / Larch.
 - 3. Blocking, Nailers, and Bracing: Standard or better grade Light Framing; No.2 or better grade Structural Light Framing; or Stud grade of and commercial softwood species.
 - 4. Studs and Top Plates: No.1 Grade Douglas Fir / Larch.
 - 5. Joists, Headers, and Ledgers: No. 1 or better grade Joists and Planks of Douglas Fir / Larch.
 - 6. Beams, Girders, and Stringers: No. 1 Grade Beams and Stringers of Douglas Fir/Larch.
 - 7. Columns and Posts: No.1 Grade Posts and Timbers of Douglas Fir / Larch.

2.03 PLYWOOD

- A. Plywood Standards: Manufacturer plywood to comply with PS 1-83 "U.S. Product Standard for Construction and Industrial Plywood."
- B. Shear Walls: APA Rated Sheathing, Structural I, Exposure 1 durability classification, minimum thickness 1/2 inch unless otherwise indicated.
- C. Wall Sheathing: APA Rated Sheathing, C-D grade, Exposure 1 durability classification, 1/2 inch thick, unless otherwise indicated.
- D. Roof Sheathing: APA rated, B-C grade, preservative treated, exterior exposure durability classification. Minimum thickness 3/4 inch unless otherwise indicated.
- E. Subflooring: APA rated C-D grade, exterior exposure durability classification. Minimum thickness 3/4 inch unless otherwise indicated.

- F. Plywood Backing Panels: For mounting electrical or telephone equipment, provide fire-retardant-treated plywood panels designation, A-B grade, exposure 1 durability classification, 3/4 inch thick unless otherwise indicated.

2.04 MISCELLANEOUS MATERIALS

- A. Building Paper: As specified in Section 07262 Building Papers.
- B. Hardware: Furnish items of rough hardware, connections, bolts, required to complete the work.
 - 1. Where carpentry work is exposed to weather, in ground contact, or in areas of high relative humidity, provide nails, bolts, nuts, washers, and other fasteners with a hot-dipped zinc coating in accordance with ASTM A 153-00.
 - 2. Nails: Conform to Federal Specifications FF-S-606 and FF-N-105. Non-exposed to framing nails shall be steel common wire nails (not box nails or sinkers). Nails are to be stainless steel at pressure-treated lumber.
 - 3. Bolts: Grade A, conforming to ASTM A307.
 - 4. Washers: Washers for bearing against wood shall be provided under all bolt heads and nuts. Malleable iron or steel plate having an area equal to 16 times the area of bolt or lag screw. Steel washers shall have a thickness of not less than 1/10 the length of the washer's longest side. Malleable iron washers shall have a thickness of not less than one-half the bolt or lag screw diameter and having a bearing surface for the nut or head equal in diameter to not less than the long diameter of the nut or head.
 - 5. Powder Driven Fasteners: Provide fastener systems complete with all necessary washers, nuts, and other appurtenances. Acceptable manufacturers or equal: Hilti, Inc.; Powder Power Tool Corp., Drive-It; Ramset Fastening Systems, Ramset.
 - 6. Expansion Anchors: Provide wedge type anchor systems complete with all necessary washers, nuts, and other appurtenances. Acceptable manufacturers include Hilti, Inc., Simpson Strong Tie, or approved equal. At concrete, provide Kwik Bolt TZ; Hilti [ICC ESR 1917], Strong Bolt Wedge Anchors; Simpson Strong Tie [ICC ESR 1771], or approved equal. At grouted concrete masonry, provide Kwik Bolt 3; Hilti [ICC ESR 1385], or Wedge All Anchors; Simpson Strong Tie [ICC ESR 1396], or approved equal.
- C. Framing Connectors: Fabricated sheet metal timber framing connectors shall be manufactured from hot-dipped galvanized steel by Simpson Strong Tie Company Inc., K.C. Metal Products; Union Steel Connectors, or approved equal, and as identified on the Drawings. Connectors shall be a least 16-gage material (1/8 inch plate materials where welded), unless otherwise noted, punched for nailing. Nails and nailing shall conform to the manufacturer's instructions with a nail provided for each punched hole.

2.05 WOOD TREATMENT

- A. Preservative Treatment: Treat lumber and plywood to comply with applicable requirements of AWPA C2. Incising of Douglas fir will be required where necessary to achieve the specified retention. Complete fabrication of treated items before treatments, where possible. Cuts and holes shall be retreated in accordance with AWPA H-84.
- B. Fire Retardant Treatment: Comply with AWPA standards for pressure impregnation with fire-retardant chemical to achieve flame-spread rating of not more than 25 in accordance with ASTM E84 or UL Test 723.
 - 1. Treat blocking and plywood panel boards; comply with AWPA C20 and C27, Interior Type A, and identify with FRTW.
 - a. Exterior Type: Where indicated for exterior applications, provide fire treated wood passing ASTM D2898 rain test.
 - 2. Provide UL label on each piece of fire-retardant wood and plywood.
 - 3. Kiln-dry treated items to maximum moisture content of 15 percent.
- C. Complete fabrication of treated items prior to treatment, wherever possible; if cut after treatment, coat cut surfaces with heavy brush coat of same chemical used for treatment.
- D. Inspect each piece after drying and discard damaged and defective pieces.

PART 3 EXECUTION

3.01 GENERAL REQUIREMENTS

- A. All framing operations shall conform to the requirements of the CBC.
- B. Set horizontal and sloped members with crown up. Do not notch, bore or cut members for pipes, ducts, conduits or any other reason except as shown on the drawings or as specifically approved by the Architect/Engineer. Make all bearings full and all blocking solid unless otherwise indicated on the drawings. Finish all bearing surfaces on which structural members are to rest so as to give sure and even support. Where framing members slope, cut or notch the ends as required to give uniform bearing surface.
- C. Remove all wood, including form lumber, scrap lumber, shavings and sawdust in contact with ground. Leave no wood buried in any fill or backfill.
- D. Lumber not grade stamped, and lumber of improper grade, shall be removed from the job site and immediately replaced by grade stamped lumber of the proper grade.

- E. Other materials: All other lumber materials, not specifically described but required for the proper completion of the work, shall be new, first quality of their respective kinds and subject to the approval of the Architect or Structural Engineer and the Division of the State Architect.
- F. Predrill holes as required to prevent splitting.
- G. Mount plywood so the manufacturer's stamps remain visible from the front side.

3.02 PLACEMENT

- A. Place rough carpentry true to lines and levels.
- B. Correlate location so attached work will comply with design requirements and be properly located.
- C. Construct members of continuous pieces of longest possible lengths.
- D. Fit carpentry work to other work; scribe and cope as required for accurate fit.
- E. Achieve full bearing on concrete or masonry by smooth concrete or by setting in wet grout.
- F. Securely attach carpentry work to substrates by anchoring and fastening as required by recognized standards.
 - 1. Provide washers under bolt heads and nuts in contact with wood.
- G. Wood Blocking: Provide blocking lumber not less than 1 1/2" wide and of thickness required to provide adequate support or to properly locate attached material. Install backing/blocking per plan details at all locations noted on plans.
 - 1. Provide attachment to other work: form to shapes shown.
 - 2. Countersink bolts and nuts flush with surfaces.
 - 3. Remove temporary blocking when no longer needed.
 - 4. Anchor to formwork before concrete placement.
- H. Plywood Structural Sheathing:
 - 1. Plywood thickness and nailing shall be as required on the Drawings. All nails shall be common wire nails.
 - 2. Block all unsupported edges of plywood sheets; blocking shall be minimum 2 x 3 between framing members.
 - 3. Minimum sheet width shall be 16 inches.

4. Fasten plywood backboards to the structural members of the building using only approved fasteners. Plywood backboards shall not be anchored to gypsum wallboard.

END OF DOCUMENT

ARCHITECTURAL WOODWORK

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. Provide finish wood trim and mill fabricated architectural woodwork at exterior window and doors

1.02 RELATED WORK

- A. Section 06100: Rough Carpentry.

1.03 REFERENCES

- A. The editions of the specifications and standards referenced herein, published by the following organizations, apply to the work only to the extent specified by the reference.

- American Society for Testing and Materials (ASTM)
 - National Electrical Manufacturers' Association (NEMA)
 - U.S. Department of Commerce
 - Woodwork Institute (WI)

1.04 SUBMITTALS

- A. Submit the following in accordance with Section 01300.
- B. Shop Drawings: Indicate materials and wood species, sizes, sections, component profiles, fastening, joining details, finishes, and accessories.
 - 1. Certification: Provide WI Certified Compliance Label on shop drawings.
- C. Indicate grounds, backing, blocking, sleepers and other items required for the installation of cabinet work which are to be furnished and installed as part of the structure.
- D. Certification: WI certification is required.
 - 1. Before delivery to jobsite, provide WI Certified Compliance Certificate indicating grade of millwork products to be furnished and certify WI requirements for specified grades shall be met.

E. Samples:

1. Wood: Submit lumber and venner showing Species and cut, with factory applied transparent finish.

1.05 QUALITY ASSURANCE

- A. Regulatory Requirements: Wall hung cabinets and floor supported cabinets over 5 feet high shall be braced and anchored in accordance with the 2001 California Building Code (CBC) Title 24, Part 2, Table 16-0.
- B. Certificate of Compliance: Before delivery to the project site, issue a WI Certified Compliance Certificate, certifying that the cabinets, casework and countertops meet requirements of WI Grade specified. Further, label each unit of plastic laminate countertop with the Certified Compliance Grade label indicating WI Grade specified.
 1. Upon completion of installation issue a WI Certified Compliance Certificate for installation.

1.06 DELIVERY, STORAGE AND HANDLING

- A. Do not deliver architectural woodwork until site conditions are adequate to receive work. Casework shall be delivered with label on each elevation. Provide a clean storage area as required by WI Manual of Millwork, Section 1 – General Information. Protect items from weather while in transit.

PART 2 - PRODUCTS

2.02 MATERIALS

- A. New Painted Finished Casing trim – At interior face of exterior window and doors:
 1. Replace-in-kind. See drawings.

2.03 FABRICATION

- A. Casing trim: Fabricate to meet WI Construction Styles A Framelss Construction and per details. Provide finished ends of either applied sills or integral members on exposed ends. Close gaps at walls with caulking.

2.04 SHOP FINISHING

- A. Quality Standard: Comply with WI Manual of Millwork, Section 5.
- B. Painted Finish: AWI Finish System #4, water-reducible acrylic lacquer.
 - 1. Sheen: Satin 31-45 gloss units measured on 60 degree gloss meter in accordance with ASTM D 523-89 (1999).

PART 3 - EXECUTION

3.01 INSTALLATION

- A. General: Install work as specified in WI Manual of Millwork (and provide a WI Certified Compliance Certificate for installation as specified herein).
- B. Install plumb, level, true and straight with no distortions. Shim as required using concealed shims. Scribe and cut for accurate fit.
- C. Ensure mechanical and electrical items affecting architectural woodwork are properly placed, complete, and have been inspected by the Architect prior to commencement of installation.
- D. Secure to ground, stripping, blocking with countersunk, concealed fasteners. Install without distortion so that doors and drawers fit openings and are accurately aligned.
- I. Scribe and cut for accurate fit to other finished work.
- J. Install architectural woodwork under supervision of factory-trained mechanics.
- K. Attach architectural woodwork securely in place with uniform joints providing for thermal and building movements.
- L. Acceptable Tolerances:
 - 1. Variation from True Position: Maximum 1/16" at any position and maximum 1/8" in any 10'-0" length.
 - 2. Adjoining Surfaces of Same Material: No variation permitted.
 - 3. Offset with Abutting Materials: Maximum 1/32".

3.02 CLEAN-UP:

- A. Take necessary action to keep this work clean and free of dirt, trash, obstruction and equipment, except that necessary for the proper completion of this work. Remove materials not used.

END OF DOCUMENT

BUILDING PAPERS

PART 1 - GENERAL

1.01 DESCRIPTION

- A. This Section describes the requirements for furnishing and installing building papers under exterior cement plaster.
- B. Related Sections:
 - 1. Plywood sheathing is specified in Section 06100.
 - 2. Sheet metal flashing and trim is specified in Section 07600.
 - 3. Modified bituminous sheet flashing is specified in Section 07651.
 - 4. Window and door flashing is specified in Section 07652.
 - 5. Joint sealers are specified in Section 07900.
 - 6. Lath and plaster is specified in Section 09200.

1.02 QUALITY ASSURANCE

- A. Comply with CBC Section 1402.1.

1.03 JOB CONDITIONS

- A. Surfaces to receive building papers and flashing membrane shall be free from projecting screws, wires, or other conditions that might damage paper.
- B. Surfaces to be covered shall be dry, and shall have dried in fair weather not less than 3-days following wetting by rain or otherwise.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Building Paper: Fortifiber Corporation "Super Jumbo Tex 60" or approved equal (no know equal) Grade D kraft paper having a 60-minute water permeance rating, complying with UBC Standard 14-1.
- B. Fastenings:
 - 1. Screws, staples, or tie wire, suitable for framing or backing.
 - 2. Pressure-sensitive tape and/or adhesive may be utilized where appropriate and effective.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Remove dust, dirt, loose fasteners and other projections.

3.02 BUILDING PAPER INSTALLATION

- A. Installation Type: Double-layer installation over plywood sheathing and under exterior cement plaster.
- B. Openings and Penetrations: Flash with modified bituminous sheet flashing membrane as specified in Section 07651 and 07652.
- C. Utilize building papers in longest lengths practical to minimize joints.
- D. Horizontal Joints: Lap papers not less than 2-inches and waterproof flashing membrane not less than 3-1/2-inches wide.
- E. Wall Corners: Wrap papers to overlap not less than 12-inches each side of corner.
- F. Intermediate Vertical Joints:
 - 1. Lap building papers and waterproof flashing membrane not less than 6-inches.
 - 2. In adjacent sheets, offset joints not less than 48-inches.
 - 3. In alternate sheets, offset joints not less than 24-inches.
 - 4. Do not locate any two joints at same vertical alignment.
- G. Lap building papers overhead flashings and base flashings and under sill flashings. Treat penetrations and other details as necessary for adequate weather protection.
- H. Secure papers to maintain in place until covered by other materials.
- I. When complete, building papers shall be reasonably flat, without excessive warps and bulges, and free from unnecessary holes, cuts, tears, and other damage and defects.

END OF DOCUMENT

BUILDING PAPERS

PART 1 - GENERAL

- A. General Conditions of the Contract and Division 1, as indexed, apply to this Section.

1.01 DESCRIPTION:

- A. Work Included: Provide all flashing and sheet metal required to prevent penetration of water through exterior shell of the building complete, in place, as shown on the Drawings, specified herein and required for a complete and proper installation. Sheet metal work not specifically required under other Sections but indicated on the Drawings, shall be furnished and installed under this Section, except as otherwise specified herein. Work to be provided includes, but is not necessarily limited to:

- 1. Flashings, reglets and counterflashings
- 2. Vent pipe penetration flashings
- 3. In-fill pans at roof areas adjacent to seismic joints

- B. Related Sections:

- 1. Building papers are specified in Section 07262.
- 2. Modified bitumen roofing is specified in Section 07550.
- 3. Modified bituminous sheet flashing is specified in Section 07651.
- 4. Window and door flashing is specified in Section 07652.
- 5. Joint sealers are specified in Section 07900.
- 6. Exterior cement plaster is specified in Section 09200.
- 7. Painting of flashing and sheet metal is specified in Section 09900.
- 8. Wall louvers are specified in Section 10200.

1.02 REFERENCE SPECIFICATIONS:

- A. Sheet Metal and Air Conditioning Contractors National Association (SMACNA): Architectural Sheet Metal Manual, current edition, for general specifications, materials and workmanship not otherwise shown on the Drawings or specified herein.
- B. American Society for Testing and Materials (ASTM) Publications
- C. National Roofing Contractor's Association (NRCA) "Roofing and Waterproofing Manual"

1.03 COOPERATION WITH OTHER TRADES:

- A. Carefully coordinate work of this Section with that of all other trades to ensure that the work will be carried out in an orderly and complete fashion.

1.04 QUALITY ASSURANCE:

- A. Standards: Comply with standards specified in this Section as listed in Section 01400.
- B. Qualifications of Manufacturers: Products used in the work of this section shall be produced by manufacturers regularly engaged in manufacture of similar items and with a history of successful production acceptable to the Architect.
- C. Qualifications of Installers: All flashing shall be fabricated and installed by flashing and sheet metal contractors with 10 years of more experience of successful installation of the specified flashing systems in the San Francisco Bay Area.

1.05 SUBMITTALS:

- A. General: Comply with provisions of Section 01300. Submit the following:
 - 1. Complete materials list of all items proposed to be furnished and installed under this Section.
 - 2. Manufacturer's specifications and other data required to demonstrate compliance with the specified requirements.
 - 3. Complete sheet metal shop drawings for all fabricated sheet metal work. Clearly indicate component profiles, layout, joints, dimensions, transitions, fastening methods, and relationship of flashing materials to deck, waterproofing membranes, and other adjacent construction.

1.06 PRODUCT HANDLING:

- A. Deliver all materials included in this Section to the job site, and store in a manner that will prevent damage or deformation. Use all means necessary to protect materials of this Section before, during, and after installation and to protect installed work and materials of all other trades.
- B. Replacements: In the event of damage, immediately make all repairs and replacements necessary to the approval of the Architect and at no additional cost to the Owner.
- C. Remove any protective plastic surface film immediately after installation.

1.07 WARRANTY

- A. Contractor Warranty: Submit a written agreement signed by the installer and the Contractor, guaranteeing to correct failures. In addition to the general guarantee for the entire contract, furnish to the District a written guarantee that the flashing installation shall be watertight and free of defects in materials and workmanship for a period of two (2) years after the date of Notice of Completion. In addition, flashings associated with roofing shall be further guaranteed for a period equal to the roofing warranty specified. Provisions of the warranty must cover defects in workmanship. In addition, the Contractor shall agree to undertake any Submit per specification 01740 Warranties.

PART 2 - PRODUCTS

2.01 DESIGN:

- A. Standard commercial items may be used for flashing, trim, and reglets, provided all such items meet or exceed the quality standards specified herein.
- B. Quality Standards: In addition to complying with all pertinent codes and regulations, comply with all pertinent recommendations contained in "Architectural Sheet Metal Manual", current edition, of the Sheet Metal and Air Conditioning Contractors National Association.

2.02 MATERIALS AND GAUGES:

- A. Where sheet metal is required, and no material or gauge is indicated on the Drawings, provide the normal quality and gauge commensurate with the referenced standards. In no case shall sheet metal be less than 22 gauge.
- B. Copper: Copper shall not be used for fascias, gutters, gravel stops and similar sheet metal items.
- C. Aluminum: In-fill pans at roof areas adjacent to seismic joints shall be aluminum 5005-H14, alloy and temper in accordance with the requirements of ASTM B 209-01
 - 1. Thickness: 0.090-inch minimum; thickness as required to maintain a flat appearance without visible deflections.

2.03 GALVANIZED IRON:

- A. Sheet Stock: Conform to ASTM A 525, designation G90, galvanized .2% copper bearing steel sheet, 24 gauge minimum thickness, unless otherwise noted.

B. Zinc Coating: All galvanized sheets shall have a zinc coating applied by hot-dip process to all surfaces. Zinc coating shall weigh not less than 1-1/4 oz. per sq. ft. nor more than 1-1/2 oz. per sq. ft. of surfaces covered and shall conform with ASTM A 93.

C. Lead Sheet: ASTM B-749, L50049 Grade.

2.04 FASTENINGS:

A. Copper bearing steel; tinned finish for rivets; galvanized non-corrosive finish for other items (screws, nails, bolts, washers, etc.).

B. Sealing Screws: Stainless Steel with neoprene and stainless washer. By Hilti, 10-12 x1 HWH Tapfast with flo-seal head.

2.05 EXPANSION SHIELDS:

A. Commercial standard, wedge anchor type requiring drilled holes. Lead and plastic are not acceptable.

2.06 FELTS:

A. ASTM D, Type 1 (perforated), Class A (15 pound).

2.07 FLUX:

A. Raw muriatic acid.

2.08 SOLDER:

A. ASTM B 32.

2.09 BLACK PLASTIC CEMENT:

A. ASTM D 4586, Type I, asbestos free.

2.10 GALVANIZED TOUCH-UP:

A. "Galvicon" by Galvicon Corp., or

B. "Drygalv" by Anchor Brand Co.

2.11 VENTS:

A. All vents to be manufactured to design shown for the intended use. Provide insect screens for all vents.

2.12 BITUMINOUS COATING:

A. Solvent-type Bituminous Mastic, free of sulfur, 15 mil dry film thickness per coat.

2.13 BLACK PLASTIC CEMENT:

- A. ASTM D4586, Type 1 (Asbestos free).

2.14 ADHESIVES SEALANTS:

- A. Use only as recommended by Manufacturer.

2.15 REGLET AND COUNTERFLASHING SYSTEM:

- A. For cast in place installations, reglet type CW- concrete with fastening block and EPDM wedge gasket by O'keefes Inc. Counterflashing shall be type 2 profile, 22 gage galvanized sheet metal.

2.16 IN-FILL PANS AT ROOFS ADJACENT TO SEISMIC JOINT:

- A. Materials: in-fill pans at roof areas adjacent to seismic joints shall be aluminum 5005-H14,
- B. alloy and temper in accordance with the requirements of ASTM B 209-01
 - 1. Thickness: 0.090-inch minimum; thickness as required to maintain a flat appearance without visible deflections.
- C. Fasteners, nuts, bolts, clips, screws and other miscellaneous hardware items shall be non-magnetic, Type 316 stainless steel (18-8).
- D. Finish: Minimum two-coat, coil coated, baked epoxy, thermo-cured coating, full-strength 70 percent "Kynar 500" complying with AAMA 605.2, 8 mils each coat, custom color to match color sample furnished by the Architect. Finish shall have been field tested under normal range of weathering conditions for minimum of 20 years without significant peel, blister, flake, chip, crack, or check in finish; without chalking in excess of No. 8 in accordance with ASTM D659; and without fading in excess of 5 NBS units.
- E. Underside of panels, if not exposed to view in the completed installation, may be finished with manufacturer's standard finish.
- F. Mock-up: install in-fill pan at one bay between columns and secure review by Architect. Revise and adjust mock-up until final acceptance by Architect. If accepted, mock-up may be incorporated into the work and will become the standard for acceptance of remaining work.
- G. Protection: Provide factory-applied strippable plastic film protection during fabrication and installation.

2.17 OTHER MATERIALS:

- A. All other materials, not specifically described but required for a complete and proper installation of the work of this Section, shall be new, first quality of their respective kinds, and as selected by the Contractor subject to the approval of the Architect.

PART 3 - EXECUTION

3.01 GENERAL:

- A. Examine the areas and conditions under which work of this Section will be installed. Correct conditions detrimental to the proper and timely completion of the work. Do not proceed until unsatisfactory conditions have been corrected.
 - 1. Coordinate work of this Section with related trades. Sheet metal in conjunction with roofing shall be made an integral part of the roofing assembly. When applicable, roof flashing and other related sheet metal roof items shall be in place prior to application of roofing.
 - 2. Furnish all reglets and other accessories required to be built-in by other trades.

3.02 WORKMANSHIP:

- A. Form all sheet metal accurately and to the dimensions and shapes required, finishing all molded and broken surfaces with true, sharp, and straight lines and angles. Cope intersecting members to an accurate fit, soldering securely. Unless otherwise specifically permitted by the Architect, turn all exposed edges back 1/2". Fabricate all items in maximum lengths, hold all joints to a minimum, and use soldered joints except where expansion joints are required or otherwise indicated. Finish water and weather tight throughout.
- B. Expansion: Form, fabricate, and install all sheet metal so as to adequately provide for expansion and contraction in the finished Work.
- C. Weatherproofing: Finish watertight and weathertight where so required. Make all lock seams work flat and true to line, sweating full of solder. Make all locks seams and laps seams, when soldered, at least 1/2" wide. Where lap seams are not soldered, lap underlayment member according to pitch but in no case less than 4" in full bed of black plastic cement. Make flat and lap seams in direction of flow of water or wind driven moisture.
- D. Flashing and counter-flashing shall be minimum 24-gauge galvanized steel and shall be lapped 3" on the ends and shall have clip locks spaced minimum 24"O.C.

- E. Joints: Join parts with rivets or sheet metal screws where necessary for strength or stiffness. Provide suitable watertight expansion joints for all runs of more than 26 feet, except where closer spacing is indicated on the Drawings or required for proper installation.
- F. Where metals will be in contact with dissimilar materials, galvanic action and other deterioration shall be prevented by painting contacting surfaces with a heavy-bodied bituminous paint or placing a nonabsorbent tape or gasket or a noncorrosive caulking compound between contacting surfaces, as the case may require.
- G. Touch-up all galvanized surfaces which have been damaged by welding, soldering, or other means, with vinyl wash pretreatment followed by one coat of "Galvicon", "Drygalv" or "Tot-Rust."

3.03 EMBEDMENT:

- A. Embed all metal in connection with roofs in a solid bed of mastic, using materials and methods described in these Specifications or other materials and methods approved in advance by the Architect.

3.04 SOLDERING:

- A. Thoroughly clean and tin all joint materials prior to soldering. Perform all soldering slowly with a well heated copper in order to heat the seams thoroughly and to completely fill them with solder. Perform all soldering with a heavy soldering copper of blunt design, properly tinned for use. Make all exposed soldering on finished surfaces neat, full, flowing, and smooth. Solder all corners.
- B. Actively cooperate with other trades in arranging and installing sheet metal work to properly receive and engage work installed by them and do all soldering and caulking of joints so formed as may be necessary or required to insure water and weathertight conditions.
- C. Cleaning: After soldering, thoroughly wash acid flux with a soda solution.

3.05 FLASHING:

- A. Roof edge flashings shall extend over the top edge and lap the wall or fascia and shall not be terminated short of the roof edge.
- B. Flashing determined by the Architect or the District inspector to be defective in either materials or workmanship shall be repaired or replaced at no cost to the District.

3.06 TESTS:

- A. Upon request of the Architect, demonstrate by hose or standing water that all flashing and sheet metal is completely watertight. The flashing Subcontractor and the Architect shall jointly inspect the flashing installation to substantiate the guarantee, and shall be joined by the roofing Sub-contractor for flashing associated with roofing work.

3.07 CLEANING UP:

- A. Upon completion of work, remove excess debris, material, equipment, apparatus, tools and the like. Leave premises clean, neat and orderly.
- B. Brush and clean exposed galvanized metal to remain unpainted.
- C. Protect flashing from construction damage and overspray of adjacent finish materials until notice of completion.

END OF DOCUMENT

WINDOW AND DOOR FLASHING

PART 1 - GENERAL

1.01 DESCRIPTION

- A. This Section describes the requirements for furnishing and installing self-adhering, flexible, modified bituminous membrane flashing around heads, jambs, and sills of doors, windows, louvers, and other exterior wall openings.
- B. Related Sections:
 - 1. Plywood sheathing is specified in Section 06100.
 - 2. Building paper is specified in Section 07262.
 - 3. Sheet metal flashing and trim is specified in Section 07600.
 - 4. Modified bituminous sheet flashing is specified in Section 07651.
 - 5. Joint sealants are specified in Section 07900.
 - 6. Metal wall louvers are specified in Section 10200.

1.02 SUBMITTALS

- A. Product Data: Furnish manufacturer's standard product data sheets and installation recommendations and instructions.
- B. Mock-up: Construct an on-site mock-up showing installation of window and door flashing at a typical louver opening. Mock-up shall incorporate materials to be used and installation techniques to be employed. Do not begin installation of modified bituminous sheet window and door flashing until mock-up is accepted by the Architect. Accepted mock-up shall serve as an installation quality standard for modified bituminous sheet window and door flashing on the Project. Accepted mock-up may be incorporated into the work.

1.03 JOB CONDITIONS

- A. Apply flexible window and door flashings in fair weather at temperatures of 40-deg. F. and above.
- B. Provide adequate ventilation of enclosed spaces where primer is used.

PART 2 - PRODUCTS

2.01 APPROVED MANUFACTURERS

- A. Grace Construction Products "Vycor Plus", Fortifiber Corporation "FortiFlash" 40-mil or approved equal at locations where sealant adhesion is not required.
- B. Polyken "Foilastic" 40-mil or approved equal at locations where sealant adhesion is required.

2.02 MATERIALS

- A. Membrane: Composite of polyethylene film and self-adhesive rubberized asphalt, conforming to the following physical properties:
 - 1. Thickness: 40-mils minimum.
 - 2. Carrier Film: Cross-laminated HDPE.
 - 3. Adhesive: Rubberized asphalt.
 - 4. Release Liner: Paper.
 - 5. Roll Width: As appropriate for openings to be flashed.
- B. Primer: As recommended by membrane manufacturer for priming substrates to receive flexible window and door flashing.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Remove dust, dirt, loose fasteners and other protrusions.
- B. Prime concrete surfaces where recommended by window and door flashing manufacturer with primer at the rate of 250- to 350-sq. ft. per gallon.

3.02 INSTALLATION

- A. Install membrane as recommended by the manufacturer and as indicated.
- B. Cut the membrane to proper length.
- C. Peel back the release liner, align the strip, and press in place with heavy hand pressure. Lap ends 3-inches.
- D. Mechanically fasten strip at vertical terminations.
- E. Install so all laps shed water. Work from the low point to the high point.

- F. Wrap flashings at sill, jambs and head of all openings.
- G. Install membrane as indicated.
- H. Installed membrane shall be covered with subsequently applied covering material.

END OF DOCUMENT

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PITTSBURG UNIFIED SCHOOL DISTRICT
Highlands Elementary School
Window Replacement In-Kind
PLUM architects

WINDOW AND DOOR FLASHING
DOCUMENT 07 6 52-4

JOINT SEALERS

PART 1 – GENERAL

1.01 SUMMARY

- A. Section Includes: Requirements for furnishing and applying joint sealers and associated materials for exterior and interior use.
- B. Related Sections:
 - 1. Building paper is specified in Section 07262.
 - 2. Modified bituminous sheet flashing is specified in Section 07651.
 - 3. Window and door flashing is specified in Section 07652.

1.02 SUBMITTALS

- A. Comply with requirements of Section 01300.
- B. Product Data: Submit manufacturer's descriptive literature for each product specified, including instructions for joint preparation and sealant application.
 - 1. Certification: Manufacturer's certification joint sealers, primers and cleaners comply with Contract documents, local regulations controlling the use of volatile organic compounds (VOC), and are suitable for Project applications.
- C. Samples: Manufacturer's bead samples of actual products showing full range of standard colors for each type of sealant to be used in an exposed location. Furnish sample of paint finish on paintable sealant.
- D. Test Reports:
 - 1. Certified test results of elastomeric sealants showing compliance with specified requirements. Include results of aged performances including hardness, stain-resistance, adhesion and cohesion under cyclic movement, low temperature flexibility, modulus of elasticity at 100-percent strain, effects of heat and aging, and effects of accelerated weathering.
 - 2. Preconstruction field test results indicating which products and joint preparation methods demonstrated acceptable adhesion to joint substrates.
- E. Certificates: Manufacturer's certification that joint sealants comply with specified requirements and are suitable for uses and joint movements indicated and that total VOC's do not exceed 50 grams per liter.

- F. Submit detail drawings of each joint design including dimensions with tolerances, joint accessories, and joint preparation and installation requirements.

1.03 QUALITY ASSURANCE

- A. Test Samples: Test sealants that will come in contact with each other for compatibility, or furnish test data or manufacturers' data verifying compatibility.
- B. Select materials for compatibility with joint surfaces and indicated exposures.
- C. Installer Qualifications: Firm with minimum five years successful experience on projects of similar type and size, using specified products.
- D. Obtain joint sealant materials from a single manufacturer for each product required unless otherwise approved.
- E. Preconstruction Compatibility and Adhesion Testing: Submit sample substrate materials to be sealed to joint sealant manufacturer for testing of adhesion and for compatibility with secondary seals.
 - 1. Determine if priming and/or other preparation techniques are required.
 - 2. Test for adhesion.
- F. Preconstruction Field Testing: Prior to installation of joint sealants, field-test adhesion to joint substrates.
 - 1. Install joint sealants in 5-foot joint lengths. Allow to cure before testing. Test adhesion by pulling sealant out of joint.
 - 2. Perform field tests for each type of elastomeric sealant and joint substrate.
 - 3. Arrange for tests to take place with joint sealant manufacturer's technical representative present.
 - 4. Report whether or not sealant in joint connected to pulled-out portion failed to adhere to joint substrates or tore cohesively. Include data on pull distance used to test each type of product and joint substrate.
 - 5. Sealants not evidencing adhesive failure from testing, in absence of other indications of noncompliance with requirements, will be considered satisfactory. Do not use sealants that fail to adhere to joint substrate during testing.
 - 6. As an alternate, provide 3-inch x 3-inch 24-gauge galvanized sheet metal flashing at jambs of openings and perform test as indicated.
- G. Review Contract Documents and ensure joints are sized as required for anticipated movement and are sized within the ranges of manufacturer's recommendations and warranties. Notify the Architect in writing of any discrepancies.

- H. Sealants shall comply with BAAQMD Regulation 8, Rule 51.
- I. Do not use products containing Methylene Chloride or Chlorinated Hydrocarbons.
- J. Do not use products containing bactericides and fungicides that are classified as phenol mercury acetates, phenol phenates, or phenol formaldehyde.
- K. Do not use products containing aromatic and aliphatic solvents.
- L. Do not use products containing styrene butadiene.

1.04 DELIVERY, STORAGE, AND HANDLING

- A. Comply with requirements of Section 01600.
- B. Deliver materials in the unopened, original containers or unopened packages with manufacturer's name, labels, product identification, color, expiration period, curing time and mixing instructions for multicomponent materials.
- C. Store materials in the original, unopened containers or packages, and under conditions recommended by manufacturers.

1.05 SITE CONDITIONS

- A. Do not proceed with installation of joint sealers under unfavorable weather conditions.
- B. Install sealants when temperature is in range recommended by manufacturer.
- C. Environmental Conditions: Do not install sealants when ambient and substrate temperature conditions are outside limits permitted by joint sealant manufacturer, or to wet joint substrates.
- D. Joint Width Conditions: Do not install sealants when joint widths are less than permitted by sealant manufacturer.
- E. Joint Substrate Conditions: Do not proceed with installation of joint sealants until contaminants capable of interfering with their adhesion are removed from joint substrates.

1.06 WARRANTY

- A. Comply with requirements of 01700.
- B. Repair or replace joint sealers which fail to perform as intended because of leaking, crumbling, hardening, shrinkage, bleeding, sagging, staining and loss of adhesion.
- C. Warranty Period: Five years labor and material, ten years material.

PART 2 – PRODUCTS

2.01 MATERIALS

- A. General: Sealants that will come in contact with other sealants shall be compatible with each other.
- B. Sealants:
 - 1. At Window, Door, and Louver Openings: Type A - urthane high performance sealant: One-part non-sag low-modulus, high-elongation and compression recovery, highly adhesive, ASTM C920, Type S, Grade NS, Class 25, Use NT, G, M and O; UL Classified. "Sonneborn, Sonolastic NP-1" or equal.
 - 2. At Exterior Traffic-Bearing Locations: ASTM C920, Type M, Grade P, Class 25, self-leveling, multi-component polyurethane sealant, Mameco "Vulkem 245", Tremco THC-900 or equal.
 - 3. At Other Exterior Joints: Type A - Silicone high performance sealant: One-part non-sag low-modulus, high-elongation and compression recovery, highly adhesive, ASTM C920, Type S, Grade NS, Class 25, Use NT, G, M and O; UL Classified. "Sonneborn NP-1" or equal.
 - 4. Building Interior, Except as Otherwise Specified: ASTM C 834, single-component, gun-grade, paintable, acrylic-latex water-base type; Sonneborn "Sonolac," Bostik "Chem-Calk 600," Tremco "Acrylic Latex," or equal.
 - 5. Fire Rated: At steel door, frames, and joints in fire rated walls, 3M Fire Barrier 2000+ Silicone Sealant by 3M.
 - 6. Sanitary Sealant: Single-component, primerless, flexible, mildew-resistant, silicone rubber sealant; Dow Corning "Silicone Rubber Bathtub Caulk," Tremco "Proglaze," or equal.
- C. Sealant Colors: For sealants which will be used in exposed locations, color will be selected by Architect from manufacturer's standard range; sealants for use in concealed locations may be any of manufacturer's standard colors.
- D. Sealant Backup: Non-staining, closed-cell foam compatible with sealant to be used; of size and shape to control depth of sealant and to allow manufacturer recommended compression upon insertion.
- E. Miscellaneous Materials:
 - 1. Joint Cleaner for Metal and Glass: Type recommended by manufacturer of sealant to be used.
 - 2. Primer: Type recommended by manufacturer of sealant to be used.
 - 3. Masking Tape: Pressure-sensitive, adhesive paper tape.
 - 4. Bond Breaker: Pressure-sensitive, adhesive polyethylene tape.

5. Sealant Backer Rod: Compressible closed cell polyethylene foam rod or other flexible, permanent, durable nonabsorptive material as recommended by joint sealer manufacturer for compatibility with joint sealer. Oversize backer rod minimum 30% to 50% of joint opening.

PART 3 – EXECUTION

3.01 EXAMINATION

- A. Verify that surfaces to receive joint sealants are clean, dry, and free of grease, oil, and other materials that could prevent proper adhesion of sealants.
- B. Verify that other conditions are satisfactory for the application of joint sealants. If unsatisfactory conditions exist, do not begin installation until such conditions have been corrected.

3.02 PREPARATION

- A. Clean joints, using recommended cleaner.
- B. Mask surfaces adjacent to exposed joints.
- C. Apply primer, if recommended by sealant manufacturer.
- D. If new or existing joints as indicated are not suitable, clean out to depth indicated or required by sealant manufacturer; grind to minimum ½-inch width without damaging adjacent surfaces. Do not grind metal.

3.03 APPLICATION

- A. Apply joint sealants in accordance with the manufacturer's printed instructions.
- B. Provide sealants at areas of new work wherever necessary to prevent light leakage and moisture leakage; at exposed joints around plumbing fixtures, door and window frames, louver frames and other locations required to aid cleaning and sanitation, whether or not specifically indicated or specified.
- C. Install sealant backup using blunt instrument; avoid twisting. Install so that joint depth is 50 percent of joint width, but not less than ¼-inch deep.
- D. Apply gun-grade sealants using pressure gun with nozzle sized to fit joint width; apply in continuous, uniform beads, without gaps and air pockets.
- E. Tool joints within ten minutes of sealant application. Around countertops and backsplashes, tool joints flat, not concave. Remove masking materials immediately after tooling.

- F. Seal joints adjacent to surfaces to be painted prior to application of final coat of paint.

3.04 CLEANING

- A. Remove excess and spilled sealants adjacent to joints without damaging adjacent surfaces.

END OF DOCUMENT

FRP DOORS AND ALUMINUM FRAMES

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. Provide fiberglass reinforced panel (FRP) faced flush doors and panels.

1.02 RELATED WORK

- A. Section 08410: Aluminum Storefront Systems.
- B. Section 08710: Finish Hardware.

1.03 QUALITY ASSURANCE

- A. Field Measurements: Take field measurements to verify rough opening dimensions prior to installation.
- B. Installer: Firm trained by manufacturer for proper installation of FRP doors and panels; manufacturer's representative to provide instruction for proper installation and adjustment.

1.04 SUBMITTALS

- A. Submit the following in accordance with Section 01300.
- B. Shop Drawings: Indicate general construction of doors, panels, aluminum frames, and location of cutouts. Indicate finish materials. At new door openings indicate construction and size of frames.
- C. Product Data: Furnish manufacturer's literature, marked to indicate materials and options intended.
- D. Samples: Submit FRP samples and corner section of door and of panel showing treatment of FRP at edge; submit special aluminum piece at doors. Submit section of new door frame.

1.05 SITE CONDITIONS

- A. Do not deliver or install doors and panels until conditions for temperature and relative humidity have been stabilized in accordance with referenced standards requirements applicable to Project location.

1.06 WARRANTY

- A. Provide for replacing and rehangng doors and panels exhibiting defects in materials or workmanship including warpy and delamination.
- B. Warranty Period: Ten years.

1.07 FIELD MEASUREMENTS

- A. Field Measurements: Coordinate actual dimensions of construction affecting FRP doors and frames installation by accurate field measurements before fabrication. Show recorded measurements on final shop drawings. Coordinate field measurements and fabrication schedule with construction progress to avoid delay of Work.
- B. Where field measurements cannot be made without delaying the Work, establish dimensions and proceed with fabricating systems without field measurements. Coordinate construction to ensure actual dimensions correspond to established dimensions.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

- A. Special-Lite, Inc. (Decatur, MI), Commercial Door Systems, or approved equal.

2.02 MATERIALS

- A. FRP Faced Doors: Special-Lite/SL-20 FRP Face Sheet Flush Doors; aluminum stile and rail construction with poured-in-place polyurethane core construction; 1¾" total thickness including FRP facing.
 - 1. Stiles and Rails: Minimum 6063-T6 aluminum alloy; Class I anodized finish, minimum 0.125" tubular shapes, 2-5/16" deep; manufacturer's standard construction and joinery to provide square doors.
 - 2. Core: Minimum 5 pcf density CFC and HCFC free polyurethane with minimum R-11 for standard door thickness.
 - 3. FRP Facing: Minimum 0.12" thick fiberglass reinforced polyester; vertical edged and back face matching door face, even where in unfinished areas.
 - a. Texture: **Smooth**
 - b. Color: As selected by Architect from full range of available colors, Special-Lite Standard colors and Special-Lite Classic colors.

- c. Interior Door Flame Spread/Smoke Developed: UBC Class I (UL Class A) rated with maximum 25 flame spread and 450 smoke developed, ASTM E84, unless otherwise indicated.
- B. Louvers: Aluminum, inverted Y-type, fixed blade, factory installed, size as indicated on the drawings. Color to be anodized to match the door rails. Use security screws at all stops.

2.03 FABRICATION

- A. Fabrication: Manufacturer's standard fabrication matching approved samples.
 - 1. Prefit all FRP doors.
 - 2. Shop prepare doors and frame inserts to receive hardware, refer to Section 08700 for hardware requirements and templates.
 - 3. Comply with standards, recommendations, and definitions of American Architectural Manufacturers Association (AAMA) and National Association of Architectural Metal Manufacturers (NAAMM).
 - a. Comply with NAAMM "Entrance Manual."
- B. Make cut-outs in doors.
- C. Bevel strike edge of single-acting doors, 1/8" in 2".

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Install FRP doors and panels in accordance with manufacturer's recommendations and installation instructions, plumb and square, and with maximum diagonal distortion of 1/16".
 - 1. Coordinate hardware installation with requirements of Section 08700 - Hardware.
- B. Rehang or replace doors which do not swing or operate freely.
- C. Protection: Protect doors as recommended by door manufacturer to ensure doors are without damage at time of substantial completion; replace damaged doors.
 - 1. Patching of plastic and use of touch-up color is not acceptable; remove and replace entire doors.

3.02 FINAL CLEANING

- A. Clean all surfaces.
- B. Repair and or replace damaged doors for a new factory appearance.
- C. Water test, per ASTM E1105.00, all exterior doors upon completion of the door installation.

END OF DOCUMENT

ALUMINUM STOREFRONT SYSTEMS

PART 1 - GENERAL

1.01 DESCRIPTION

A. Work Included: Provide all aluminum storefront systems, windows, transoms, hardware and accessories complete and, in place, as shown on the Drawings and as specified herein, and all materials needed for a complete and proper installation. Provide shop drawings and calculations stamped by a California Licensed Structural Engineer demonstrating the system meets the minimum performance requirements specified herein. Work to be provided includes, but is not necessarily limited to:

1. Exterior aluminum-framed storefronts and entrance subframes to match existing system.
2. Exterior aluminum-framed transom windows to match existing system.

1.02 Related work in other Sections including but not limited to:

- A. Section 05500: Metal Fabrications
- B. Section 06100: Rough Carpentry
- C. Section 07600: Flashing and Sheet Metal
- D. Section 07651: Window and Door Flashing
- E. Section 07900: Joint Sealers
- F. Section 08520 Aluminum Windows
- G. Section 08710: Finish Hardware
- H. Section 08800: Glazing

1.03 REFERENCE SPECIFICATIONS:

- A. American Society for Testing and Materials (ASTM) Publications
- B. Architectural Aluminum Manufacturers Association (AAMA); GS-001, Guide specifications for Aluminum Architectural Windows
- C. Federal Specifications-SSPC
- D. Comply with current CBC Chapter 24 Table 2403.2.1

1.04 COOPERATION WITH OTHER TRADES: Carefully coordinate work of this section with that of all other trades to insure that the work will be carried out in an orderly and complete fashion.

1.05 QUALITY ASSURANCE:

- A. Standards: Requirements for aluminum storefront systems, terminology and standards of performance, and fabrication workmanship are those specified and recommended in ANSI/AAMA 101-93 and applicable general recommendations of AAMA. Fixed transom window standards shall be AAWA-AW AW100 grade.
- B. Qualifications of Manufacturer: Products used in the work of this Section shall be produced by manufacturers regularly engaged in the manufacture of similar items and with a history of satisfactory production acceptable to the Architect. Storefront shall be from a manufacturer who has been engaged in the manufacture of aluminum storefront for not less than 10 years.
- C. Qualifications of Installer and Workmen: Acceptable to manufacturer and capable of preparation of data for aluminum storefront systems including Shop Drawings based on testing and engineering analysis of manufacturer's standard units in assemblies similar to those indicated for this Project. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
- D. Testing: Provide test reports from an independent, AAMA accredited, certified and approved laboratory (agency) qualified according to ASTM E 699 for tests indicated and certifying the performance as specified in paragraph 1.07 before actual testing occurs. The District will provide AAMA-certified testing laboratories if requested. Architectural Testing Inc., of Fresno, CA is an acceptable testing laboratory.
- E. Preconstruction Sealant Testing: For structural-sealant glazed systems, perform sealant manufacturer's standard tests for compatibility and adhesion of sealants with each condition required by aluminum storefront systems.
 - 1. Determine corrective measures required to prepare each material to ensure compatibility with and adhesion of sealants, including, but not limited to, specially formulated primers.
- F. Structural-Sealant Glazing: Comply with recommendations in ASTM C 1401, "Guide for Structural Sealant Glazing".

1.06 TESTING AND PERFORMANCE REQUIREMENTS

- A. General: Provide aluminum storefront systems, including anchorage, capable of withstanding, without failure, the effects of the following:
 - 1. Structural loads.
 - i. Wind Loads: Per current edition of the California Building Code.
 - ii. Seismic Loads: Per current edition of the California Building Code.

2. Thermal movements.
3. Movements of supporting structure indicated on Drawings including, but not limited to, story drift and deflection from uniformly distributed and concentrated live loads.
4. Dimensional tolerances of building frame and other adjacent construction.
5. Failure includes the following:
 - i. Structural failures including, but not limited to, excessive deflection exceeding specified limits.
 - ii. Thermal stresses transferred to building structure.
 - iii. Framing members transferring stress, including those caused by thermal and structural movements, to glazing.
 - iv. Glazing-to-glazing contact.
 - v. Noise or vibration created by wind, thermal and structural movements,
 - vi. Loosening or weakening of fasteners, attachments, and other components.
 - vii. Adhesive or cohesive sealant failures.
 - viii. Failure of operating units to function properly.
 - ix. Deterioration of metals, metal finishes and other materials beyond normal weathering.
 - x. Water leakage through fixed glazing and framing areas.

B. Provisions for Thermal Movements:

1. Submit the Shop Drawings to show storefront framing system and anchoring provides for thermal movement of all component materials resulting from ambient temperature range of 120 degree F, material surface temperature range of 180 degree F or from normal movements and deflections of the building structure without causing buckling, stresses on glass, failure of joint seals, undue stress on structural elements, damaging loads on fasteners, reduction of performance, or other detrimental effects. Operating windows and doors shall function normally over this temperature range.

C. Structural-Sealant Joints: Designed to produce tensile or shear stress in structural-sealant joints of less than 20 psi (138kPa).

D. Test Procedures and Performance:

1. Windows shall conform to specified AAAMA/NWWDA 101/I.S.2 – ANSI standards or the following, whichever are more stringent:
2. Air Infiltration Test
 - i. Test unit in accordance with ASTM E 283 at a minimum static air pressure of 6.24 psf.
 - ii. Air infiltration shall not exceed .06 cfm per square foot of fixed wall area.

3. Water Resistance Test

- i. Test unit in accordance with ASTM E 331.
- ii. There shall be no uncontrolled water leakage at a minimum static test pressure of 20-percent of positive wind-load design pressure, but not less than 6.24 psf.

4. Uniform Load Deflection Test:

- i. Test in accordance with ASTM E 330.
- ii. The system shall withstand the design wind pressure normal to the plane of the wall as indicated on structural drawings.
- iii. Deflection under design load shall not exceed L/175 of the clear span for spans up to 13-feet 6-inches and L/240 plus ¼-inch for spans greater than 13-feet 6-inches or an amount that restricts edge deflection of individual glazing lites to ¾-inch, whichever is less.

5. Uniform Load Structural Test:

- i. When tested at positive and negative wind-load pressures, systems do not evidence deflection exceeding specified limits.
- ii. Test in accordance with ASTM E 330 at positive and negative wind-load design pressures 1.5 times the design wind pressure in 1.06 1.B.(3)
- iii. At the conclusion of the test, there shall be no evidence of material failures, structural distress, permanent deformation of main framing members exceeding 0.2-percent of span, glass breakage, permanent damage to fasteners, storefront parts, or any other damage that would cause the storefront to be defective.
- iv. Test durations shall be as required by design wind velocity but not less than 10-seconds.

6. Condensation Resistance Test (CRF)

- i. Test in accordance with ASTM 1502.7.
- ii. Condensation Resistance Factor shall not be less than 55.

7. Thermal Transmittance Test (Conductive U Value)

- i. Test in accordance with ASTM 1503.1.
- ii. Conductive thermal transmittance (U value) shall be not more than .65 BTU/HR/degrees F/SF.

8. Field Testing: A mock-up of a typical storefront and window unit system, including any panning, compensating channel, installation of the specified sealant, etc. will be required before any placement of storefront and windows shall be performed. After visual inspection by the District, the District's Representative and/or any other interested parties, and successful field water testing per AAAMA/NWWDA 101/I.S.2-97, the mock-up, after written acceptance, will be used as the standard of quality for the remainder of the work. After 50% of the work is completed perform ASTM E-1105 – "Field Water Test for Windows Under Uniform Static Air Pressure Difference:" on an installed window. After 90% of the work is completed perform ASTM E-105 – "Field Water Test for Windows" on one installed window. Selection of test windows will be randomly selected by the District and/or the District's Representative.

1.07 SUBMITTALS:

- A. General: Comply with the provisions of Section 01040.
- B. Manufacturer's Data: Within 30 calendar days after award of contract, submit:
 1. Complete materials list of all items proposed to be furnished and installed under this Section.
 2. Manufacturer's Specifications and other data required to demonstrate compliance with the specified requirements.
 3. Test reports from an independent testing laboratory and manufacturer's letter of certification document compliance with paragraph 1.06.
 4. Data shall describe each type of storefront, window, hardware, fastener, accessory, and finish.
 5. Manufacturer's recommended methods of installation for each type of storefront, entrance door and window. The manufacturer's recommended methods of installation, when approved by the Architect, will become the basis for inspecting and accepting or rejecting actual installation methods used on the work.
 6. Maintenance manuals.
- C. Shop Drawings: Submit shop drawings stamped and signed by a California Licensed Structural Engineer. Shop drawings shall show scale plans, elevations, sections of storefront system, full size details, thicknesses and gauges of metal, fastenings, proposed method of anchoring, the size and spacing of anchors, details of construction, method of glazing, details of operation hardware, mullion details, metal sub-frames, stool casing, sills, trim, finishes, other related items, and installation details. Relationship to work of other trades including adjacent finish material should be clearly indicated. Structural support to achieve the maximum deflections as specified shall be included in the Shop Drawings. Fabrication of components shall not begin until shop drawings have been approved.
- D. Calculations: Submit structural calculations stamped and wet signed by a California Licensed Structural Engineer. The calculations shall be specific and

demonstrate how the storefront system meets the design requirements specified herein.

- E. The following information must be included in the submittal:
 - 1. Provide calculations for the worst load combination: DL+Seismic or DL+Wind.
 - 2. Design of Jamb and Header
 - 3. Specify material (Aluminum and/or other metals) properties, mullion and cross member profile and thickness, and sectional properties (A , t_{min} , I_x , I_y , S_x , S_y) on drawings.
 - 4. Provide connection details; specify screw type and properties (corrosion resistant, thread per inch, length)
 - 5. Stress and deflection calculations ($<L/175$ for wind)
 - 6. Compatibility check for building inter-story drift with storefront.
- F. Samples: Submit small working samples of fixed windows with specified glass showing color range of the specified finish and submit samples of a major aluminum extrusion 12" long and an aluminum sheet 12" x 12" square showing color range of the specified finish.
- G. Certifications: Submit letter from the storefront system manufacturer or anodizer certifying and guaranteeing the specified anodizing and finish.
- H. Preconstruction Sealant Testing Reports: For structural-sealant-glazed systems.
- I. Field quality-control test and inspections report.

1.08 PRODUCT HANDLING

- A. Prior to shipment from the factory, finished surfaces of storefront shall receive a protective coating of adhesive paper, waterproof tape or strippable plastic. Deliver storefront to project site in an undamaged condition. Use care in handling and storefront windows during transportation and at the job site. Store storefront and components at the site on edge, out of contact with the ground, and under a weather tight covering. Arrange to avoid bending, warping, discoloring or otherwise damaging the storefront.
- B. Replacements: In the event of damage, immediately make all repairs and replacements necessary to the approval of the Architect and at no additional cost to the Owner.

1.09 FIELD MEASUREMENTS

- A. Field Measurements: Coordinate actual dimensions of construction affecting the storefront installation by accurate field measurements before fabrication. Show recorded measurements on final shop drawings. Coordinate field measurements and fabrication schedule with construction progress to avoid delay of Work.

- B. Where field measurements cannot be made without delaying the Work, establish dimensions and proceed with fabricating systems without field measurements. Coordinate construction to ensure actual dimensions correspond to established dimensions.

1.10 WARRANTY:

- A. The contractor shall assume full responsibility and warrant for one year the satisfactory performance of the total storefront and entrance installation. This includes the glass, glazing, anchorage and setting system, sealing, flashing, etc., as it relates to air, water and structural adequacy as called for in the specifications and approved shop drawings.
- B. Manufacturer's Special Assembly Warranty: Manufacturer's standard form in which the manufacturer agrees to repair or replace components of aluminum storefront systems that do not comply with requirements or that deteriorate as defined in paragraph 1.06 A.5 within specified a warranty period of two (2) years from the Date of Substantial Completion of the project.
- C. Manufacturer's Special Finish Warranty: Manufacturer's standard form in which the manufacturer agrees to repair or replace components on which finishes fail within a specified warranty period of two (20) years from the Date of Substantial Completion of the project. Warranty does not include normal weathering.
- D. Any deficiencies due to such elements not meeting the specifications shall be corrected by the responsible contractor at his expense during the warranty period.

PART 2 - PRODUCTS

2.01 GENERAL:

- A. Manufacturer: All components of the Storefront system shall be from one acceptable manufacturer. The drawings indicate the size, profiles, and dimensional requirements of the aluminum system required and are based upon the specific type and model of one manufacturer. Aluminum storefront systems by other manufacturers may be considered provided deviations in dimensions and profiles are minor and do not change the design concept as judged by the Architect. Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include the following:
 1. Kawneer Company Inc., 555 Guthridge Court, Technology Park / Atlanta, Norcross GA 30092, (770) 449-5555. Contact: Dan Richardson (916) 332-6800
 2. Or approved equal. Substitution provisions are specified under Section 01630.

- B. Storefront: Storefront system to match existing storefront system. Storefront system basis of design is Kawneer Trifab Versaglaze 451 series with 2-inch x 4.5-inch aluminum tube frames and fixed lites and transoms, or approved equal. Vertical mullions shall have integral steel reinforcing as required by the manufacturer to meet the specified performance requirements.

2.02 MATERIALS:

- A. Aluminum: Extruded aluminum shall be 6063-T5 alloy and temper as required (ASTM B221 alloy G.S. 10A-T5). Extruded aluminum pipe and tubes shall comply with ASTM B 429.
- B. Sheet and Plate Aluminum: 5055 aluminum alloy meeting the requirements of ASTM B 209-01.
- C. Structural Aluminum Profiles: structural aluminum profiles shall comply with ASTM B 3080/B 308M.
- D. Carbon Steel for reinforcement of Aluminum Framing Members: ASTM A 36-01 for structural shapes, plates, and bars; ASTM 1008-01A for cold rolled sheet and strip; or ASTM A 1011-01a for hot rolled sheet and strip.
- E. Fasteners, nuts, bolts, clips, screws and other miscellaneous hardware items shall be non-magnetic stainless steel (18-8).
 - 1. Where fasteners are subject to loosening or turning out from thermal and structural movements, wind loads, or vibration, use self-locking devices.
 - 2. Reinforce members as required to receive fastener threads.
 - 3. Use concealed fasteners where possible. Exposed fasteners shall be countersunk Phillips screw heads, finished to match framing system.
 - 4. Concrete and masonry inserts shall comply with ASTM A 123/A 123M or ASTM A 153/A 153M.
- F. Flashing:
 - 1. General: Manufacturer's standard corrosion-resistant, non-staining, non-bleeding flashing compatible with adjacent materials.
 - 2. Concealed Flashing: 26 gauge minimum dead-soft stainless steel, or 0.040 inch minimum aluminum sheet of alloy and type selected by manufacturer for compatibility with other components.
 - 3. Exposed Flashing: Form from 0.090-inch minimum sheet aluminum finished to match framing and of sufficient thickness to maintain a flat appearance without visible deflection.

G. Weatherstripping:

1. Compression Weatherstripping: Manufacturer's standard integral, replaceable, compressible weatherstripping gaskets of molded neoprene complying with ASTM D 2000-01.
2. Sliding Weatherstripping: Manufacturer's standard integral, replaceable wool, polypropylene, or nylon woven pile complying with AAMA 701.2.
3. Double Weatherstripping: Manufacturer's standard integral, replaceable, weatherstripping gaskets of molded neoprene complying with ASTM D 2000-01. Provide and install at all operating sash with molded neoprene gaskets or molded expanded neoprene gaskets.

H. Bituminous Coatings: Cold-applied asphalt-mastic paint complying with SSPC PS 12 requirements except containing no asbestos, formulated for 30-mil thickness per coat.

I. Glass and Glazing: Refer to Section 08800 for Glazing Specifications and as indicated herein.

1. Setting blocks and spacers shall be manufacturer's standard neoprene.
2. Glazing tape shall be used on the outside face of the sash opening. The butyl tape shall be kept at 3/16-inch to 1/8-inch below the site line. A bed of clear silicone shall be applied to this outer face to insure a water tight installation.
3. Glazing shall be retained mechanically with gaskets on four sides.
4. All glazing within 24-inches of a door or 18-inches from a floor surface shall be tempered glass.
5. Glazing gaskets shall be manufacturer's standard compression types, replaceable, molded or extruded, that maintain uniform pressure and watertight seal.
6. Bond-Breaker Tape: Manufacturer's standard TFE-fluorocarbon or polyethylene material to which sealants will not develop adhesion.
7. Glazing Sealants: For structural-sealant-glazed systems, as recommended by manufacturer for joint type and as follows:
 - a. Structural Sealant: ASTM C 1184, neutral-curing silicone formulation compatible with system components with which it comes in contact. Color as selected by Architect from manufacturer's full range of colors.
 - b. Weatherseal Sealant: ASTM C 920 for Type S, Grade NS, Class 25, Uses NT, G, A, and O; neutral-curing silicone formulation compatible with system components with which it comes in contact. Color as selected by Architect from manufacturer's full range of colors.

J. Dissimilar Metals: All dissimilar metals must be properly insulated to prevent galvanic action.

K. Brackets and Reinforcements: Manufacturer's standard high-strength aluminum with non-staining, nonferrous shims for aligning system components.

- L. Framing System Gaskets and Sealants: Manufacturer's standard recommended by manufacturer for joint type.
- M. Miscellaneous Brake Shapes: provide and install headers, closures, drips, sills, anchors and supports as indicated and required. Fabricate from 0.0900-inch and 0.125-inch aluminum unless otherwise indicated.
- N. Accessory Materials:
 - 1. Insulating materials as specified in Division 7 Section "Building Insulation".
 - 2. Joint Sealants: For installation at perimeter of aluminum storefront systems, as specified in 07900 Sealants.

2.03 FABRICATION

A. Framing Members

- 1. Mullion and perimeter framing shall be manufacturer's standard extruded-aluminum framing members with no projecting stops of a thickness required and reinforced as required to support imposed loads. All exterior covers shall be seamless. All vertical and horizontal framing members shall have a nominal dimension of 2-inch wide by 5-inch deep to match existing storefront system. Framing members to have a nominal 1/8-inch wall thickness including sill covers.
 - a. Vertical framing members are Kawneer #061-028 or equal, 2-inch wide x 5-inch deep. Anchor vertical framing members to existing concrete slabs with 0.125-inch thick aluminum shear clips. Attached clips to slab with two 3/8-inch diameter Hilti Kwik Bolt TZ per clip.
 - b. Horizontal framing members between door and fixed transom windows are Kawneer #A-7053 or equal, 3-inch wide x 5-inch deep. Connectors are Kawneer #450-506 or equal, top and bottom at each end.
- 2. Form aluminum shapes before finishing.
- 3. Weld in concealed locations to greatest extent possible to minimize distortion or discoloration of finish. Remove weld spatter and welding oxides from exposed surfaces by descaling or grinding.
- 4. Fabricate components that, when assembled, have the following characteristics:
 - a. Profiles that are sharp, straight and free of defects or deformations.
 - b. Accurately fitted joints with ends coped or mitered.
 - c. Means to drain water passing joints, condensation occurring within framing members, and moisture migrating within the system to exterior.
 - d. Physical and thermal isolation of glazing from framing members.
 - e. Accommodations for thermal and mechanical movements of glazing and framing to maintain required glazing edge clearances.
 - f. Provisions for field replacement of glazing from the interior. All glazing stops shall be on the interior side of the glazing system.

PART 3 - EXECUTION:

3.01 INSPECTION

- A. Job Conditions: All openings shall be prepared by others to the proper size and shall be plumb, level and in the proper locations and alignment as shown on the drawings.
- B. Before starting fabrication, actual field conditions affecting the work shall be thoroughly investigated. Actual field measurements shall be taken of all openings into which this work is to be fitted. Examine the areas and conditions under which work of this section will be installed. Verify that openings are dimensionally within allowable tolerances, plumb, level, clean and provide a solid anchoring surface. If the field investigations indicated that the work of other trades does not conform to the design dimensions and conditions, corrections shall be made prior to installation of storefront systems for a timely and proper completion of the work. Do not proceed until unsatisfactory conditions have been corrected.
- C. Dimension Verification: Field measure all openings prior to ordering or fabrication of all products. Notify the Architect of possible discrepancies.

3.02 INSTALLATION:

- A. General:
 - 1. Fit joints to produce hairline joints free of burrs and distortion.
 - 2. Rigidly secure non-movement joints.
 - 3. Install anchors with separators and isolators to prevent metal corrosion and electrolytic deterioration.
 - 4. Seal joints watertight, unless otherwise indicated.
- B. The storefront framing shall be securely installed according to the manufacturer's recommendations and the approved shop drawings.
- C. Isolate dissimilar metals as necessary to prevent electrolysis. Where aluminum surfaces are in contact with dissimilar metals, protect against galvanic action by painting contact surfaces with one coat of alkali resistant bitumastic paint or zinc chromate paint or by applying sealant or tape or installing non-conductive spacers as recommended by manufacturer for this purpose. Where aluminum surfaces are in contact with concrete or masonry, the aluminum contact surface shall be protected with one coat of alkali resistant bitumastic paint or zinc chromate paint.
- D. Install components to drain water passing joints, condensation occurring within framing members, and moisture migrating within the system to exterior.
- E. Set continuous sill members and flashing in full sealant bed as specified in Division 7 Section "Sealants" and to produce weathertight installation.

- F. Install components plumb and true in alignment with established lines and grades without warp or rack.
- G. Install glazing as specified in Division 8 Section "Glazing".
 - 1. Structural-Sealant Glazing:
 - i. Prepare surfaces that will contact structural sealant according to sealant manufacturer's written instructions to ensure compatibility and adhesion. Preparation includes, but is not limited to, cleaning and priming of surfaces.
 - ii. Install weatherseal sealant according to Division 7 Section "Sealants" and according to sealant manufacturer's written instructions to produce weatherproof joints. Install joints filler behind sealant as recommended by sealant manufacturer.
- H. Install insulation as specified in Division 7 Section "Building Insulation"
- I. Install perimeter joint sealants as specified in Section 07900 "Sealants" and to produce weathertight installation.
- J. Erection Tolerances: Install aluminum storefront systems to comply with the following maximum tolerances:
 - 1. Location and Plane: Limit variation from true location and plane to 1/8-inch in 12-feet; 1/4-inch over total length.
 - 2. Alignment:
 - i. Where surfaces abut in line, limit offset from true alignment to 1/16-inch.
 - ii. Where surfaces meet at corners, limit offset from true alignment to 1/32-inch.
 - 3. Diagonal Measurements: Limit difference between diagonal measurement to 1/8-inch.
- K. All operating hardware shall be checked for proper function and adjustment.

3.03 PROTECTION AND CLEANING: The general contractor shall protect the aluminum storefront material and finish against damage from construction activities and harmful substances. The general contractor shall clean the aluminum surfaces as recommended for the type of finish applied and shall be responsible for final cleaning. Provide adhered, non-marring strippable plastic protection over all framing members at time of installation, prior to glazing.

3.04 CLEANING UP: Upon completion of work, remove excess debris, material, equipment, apparatus tools and the like and leave premises clean, neat and orderly.

3.05 FIELD QUALITY CONTROL

- A. Testing Agency: Owner will engage a qualified independent testing and inspecting agency to perform field tests and inspections and prepare test reports.

- B. Testing Service: Testing and inspecting of representative areas to determine compliance of installed systems with specified requirements shall take place as follows. Do not proceed with installation of the next area until test results for previously completed areas show compliance with requirements.
1. Structural-Sealant Compatibility and Adhesion: Structural sealant shall be tested according to recommendations in ASTM C1401 using destructive test method, Method A, Hand Pull Tab (Destructive), Appendix X2. A minimum of six areas on each building face shall be tested. Repair installation areas damaged by testing.
 2. Structural-Sealant Glazing Inspection: After installation of aluminum storefront systems is complete, structural-sealant glazing shall be inspected and evaluated according to ASTM C1401 recommendations.
 3. Air Infiltration: Areas shall be tested for air leakage of 1.5 times the rate specified for laboratory testing, but not more than 0.09-cfm/sq. ft. of fixed wall area when tested according to ASTM D783 at a minimum static-air pressure difference of 6.24-psf pressure.
 4. Water Penetration: Areas shall be tested according to ASTM E1105 at a minimum uniform and cyclic static-air pressure difference of 0.67 times the static-air pressure difference specified for laboratory testing, but not less than 8-psf, and shall not evidence water penetration.
 5. Water Spray Test: Before installation of interior finishes has begun, a minimum area of 75-feet by one story of aluminum storefront systems designated by the Architect shall be tested according to AAMA 501.2 and shall not evidence water penetration.
 6. Repair or remove work where test results and inspections indicate that it does not comply with specified requirements.
 7. Additional testing and inspecting, at the Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.

END OF DOCUMENT

INSULATED ALUMINUM PANELS

PART 1 - GENERAL

1.1 SUMMARY:

- A. Section includes: Insulated aluminum infill panels for installation in aluminum storefront.
- B. Related Documents: The Conditions of the Contract and Division 1 apply to this section as fully as if repeated herein.
 - 1. Related Sections:
 - 2. Aluminum storefront is specified in Section 08411.
 - 3. Glazing sealant is specified in Section 08800.

1.2 SUBMITTALS:

- A. Product Data: Submit product data including construction details and fabrication methods, data on accessories and finishes, and recommendations for maintenance and cleaning of exterior surfaces.
- B. Shop Drawings: Include information not fully detailed in manufacturer's standard product data and the following:
 - 1. Layout and installation details, including anchors.
 - 2. Full-size section details of typical composite members.
 - 3. Installation details.
- C. Samples: Furnish samples of each required aluminum finish, on 12-inch square sheets. Show extremes of range of appearance variations.

1.3 QUALITY ASSURANCE:

- A. Design Criteria: Drawings indicate sizes, profiles and dimensional requirements of aluminium infill panels. Panel units having minor deviations from indicated dimensions and profiles may be accepted, subject to Architect's approval.

1.4 PRODUCT DELIVERY, STORAGE, AND HANDLING:

- A. Deliver infill panels and accessories in manufacturer's original packaging, clearly identified with manufacturer's name, name and type of product, and finish.
- B. Store panels off the ground in an upright position, protected from the weather and other sources of damage.
- C. Handle to prevent twisting and other damage.
- D. Comply with additional requirements of the manufacturer.

1.5 PROJECT CONDITIONS:

- A. Field Measurements: Check openings by accurate field measurement before fabrication; show recorded measurements on final shop drawings. Coordinate fabrication schedule with construction progress to avoid delay of work.

PART 2 - PRODUCTS

2.1 MANUFACTURER:

- A. Acceptable manufacturer or equal:

Mapes Industries

2.2 MATERIALS:

- A. Aluminum Extrusions: Alloy and temper recommended by manufacturer for strength, corrosion resistance, and application of required finish, but not less than 0.062 inch thick.
- B. Fasteners: Aluminum, non-magnetic stainless steel, or other materials warranted by manufacturer to be non-corrosive and compatible with window and infill panel members and other components.

2.3 FABRICATION:

- A. Fabricate infill panels: 2-lb density polystyrene foam core laminated to tempered hardboard substrate with 26 guage aluminum skins. Overall panel thickness shall be 1 inch.
- B. Finish: Celar Anodized finish to match storefront frames

PART 3 – EXECUTION

3.1 INSPECTION:

- A. Inspect openings before beginning installation.

3.2 INSTALLATION:

- A. Comply with manufacturer's specifications and recommendations for installation of panels.
- B. Install panels in accordance with Section 08800
- C. Separate aluminum and other corrodible surfaces from sources of corrosion or electrolytic action at points of contact with other materials.
- D. Set members in bed of compound or with joint fillers or gaskets to provide weathertight construction. Refer to Section 08800. Coordinate installation with other components.

CLEANING:

- A. Clean aluminum surfaces promptly after installation. Exercise care to avoid damage to protective coatings and finishes. Remove excess glazing and sealant compounds, dirt and other substances.

PROTECTION:

- A. Initiate and maintain protection and other precautions required through the remainder of the construction period to ensure that infill panels will be free of damage or deterioration at time of Final Acceptance, except for normal weathering.

END OF DOCUMENT

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PITTSBURG UNIFIED SCHOOL DISTRICT
Highlands Elementary School
Window Replacement In-Kind
PLUM architects

INSULATED ALUMINUM PANELS
DOCUMENT 08 5 25-4

DOOR HARDWARE

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions of Division 1 Specification Sections, apply to this Section.

1.02 SUMMARY

- A. This Section includes items known commercially as finish or door hardware that are required for swing, sliding, and folding doors, except special types of unique hardware specified in the same sections as the doors and door frames on which they are installed.
- B. This Section includes the following, but is not necessarily limited to:
 - 1. Door Hardware, including electric hardware.
 - 2. Low-energy door operators plus sensors and actuators.
 - 3. Thresholds, gasketing and weather-stripping.
 - 4. Door silencers or mutes.
- C. Related Sections: The following sections are noted as containing requirements that relate to this Section, but may not be limited to this listing.
 - 1. Division 8: Section - Aluminum Storefront Systems.
 - 2. Division 8: Section - FRP Doors.

1.03 REFERENCES (Use date of standard in effect as of Bid date.)

- A. 2013 California Building Code, CCR, Title 24.
- B. BHMA - Builders' Hardware Manufacturers Association.
- C. DHI - Door and Hardware Institute.
- D. NFPA - National Fire Protection Association.
 - 1. NFPA 80 - Fire Doors and Other Opening Protectives
 - 2. NFPA 105 - Smoke and Draft Control Door Assemblies
- E. UL - Underwriters Laboratories.
 - 1. UL 10C - Fire Tests of Door Assemblies

2. UL 305 - Panic Hardware

F. WHI - Warnock Hersey Incorporated

G. SDI - Steel Door Institute

1.04 SUBMITTALS & SUBSTITUTIONS

- A. General: Submit in accordance with Conditions of the Contract and Division 1 Specification sections.
- B. Submit product data (catalog cuts) including manufacturers' technical product information for each item of door hardware, installation instructions, maintenance of operating parts and finish, and other information necessary to show compliance with requirements.
- C. Submit six (6) copies of schedule organized vertically into "Hardware Sets" with index of doors and headings, indicating complete designations of every item required for each door or opening. Include following information:
1. Include a Cover Sheet with;
 - a. Job Name, location, telephone number.
 - b. Architects name, location and telephone number.
 - c. Contractors name, location, telephone number and job number.
 - d. Suppliers name, location, telephone number and job number.
 - e. Hardware consultant's name, location and telephone number.
 2. Job Index information included;
 - a. Numerical door number index including; door number, hardware heading number and page number.
 - b. Complete keying information (referred to DHI hand-book "Keying Systems and Nomenclature"). Provision should be made in the schedule to provide keying information when available; if it is not available at the time the preliminary schedule is submitted.
 - c. Manufacturers' names and abbreviations for all materials.
 - d. Explanation of abbreviations, symbols, and codes used in the schedule.
 - e. Mounting locations for hardware.
 - f. Clarification statements or questions.
 - g. Catalog cuts and manufacturer's technical data and instructions.

3. Vertical schedule format sample:

Heading Number 1 (Hardware group or set number – HW -1)					
			(a) 1 Single Door #1 - Exterior from Corridor 101	(b)90°	(c) RH
			(d) 3' 0"x7' 0" x 1-3/4" x (e) 20 Minute (f) WD x HM		
(g) 1	(h)	(i) ea	(j) Hinges - (k) 5BB1HW 4.5 x 4.5 NRP (l) 1/2 TMS	(m) 626	(n) IVE
2	6AA	1 ea	Lockset - ND50PD x RHO x RH x 10-025 x JTMS	626	SCH

(a) - Single or pair with opening number and location. (b) - Degree of opening (c) - Hand of door(s) (d) - Door and frame dimensions and door thickness. (e) - Label requirements if any. (f) - Door by frame material. (g) - (Optional) Hardware item line #. (h) - Keypad Symbol. (i) - Quantity. (j) - Product description. (k) - Product Number. (l) - Fastenings and other pertinent information. (m) - Hardware finish codes per ANSI A156.18. (n) - Manufacture abbreviation.

- D. Make substitution requests in accordance with Division 1. Substitution requests must be made prior to bid date. Include product data and indicate benefit to the project. Furnish samples of any proposed substitution.
- E. Keying Schedule: Submit separate detailed schedule indicating clearly how the Owner's final instructions on keying of locks has been fulfilled.
- F. Templates for doors, frames, and other work specified to be factory prepared for the installation of door hardware. Check shop drawings of other work to confirm that adequate provisions are made for locating and installing door hardware to comply with indicated requirements.
- G. Furnish as-built/as-installed schedule with close-out documents, including keying schedule and transcript, wiring/riser diagrams, manufacturers' installation and adjustment and maintenance information.
- H. Fire Door Assembly Testing: Submit a written record of each fire door assembly to the Owner to be made available to the Authority Having Jurisdiction (AHJ) for future building inspections.

1.05 QUALITY ASSURANCE

- A. Obtain each type of hardware (latch and lock sets, hinges, closers, exit devices, etc.) from a single manufacturer.

- B. Supplier Qualifications: A recognized architectural door hardware supplier, with warehousing facilities in the project's vicinity, that has a record of successful in-service performance for supplying door hardware similar in quantity, type, and quality to that indicated for this project and that employs an experienced architectural hardware consultant (AHC) who is available to Owner, Architect, and Contractor, at reasonable times during the course of the Work, for consultation.
 - 1. Responsible for detailing, scheduling and ordering of finish hardware.
 - 2. Meet with Owner to finalize keying requirements and to obtain final instructions in writing.
 - 3. Stock parts for products supplied and are capable of repairing and replacing hardware items found defective within warranty periods.
- C. Hardware Installer: Company specializing in the installation of commercial door hardware with five years documented experience.
- D. Fire-Rated Openings: Provide door hardware for fire-rated openings that complies with NFPA Standard No. 80 and requirements of authorities having jurisdiction. Provide only items of door hardware that are listed and tested by UL or Warnock Hersey for given type/size opening and degree of label. Provide proper latching hardware, door closers, approved-bearing hinges and seals whether listed in the Hardware Schedule or not.
 - 1. Where emergency exit devices are required on fire-rated doors, (with supplementary marking on doors' UL labels indicating "Fire Door to be Equipped with Fire Exit Hardware") provide UL label on exit devices indicating "Fire Exit Hardware".
- E. Exit Doors: Operable from inside with single motion without the use of a key or special knowledge or effort.

1.06 DELIVERY, STORAGE AND HANDLING

- A. Coordinate delivery of packaged hardware items to the appropriate locations (shop or field) for installation.
- B. Hardware items shall be individually packaged in manufacturers' original containers, complete with proper fasteners. Clearly mark packages on outside to indicate contents and locations in hardware schedule and in work.
- C. Provide locked storage area for hardware, protect from moisture, sunlight, paint, chemicals, etc.
- D. Inventory door hardware jointly with representatives of hardware supplier and hardware installer until each is satisfied that count is correct.

1.07 WARRANTY

- A. Provide warranties of respective manufacturers' regular terms of sale from day of final acceptance as follows:

1. Locksets: Ten (10) years.
2. Closers: Thirty (30) years, except electronic closers shall be two (2) years.
3. Exit devices: Three (3) years.
4. All other hardware: Two (2) years.

1.08 MAINTENANCE

- A. Maintenance Tools and Instructions: Furnish a complete set of specialized tools and maintenance instructions as needed for Owner's continued adjustment, maintenance, and removal and replacement of door hardware.

1.09 PRE-INSTALLATION CONFERENCE

- A. Convene a pre-installation conference at least one week prior to beginning work of this section.
- B. Attendance: Architect, Construction Manager, Contractor, Hardware Supplier, Installer, Key District Personnel, and Project Inspector.
- C. Agenda: Review hardware schedule, products, installation procedures and coordination required with related work.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

	<u>Item</u>	<u>Manufacturer</u>	<u>Acceptable Substitutes</u>
A.	Hinges	Ives	Hager, Stanley, McKinney
B.	Locks, Latches & Cylinders	Schlage	Or Approved Equal
C.	Exit Devices	Von Duprin	Or Approved Equal
D.	Closers	LCN	Or Approved Equal
E.	Push, Pulls & Protection Plates	Ives	Trimco, BBW, DCI
F.	Flush Bolts	Ives	Trimco, BBW, DCI
G.	Dust Proof Strikes	Ives	Trimco, BBW, DCI
H.	Coordinators	Ives	Trimco, BBW, DCI
I.	Stops	Ives	Trimco, BBW, DCI
J.	Overhead Stops	Glynn-Johnson	Or Approved Equal

K.	Thresholds	National Guard	Pemko, Zero
L.	Seals & Bottoms	National Guard	Pemko, Zero

2.02 MATERIALS

- A. Hinges: Exterior out-swinging door butts shall be non-ferrous material and shall have stainless steel hinge pins. All doors to have non-rising pins.
1. Hinges shall be sized in accordance with the following:
 - a. Height:
 - 1) Doors up to 41" wide: 4-1/2" inches.
 - 2) Doors 42" to 48" wide: 5 inches.
 - b. Width: Sufficient to clear frame and trim when door swings 180 degrees.
 - c. Number of Hinges: Furnish 3 hinges per leaf to 7'-5" in height. Add one for each additional 2 feet in height.
 2. Furnish non-removable pins (NRP) at all exterior out-swing doors and interior key lock doors with reverse bevels.
- B. Continuous Hinges: As manufactured by Ives, an Ingersoll-Rand Company. UL rated as required.
- C. Heavy Duty Cylindrical Locks and Latches: Schlage "ND" Series as scheduled with "Rhodes" design, fastened with through-bolts and threaded chassis hubs.
1. Locksets to comply with ANSI A156.2, Series 4000, Grade 1; tested to exceed 3,000,000 cycles. Locksets shall meet ANSI A117.1, Accessible Code.
 2. Chassis: One piece modular assembly and multi-functional allowing function interchange without disassembly of lockset.
 3. Spindle shall be deep-draw manufactured not stamped. Spindle and spring cage to be one-piece integrated assembly.
 4. Anti-rotation plate to be interlocking to the lock chassis. Lock design utilizing bit-tabs are not acceptable.
 5. Lever Trim: Accessible design, bi-directional, independent assemblies.
 6. Locks shall be of such construction that when locked, the door may be opened from within by using lever and without the use of a key or special knowledge.
 7. Thru-bolts to secure anti-rotation plate without sheer line. Fully threaded thru-bolts are not acceptable.
 8. Spring cage to have double compression springs. Manufacturers utilizing torsion springs are not acceptable.
 9. Latchbolt to be steel with minimum 1/2" throw deadlatch on keyed and exterior functions; 3/4" throw anti-friction latchbolt on pairs of doors.
 10. Strikes: ANSI curved lip, 1-1/4" x 4-7/8", with 1" deep dust box (K510-066). Lips shall be of sufficient length to clear trim and protect clothing.
- D. Extra Heavy Duty Commercial Mortise Locks: Schlage "L" Series as scheduled with "06" Style Lever and "A" Style Rose. To be used at Staff Toilet Rooms.

1. Locksets to comply with ANSI A156.13, Series 1000, Operational Grade 1 and Security Grade 1 with all standard trims. Locksets shall also comply with UL10C Positive Pressure requirements
2. Lock case shall be manufactured with heavy 12 gauge steel with fully wrapped design. Lock cases with exposed edges are not acceptable. Lock case shall be multi-functional allowing transformation to a different function without opening lock case.
3. Latchbolt shall have $\frac{3}{4}$ " throw and be non-handed, field reversible without opening the lock case. Solid latchbolts and / or plastic anti-friction devices are not acceptable.
4. The deadbolt, when used, shall be 1" throw stainless steel with a $\frac{3}{4}$ " internal engagement when fully extended.
5. All trim shall be through-bolted with the spring cages supporting the trim attached to the lock cases to prevent torquing.
6. Levers to have independent rotation in both directions. Exterior lever assembly to be one-piece design attached by threaded bushing. Interior lever assembly shall be attached by screwless shank
7. Thru-bolt lever assemblies through the door for positive interlock. Locks using a through the door spindle for attachment are not acceptable. Spindles shall be independent, designed to "break-away" at a maximum of 75psi torque.
8. Hand of lock chassis to be changeable by simply moving one screw from one side to the case to the other and pulling and reversing the latchbolt.
9. Cylinders to be secured by a cast stainless steel, dual retainer. Locks utilizing screws and / or stamped retainers are not acceptable.

E. Deadlocks: Rotating cylinder trim rings of attack-resistant design. Mounting plates and actuator shields of plated cold-rolled steel. Mounting screws of $\frac{1}{4}$ " diameter steel and protected by drill-resistant ball bearings. Steel alloy deadbolt with hardened steel roller. Strike alloy deadbolt with reinforcer and two 3" long screws. ANSI A156.5, 2001 Grade 1 certified.

F. Exit devices: Von Duprin as scheduled.

1. Provide certificate by independent testing laboratory that device has completed over 1,000,000 cycles and can still meet ANSI/BHMA A156.3 - 2001 standards.
2. All internal parts shall be of cold-rolled steel with zinc dichromate coating.
3. Mechanism case shall have an average thickness of .140".
4. Compression spring engineering.
5. Non-handed basic device design with center case interchangeable with all functions.
6. All devices shall have quiet return fluid dampeners.
7. All latchbolts shall be deadlocking with $\frac{3}{4}$ " throw and have a self-lubricating coating to reduce friction and wear.
8. Device shall bear UL label for fire and or panic as may be required.
9. All surface strikes shall be roller type and utilize a plate underneath to prevent movement.
10. All Exit Devices to be sex-bolted to the doors.
11. Panic Hardware shall comply with CBC Section 11B-404.2.7 and shall be mounted between 34" and 44" above the finished floor surface. The unlatching force shall not exceed 15 lbs. applied in the direction of travel PER 2013 CBC 11B section 404.2.9 exception 3.

G. Closers: LCN as scheduled. Place closers inside building, stairs, room, etc.

1. Door closer cylinders shall be of high strength cast iron construction with double heat treated pinion shaft to provide low wear operating capabilities of internal parts throughout the life of the installation. All door closers shall be tested to ANSI/BHMA A156.4 test requirements by a BHMA certified testing laboratory. A written certification showing successful completion of a minimum of 10,000,000 cycles must be provided.
2. All door closers shall be fully hydraulic and have full rack and pinion action with a shaft diameter of a minimum of 11/16 inch and piston diameter of 1 inch to ensure longevity and durability under all closer applications.
3. All parallel arm closers shall incorporate one piece solid forged steel arms with bronze bushings. 1-9/16" steel stud shoulder bolts, shall be incorporated in regular arms, hold-open arms, arms with hold open and stop built in. All other closers to have forged steel main arms for strength, durability, and aesthetics for versatility of trim accommodation, high strength and long life.
4. Closers shall be installed to permit doors to swing 180 degrees.
5. All closers shall utilize a stable fluid withstanding temperature range of 120 degrees F. to -30 degrees F. without requiring seasonal adjustment of closer speed to properly close the door.
6. Provide the manufactures drop plates, brackets and spacers as required at narrow head rails and special frame conditions. NO wood plates or spacers will be allowed.
7. Maximum effort to operate closers shall not exceed 5 lbs., such pull or push effort being applied at right angles to hinged doors. Compensating devices or automatic door operators may be utilized to meet the above standards. When fire doors are required, the maximum effort to operate the closer may be increased but shall not exceed 15 lbs. when specifically approved by fire marshal. All closers shall be adjusted to operate with the minimum amount of opening force and still close and latch the door. These forces do not apply to the force required to retract latch bolts or disengage other devices that hold the door in a closed position. Door shall take at least 3 seconds to move from an open position of 70 degrees to a point of 3 inches from the latch jamb. Reference 2013 CBC 11B Section 404.2.8.
8. Provide sex-bolted or through bolt mounting for all door closers.

H. Flush Bolts & Dust Proof Strikes: Automatic Flush Bolts shall be of the low operating force design. Utilize the top bolt only model for interior doors where applicable and as permitted by testing procedures.

1. Manual flush bolts only permitted on storage or mechanical openings as scheduled.
2. Provide dust proof strikes at openings using bottom bolts.

I. Door Stops:

1. Unless otherwise noted in Hardware Sets, provide wall type with appropriate fasteners. Where wall type cannot be used, provide floor type. If neither can be used, provide overhead type.

2. Do not install floor stops more than four (4) inches from the face of the wall or partition (CBC Section 1133B.8.6).
 3. Overhead stops shall be made of stainless steel and non-plastic mechanisms and finished metal end caps. Field-changeable hold-open, friction and stop-only functions.
- J. Protection Plates: Fabricate either kick, armor, or mop plates with four beveled edges. Provide kick plates 10" high and 2" LDW. Sizes of armor and mop plates shall be listed in the Hardware Schedule. Furnish with machine or wood screws of bronze or stainless to match other hardware.
- K. Thresholds: As Scheduled and per details.
1. Thresholds shall not exceed 1/2" in height, with a beveled surface of 1:2 maximum slope.
 2. Set thresholds in a full bed of butyl-rubber or polyisobutylene mastic sealant complying with requirements in Division 7 "Thermal and Moisture Protection".
 3. Use 1/4" fasteners, red-head flat-head sleeve anchors (SS/FHSL).
 4. Thresholds shall comply with 2013 CBC Section 11B-404.2.5.
- L. Seals: Provide silicone gasket at all rated and exterior doors.
1. Fire-rated Doors, Resilient Seals: UL10C Classified, Category "J" listed seals complying with NFPA 80 & NFPA 252 Standards. Coordinate with selected door manufacturers' and selected frame manufacturers' requirements.
 2. Fire-rated Doors, Intumescent Seals: Furnished by selected door manufacturer. Category "G" furnish fire-labeled opening assembly complete and in full compliance with NFPA 252. Where required, intumescent seals vary in requirement by door type and door manufacture -- careful coordination required.
 3. Smoke & Draft Control Doors, Provide Category "H" listed seals complying with NFPA 105 for use on "S" labeled Positive Pressure door assemblies.
- M. Door Shoes & Door Top Caps: Provide door shoes at all exterior wood doors and top caps at all exterior out-swing doors.
- N. Silencers: Furnish silencers for interior hollow metal frames, 3 for single doors, 2 for pairs of doors. Omit where sound or light seals occurs, or for fire-resistive-rated door assemblies.

2.03 KEYING

- A. Furnish a Schlage masterkey system as directed by the owner or architect.
- B. The General Contractor shall be responsible in providing the District cut keys for all new locksets installed at the following rooms: entry doors, classroom, offices, lounges, corridors, multi-purpose rooms and staff restrooms/lounges and workrooms.

- C. KEYING SYSTEM: Provide keyed cylinders to provide master and grand master keying system. Design system to provide highest possible security consistent with type of system being used.
- D. Furnish all cylinders in the Schlage conventional style except the exit device and removable mullion cylinders which will be supplied in Schlage Full Size Interchangeable Core (FSIC).
- F. Furnish mechanical keys as follows:
 - 1. Lock, Group or Set of Locks – 3 each.
 - 2. Each Cylinder Lock (except keyed-alike Locks – 3 each.
 - 3. Each Keyed-alike Group – 3 each.
 - 4. Each Master Keyed Set – 3 each.
 - 5. Each Grand Master Keyed Set – 3 each.
 - 6. Control Keys for Removable Core System.
- G. Provide change keys in individual envelopes for each cylinder delivered. Envelopes shall have respective door identification numbers. Stamp each change key with change number and stamp set symbol, and stamp each master key with set symbol as applicable. In addition to change number stamp keys "Do Not Duplicate" and tag. In addition to above keys, provide fifty (50) blank keys to the District Lock Shop Supervisor. Any extra keys requested by the school administration beyond the stated number of blank keys will be provided by the District Lock Shop.

2.04 FINISHES

- A. Generally to be satin chrome US26D (626 on bronze and 652 on steel) unless otherwise noted.
- B. Furnish push plates, pull plates and kick or armor plates in satin stainless steel US32D (630) unless otherwise noted.
- C. Door closers shall be powder-coated to match other hardware, unless otherwise noted.
- D. Aluminum items to be finished anodized aluminum except thresholds which can be furnished as standard mill finish.

2.05 FASTENERS

- A. Screws for strikes, face plates and similar items shall be flat head, countersunk type, provide machine screws for metal and standard wood screws for wood.
- B. Screws for butt hinges shall be flathead, countersunk, full-thread type.
- C. Fastening of closer bases or closer shoes to doors shall be by means of sex bolts and spray painted to match closer finish.
- D. Provide expansion anchors for attaching hardware items to concrete or masonry.

- E. All exposed fasteners shall have a Phillip's head.
- F. Finish of exposed screws to match surface finish of hardware or other adjacent work.
- G. All Exit Devices and Lock Protectors shall be fastened to the door by the means of sex bolts or through bolts.

PART 3 - EXECUTION

3.01 INSPECTION

- A. Verify that doors and frames are square and plumb and ready to receive work and dimensions are as instructed by the manufacturer.
- B. Beginning of installation means acceptance of existing conditions.
- C. Fire-Rated Door Assembly Inspection: Upon completion of the installation, all fire door assemblies shall be inspected to confirm proper operation of the closing device and latching device and that only the manufacturer's furnished fasteners are used for installation and that it meets all criteria of a fire door assembly per NFPA 80 (Standard for Fire Doors and Other Opening Protectives) 2007 Edition. A written record shall be maintained and transmitted to the Owner to be made available to the Authority Having Jurisdiction (AHJ). The inspection of the swinging fire doors shall be performed by a certified FDAI (Fire Door Assembly Inspector) with knowledge and understanding of the operating components of the type of door being subjected to the inspection. The record shall list each fire door assembly throughout the project and include each door number, an itemized list of hardware set components at each door opening, and each door location in the facility.

3.02 INSTALLATION

- A. Install hardware in accordance with manufacturer's instructions and requirements of DHI.
- B. Use the templates provided by hardware item manufacturer.
- C. Mounting heights for hardware shall be as recommended by the Door and Hardware Institute. Operating hardware will to be located between 30" and 44" AFF.
- D. Set units level, plumb and true to line and location. Adjust and reinforce the attachment substrate as necessary for proper installation and operation.
- E. Drill and countersink units that are not factory-prepared for anchorage fasteners. Space fasteners and anchors in accordance with industry standards.
- F. Set thresholds for exterior doors in full bed of butyl-rubber sealant.

- G. If hand of door is changed during construction, make necessary changes in hardware at no additional cost.

3.03 ADJUST AND CLEAN

- A. Adjust and check each operating item of hardware and each door, to ensure proper operation or function of every unit. Replace units which cannot be adjusted to operate freely and smoothly as intended for the application made.
- B. Clean adjacent surface soiled by hardware installation.
- C. Final Adjustment: Wherever hardware installation is made more than one month prior to acceptance or occupancy, return to that work area and make final check and adjustment of all hardware items in such space or area. Clean operating items as necessary to restore proper function and finish of hardware and doors. Adjust door control devices to compensate for final operation of heating and ventilating equipment.
- D. Instruct Owner's Personnel in proper adjustment and maintenance of hardware finishes, during the final adjustment of hardware.
- E. Continued Maintenance Service: Approximately six months after the completion of the project, the Contractor accompanied by the Architectural Hardware Consultant, shall return to the project and re-adjust every item of hardware to restore proper functions of doors and hardware. Consult with and instruct Owner's personnel in recommended additions to the maintenance procedures. Replace hardware items which have deteriorated or failed due to faulty design, materials or installation of hardware units. Prepare a written report of current and predictable problems (of substantial nature) in the performance of the hardware.

3.04 HARDWARE LOCATIONS

- A. Conform to 2013 CBC 11B; and ADAAG; and the drawings for access-compliant positioning requirements for the disabled.

3.05 FIELD QUALITY CONTROL

- A. Architectural Hardware Consultant (AHC) to inspect installation and certify that hardware and its installation have been furnished and installed in accordance with manufacturer's instructions and as specified herein.

3.06 SCHEDULE

- A. The items listed in the following schedule shall conform to the requirements of the foregoing specifications.
- B. The Door Schedule on the Drawings indicates which hardware set is used with each door.

Manufacturers Abbreviations (Mfr.)

GLY = Glynn-Johnson Corp
IVE = Ives

LCN = LCN
NGP = National Guard Products

SCH = Schlage Lock Company
VON = Von Duprin

Overhead Door Stop & Holders
Hinges, Bolts, Coordinators, Dust Proof
Strikes, Kick Plates, Door Stops &
Silencers
Door Closers
Thresholds, Gasketing & Weather-
stripping
Locks, Latches & Cylinders
Exit Devices

HARDWARE GROUP NO. 01

DOORS 101 & 101.1, 103

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
2	EA	CONT. HINGE	112HD	628	IVE
1	EA	REMOVABLE MULLION	4954-STAB-MT54	689	VON
1	EA	PANIC HARDWARE	AX-99-NL-OP-110MD	626	VON
1	EA	PANIC HARDWARE	AX-99-EO	626	VON
1	EA	RIM CYLINDER	20-057-ICX	626	SCH
1	EA	FSIC CORE	23-030	626	SCH
			"E" KEYWAY		
1	EA	DOOR PULL	VR910 DT	630	IVE
1	EA	DOOR PULL	VR910 NL	630	IVE
2	EA	SURFACE CLOSER	4040XP EDA	689	LCN
2	EA	OVERHEAD STOP & HOLD	100H	BLK	IVE
2	EA	DOOR SWEEP	200NA	CL	NGP
1	EA	THRESHOLD	PER DETAIL	AL	NGP

WEATHER-STRIPPING FURNISHED BY FRAME MANUFACTURER

HARDWARE GROUP NO. 02

DOORS 102, 102.1

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	CONT. HINGE	112HD	628	IVE
1	EA	PANIC HARDWARE	99-NL-OP-110MD	626	VON
1	EA	RIM CYLINDER	20-057-ICX	626	SCH
1	EA	FSIC CORE	23-030	626	SCH
			"E" KEYWAY		
1	EA	DOOR PULL	VR910 NL	630	IVE
1	EA	OH STOP & HOLDER	100H	630	GLY
1	EA	SURFACE CLOSER	4040XP EDA	689	LCN
1	EA	DOOR SWEEP	200NA	CL	NGP
1	EA	THRESHOLD	PER DETAIL	AL	NGP

WEATHER-STRIPPING FURNISHED BY FRAME MANUFACTURER

END OF DOCUMENT

GLAZING

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. Provide glass and glazing for doors, door lites, transoms, sidelights, and windows.

1.02 RELATED SECTIONS

- A. Section 07900 - Joint Sealers: Sealant and back-up materials.
- B. Section 08110 - Steel Doors and Frames
- D. Section 08400 - Aluminum Storefront
- E. Section 08650 - Aluminum Windows

1.03 REFERENCES

- A. Flat Glass Marketing Association (FGMA): Glazing Manual and Sealant Manual.
- B. American National Standards Institute (ANSI)
- C. American Society of Testing and Materials (ASTM)
- D. American Architectural Manufacturers Association (AAMA)
- E. Glass Association of North America (GANA)

1.04 DESIGN REQUIREMENTS

- A. Glass design to meet DSA requirements as specified in 2013 California Building Code (CBC) Title 24 Part 2, Section 2403, Table 2403.2.1.
- B. Safety Glass Standard: CPSC 16 CFR 1201, ANSI Z97.1, and California Building Code.

1.05 QUALITY ASSURANCE

- A. Perform work in accordance with GANA Glazing Manual and FGMA Sealant Manual for glazing installation methods.
- B. Comply with manufacturer's written instructions.
- C. Materials to be delivered to the job site with the manufacturer's original labels intact and legible.

1.06 SUBMITTALS

- A. Submit under provisions of Section 01300.

B. Product Data:

1. Glass Types: Provide structural, physical and environmental characteristics, size limitations, special handling or installation requirements.
2. Glazing Compounds: Provide chemical, functional, and environmental characteristics, limitations, special application requirements. Identify available colors.

D. Samples

1. Two 6-inch squares of each type of glass product used showing coloration.
2. 2-inch long bead of glazing sealant, selected color.

1.07 QUALIFICATIONS

- A. Installers: Company specializing in the installation of flat glass with minimum 5 years documented experience and approved by the manufacturers.
- B. Solar Control Film Installer Qualifications: The window film installer with minimum 5 years documented experience installing this type of product.

1.08 WARRANTY

- A. Glazing assemblies shall be warranted against water leakage for a period of (5) five years.

1.09 DELIVERY, STORAGE, AND PROTECTION

- A. Deliver products to site, store, protect and handle under provisions of Section 01610.
- B. Deliver, store, and handle materials in manner to prevent damaging.
- C. Deliver and store packaged materials in original containers bearing manufacturer's name.
- D. Deliver glass affixed with manufacturer's labels and do not remove labels prior to installation, inspection, or final approval.

1.10 ENVIRONMENTAL REQUIREMENTS

- A. Do not install glazing when ambient temperature is less than 50 degrees F.
- B. Maintain minimum ambient temperature before, during and 24 hours after installation of glazing compounds.

1.11 COORDINATION

- A. Coordinate the work with glazing frames, wall openings, and perimeter air and vapor seal to adjacent work.

PART 2 - PRODUCTS

2.01 GLAZING

- A. Laminate Glass: At all locations unless otherwise indicated. Provide laminated, annealed glass for all exterior windows. Glass is 7/32" thick with interlayer of .030 Poly-Vinyl Butryl (PVB). Provide etched identifying labels on the glass.
- B. Heat Treated and Tempered Glass: Meet the requirements of ASTM C 1048-97b, kinds, conditions, types, classes, styles, and forms specified below. Where indicated and where required in hazardous locations as defined in CBC Title 24 Part 2 Sec. 2406.4, glass shall be tempered.
 1. Tempered Clear Float Glass: Kind FT (fully tempered), Condition A (uncoated surfaces), Type I (transparent glass, flat), Class 1 (clear), Quality q³ (glazing select).
- B. Vision Lite Kits & Louvers
 1. Acceptable Manufacturers:

- a. Anemostat, "LoPro"

2.02 ACCESSORIES

- A. Glazing Sealant: ASTM C920, Type S, Grade NS, elastomeric one-component silicone glazing sealants as recommended by sealant manufacturer for application involved.
 1. Acceptable Manufacturers:
 - a. Dow Corning Corp., "795 Silicone Building Sealant"
 - b. General Electric Co., "Silglaze N"
 - c. Pecora Corp.
 - d. Tremco Corp.
 - e. Substitutions: Refer to Section 01630.
 2. Color: As selected by Architect from manufacturer's full range of available colors.
- B. Setting blocks: Neoprene; 70-90 durometer hardness; 4" long x 3/8" thick x 1/4" high standard setting blocks.

- C. Spacer Shims: Silicone compatible, 50 Shore A durometer hardness; corners shall be vulcanized; 3" long x 3/32" thick x 1/4" high.
- D. Glazing Tape: Preformed butyl compound with integral resilient tube spacing device; 10-15 Shore A durometer hardness; coiled on release paper; black color.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Examine openings to receive glass for defects that would affect glass and glazing work. Verify that glazing channels are free of irregularities, burrs, moisture, debris, coatings and foreign matter that could adversely affect glass installation and performance.
- B. Verify that openings for glazing are correctly sized and free of deviations beyond allowable tolerances for the installation of sealant.
- C. Verify that surfaces of glazing channels or recesses are clean, free of obstructions, and ready to receive glazing.
- D. Verify that glass is free of face and edge imperfections and damage.
- D. Do not start glazing until defects have been corrected. Beginning installation means acceptance of substrate.

3.02 PREPARATION

- A. Clean glazing channels and framing members to receive glass immediately before glazing; remove coatings not firmly bonded to substrate.
- B. Seal porous glazing channels or recesses with primer or sealer compatible with substrate. Apply primer to joint surfaces where recommended by sealant manufacturer.
- C. Clean contact surfaces with solvent and wipe dry.
- D. Prime surfaces specified to receive sealant.
- E. Field Measurements:
 - 1. Measure size of each frame and opening to receive glass.
 - 2. Determine actual glass sizes within dimensions and tolerances established, allowing for edge clearances.

3.03 INSTALLATION

- A. General Glazing Requirements: Conform to the guidelines for glazing contained in the GANA "Glazing Manual", the FGMA Sealant Manual, and supplemented by the glass and sealant manufacturer's recommendations. Shop cut glass; cut clean, straight edges, free from chips and fissures. At fire rated opening, install in accordance to approved UL or WHI Fire Rated Assembly Listing.
 - 1. Manufacturer's labels, showing strength, grade, thickness, type, and quality shall be required on each piece of factory cut glass. Labels shall remain on glass until it has been set, inspected, and reviewed.
 - 2. Sizes indicated are approximate. Actual sizes shall be determined by measuring in the field.
 - 3. All glazing shall be inside glazed.
- D. Place setting blocks at quarter points in thin course of sealant.
- E. Install removable stops with glass centered/ front set in space with spacer shims at 2'-0" intervals on both sides of glass, 1/4" below sightline.
- F. Sealant Glazing: Fill gap between glass and stops with sealant to depth equal to bite of frame on glass but not more than 3/8" below sightline.
 - 1. Apply sealant to uniform and level line, flush with sightline; tool or wipe sealant surface for smooth appearance; at exterior locations tool sealant so water is carried away from glass.
 - 2. Apply sealants within temperature ranges specified by manufacturer.
 - 3. Keep glazing tape on the outside facing side of the sash opening and 3/16" to 1/4" below the sight line.
- G. Do not field cut, nip, or abrade glass.
- H. Gasket Glazing: Miter-cut and bond ends together at corners to prevent gaskets from pulling away at corners.
- I. Unify appearance of each series of lights by setting each piece to match others, as nearly as possible, with pattern, draw, and bow oriented in the same direction.
- J. Prevent glazing materials containing solvent or oil from coming into contact with laminated glass.

3.04 INSTALLATION - INTERIOR DRY METHOD (for interior door lites)

- A. Install inside glazing by dry method.
- B. Cut glazing tape to length and set against permanent stops.

- C. Place setting blocks at quarter points.
- D. Rest glass on setting blocks and push against tape for full contact of tape at perimeter of pane.
- E. Place glazing tape on free perimeter of pane in same manner as described above.
- F. Install removeable stop without displacement of tape. Exert pressure on tape for full continuous contact.
- G. Knife trim protruding tape.
- H. Provide a continuous bead of sealant at exterior side of each lite where the glazing is held by the frame.

3.05 CLEANING

- A. Cracked, broken, and imperfect glass shall be replaced at no additional cost to the Owner. Protect all glass against damage from weld spatter, stains from alkaline or fluorine materials, abrasive materials or other damage until final acceptance of the Project. Where it is necessary to alert workmen that openings have been glazed, use tape or banners attached to framing. Do not apply paint or other foreign matter directly on the glass.
- B. Remove nonpermanent labels immediately after sealant cures; cure sealants for high early strength and durability.
- C. Remove and replace glass which is broken, chipped, cracked, abraded or damaged during construction period, including natural causes, accidents and vandalism.
- D. Clean both sides of glass prior to turning project over to Owner.

END OF DOCUMENT

GYPSUM BOARD

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes: Requirements for furnishing and installing gypsum board systems and associated accessories.
- A. Related Sections:
 - 1. Section 09100 – Metal Support Systems.
 - 2. Section 09900 – Paints and Coatings

1.02 DELIVERY, STORAGE, AND HANDLING

- A. Comply with requirements of Section 01600.
- B. Deliver fire-rated materials bearing the testing authority's label and fire-rating classification.
- C. Stack sheets so that long lengths are not over short lengths.
- D. Handle sheets carefully to avoid damaging faces and edges.

1.03 ENVIRONMENTAL REQUIREMENTS

- A. Temperature: Maintain ambient air temperature between 55 and 70 degrees F for 24 hours before, during, and after gypsum board and joint treatment application.
- B. Ventilation: Provide ventilation during and after adhesive and joint treatment applications; use temporary air circulators in areas lacking natural ventilation.

PART 2 - PRODUCTS

2.01 GENERAL

- A. Materials shall all be the products of the same manufacturer, or be recommended by the gypsum board manufacturer for use with his products.

2.02 GYPSUM BOARD

- A. Gypsum Board: ASTM C 630 Type 'X', with tapered and wrapped long edges; 5/8-inch thickness unless otherwise indicated, containing recycled gypsum core and 100% recycled paper facing. Use at all gypsum board locations unless otherwise indicated.
- B. Water-Resistant Gypsum Board: ASTM C 630 Type 'X', with tapered and wrapped long edges; 5/8-inch thickness unless otherwise indicated. Use at toilet room locations.
- C. Noise-Reducing Gypsum Board: ASTM C840 Type "X", with tapered and wrapped long edges; 5/8-inch thickness unless otherwise indicated, containing recycled gypsum core and 100% recycled paper facing. Use at panel closures between windows and partitions where indicated.

2.03 SOUND ISOLATION MATERIALS

- A. Acoustical Sealant: ASTM C919, type recommended for use in conjunction with gypsum board.
 - 1. Type: paintable, non-shrinking and non-cracking where exposed, nondrying, nonskinning, nonstaining, and nonbleeding where concealed.
- B. Compressible Tape: Closed-cell neoprene tape with adhesive back, Norton "Norseal V-730," Pemko "Weatherstrip Tape," or equal, of width and thickness required for the conditions of installation.

2.04 ACCESSORIES

- A. Fasteners, Corrosion-Resistant: ASTM C 954, bugle-head, Type S screws, of length to penetrate supporting metal members less than 3/8 inch nor more than 1/2 inch.
- B. Metal Trim: ASTM B 633, Type GS, standard type galvanized steel fabrications as follows, unless otherwise indicated.
 - 1. Corner Beads: Fine mesh, expanded-flange type, USG No. 800, or equal.
 - 2. Edge Trim: Channel type casing bead, 1/2-inch or 5/8-inch size, as required for thickness of gypsum board with which used, USG No. 801-A or 801-B, or equal.
- C. Joint-Treatment Materials: ASTM C 475-12e1; perforated joint tape; lime joint compound – all-purpose joint compound containing inert fillers and natural binder; prefill joint compound in conformance with CBC 2013, Chapter 25, Section 2506, Table 2506.2.
- D. Trim Adhesive: Type recommended by metal trim manufacturer.

- E. Fiberglass Reinforcing Tape: Self-adhering type.
- F. Miscellaneous Materials: Furnish all miscellaneous materials necessary for a complete installation, whether or not such products are specifically indicated or specified.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Verify that conditions are satisfactory for installation of gypsum board. If unsatisfactory conditions exist, do not begin installation until such conditions have been corrected.

3.02 PREPARATION

- A. Repair or replace improperly spaced and aligned framing, twisted and otherwise defective framing, and improperly placed and defective door frames.
- B. Fill gaps with compressible neoprene tape where gypsum board partitions abut window mullions or other surfaces, as indicated.

3.03 APPLICATION

- A. General: Apply materials in conformance with CBC Chapter 25, CBC Table 2506.2, the manufacturers' printed instructions, and as indicated.
- B. Gypsum Board:
 - 1. Install water-resistant fire rated gypsum board at all locations. See Section 09310 for ceramic tile substrates.
 - 2. Requirements of rated wall assemblies supercede any requirements indicated in this section.
 - 3. Apply sheets to framing using sheets of maximum size practical to minimize joints, neatly fitting edges and staggering joints.
 - 4. Cut and fit neatly around penetrations, locating back-to-back penetrations a minimum of one stud space apart to provide for the installation of insulation.
 - 5. For vertical surfaces, apply sheets with long edges parallel to supporting studs, centering abutting edges on a stud. Locate edge joints on different studs for sheets on opposite sides of partitions, and for successive layers of double-layer construction.
 - 6. For horizontal surfaces, apply sheets with long edges perpendicular to supporting studs, centering abutting ends on a joist, and staggering end joints in adjacent rows.
 - 7. Seal penetrations and cuts in acoustical partitions with a full bead of acoustical sealant at perimeter. Seal electrical boxes, washing machine boxes, and telephone plates on the back side with a sheet sealant pad; where wires enter boxes, seal openings airtight around wires and knockout openings.

8. Provide perimeter relief where gypsum board abuts other construction; finish edge of gypsum board with metal casing bead, sealing space between casing bead and structure with continuous sealant bead; seal at base of sheets as indicated.
9. Clean and prime existing steel subframes at jambs and head of existing windows prior to installation of gypsum board and sealant to allow bonding of sealant to frame. No part of existing steel subframes shall be exposed to view at the jambs and head.

C. Accessories:

1. Locate fasteners not more than 3/8 inch from edges and ends of sheets. Drive shanks perpendicular to surface of sheets, using power driver. Install screws using guns with magnetic bit and depth locator; do not hammer screws.
2. Set fastener heads slightly below surface of sheets, taking care not to break or strip paper face of sheets around fasteners. Stagger fasteners opposite each other on adjacent ends and edges. Omit fasteners at edges where metal edge trim will be installed.
3. Use floating-type interior angle construction for partitions where indicated or recommended by gypsum board manufacturer.
4. Locate fasteners along perimeter edge bearings and field bearings at not more than 12 inches on centers; do not locate fasteners on any bearing closer than 8 inches below top tracks of partitions secured to overhead structures.
5. Install metal trim at vertical and horizontal external corners and angles, junctions of gypsum board with other materials, unless otherwise indicated, and at exposed edges.
6. Apply fiberglass reinforcing tape at wall and corner junctures where new gypsum board abuts existing plaster.

D. Tolerances:

1. There shall be no measurable variation in any two-foot direction in gypsum board application, nor a maximum variation exceeding 1/8 inch in ten feet when a straightedge is laid on the surface in any direction.
2. Planes of abutting sheets shall not exceed a 1/16 inch offset.

E. Taping and Finishing:

1. Mix and apply joint compounds. Center joint tape over joint, embedding tape in a uniform layer of joint compound sufficiently thick and wide to ensure complete bond; apply skim coat while embedding tape.
2. Apply tape and metal trim to corners and angles, positioning straight and true to line.
3. Allow a minimum of 24 hours' drying time between applications of joint and finishing compounds.
4. Apply three coats minimum finishing compound over joint compound and tape, applying as many coats as necessary to ensure that joints and depressions will be invisible after application of finish.

- a. Apply first coat of finishing compound evenly, feathering out beyond edges of tape and joint compound.
 - b. After first coat has dried, apply second coat, feathering edges out beyond edges of preceding coat.
 - c. Apply third coat in same manner as specified for second coat.
5. Apply one coat of joint compound and two coats minimum of finishing compound to dimples at fastener heads and marred spots on face of sheets; apply in same manner as previously specified.
 6. Conceal exposed flanges of metal trim with two coats minimum of finishing compound, extending compound 8 to 10 inches on each side of trim piece.
 7. Lightly sand joints after each application of joint and finishing compound has dried.
 8. Finished surfaces shall be plumb and even within specified tolerances.
 9. Provide a smooth level 5 finish per GA-214-07.

3.04 COMPLETION

- A. After completion of installation, maintain temperature and humidity conditions in accordance with the gypsum board manufacturer's printed instructions.

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PITTSBURG UNIFIED SCHOOL DISTRICT
Highlands Elementary School
Window Replacement In-Kind
PLUM architects

GYPSUM BOARD
DOCUMENT 09 2 50-6

PAINTS AND COATINGS

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes: Furnishing of materials and equipment and completion of painting and painter's finish on new and existing exposed exterior and interior surfaces as required to complete the painting and finishing as indicated and specified.
- B. Related Documents: The Conditions of the Contract and Division 1 apply to this section as fully as if repeated herein.
 - 1. Painting and priming requirements for structural steel are specified in Section 05120.
 - 2. Sealing and finishing of wood floors is specified in Section 09610.
 - 3. Epoxy mosaic composition flooring is specified in Section 09720.
- C. All existing painted surfaces and any new items installed are to receive paint with the following exceptions:
 - 1. Factory-finished items, unless otherwise specified.
 - 2. Surfaces scheduled to be unfinished or exposed.
 - 3. Wall and ceiling surfaces permanently concealed from view, and adjacent concealed ducts, pipes, and conduit.
 - 4. Stainless steel, bronze, aluminum, and chromium plate, unless otherwise specified.
 - 5. Nameplates.
 - 6. Other items specified herein and in the individual Specification Sections.
- D. For additional information, contact:
 - Maintenance and Operations
 - Maintenance Supervisor
 - Tel.: (925) 473-2328

1.02 SUBMITTALS

- A. Comply with requirements of Section 01300.

- B. Product Data: Manufacturer's technical information, including paint label analysis and application instructions for each material.
- C. Samples: Prepare samples of colors and textures based upon the Architect's selections and submit them for review.
 - 1. Concrete: Two 4" square samples for each color and finish.
 - 2. Concrete Masonry: Two 4"x8" samples of masonry, with mortar joint in the middle, for each color and finish.
 - 3. Wallboard: Two 8" x 8" samples on hardboard for each type, color and finish texture paint selected in a stair step manner so all required coats show.
 - 4. Painted Wood: Two 1" by 4" by 24" long strips on wood of type to be used for the work, for each stain color and finish selected, arranged in a stair step manner so all required coats show.
 - 5. Ferrous Metal: Provide two 4-inch- (100-mm-) square samples of flat metal and two 8-inch- (200-mm-) long samples of solid metal for each color and finish.
 - 6. Cement Plaster: Two 12" x 12" samples on cement plaster for each type, color and finish texture paint selected in a stair step manner so all required coats show.

1.03 QUALITY ASSURANCE

- A. Regulatory Requirements: Amount of volatile organic compounds released into the atmosphere from paint materials shall comply with applicable air quality requirements of the Bay Area Air Quality Management District, Federal or State guidelines, whichever is more strict.
- B. Paint for interior application shall be rated Class II when tested in accordance with ASTM E 84.

1.04 DELIVERY, STORAGE, AND HANDLING

- A. Comply with requirements of Section 01600.
- B. Deliver paint in manufacturer's labeled and sealed containers. Labels shall include manufacturer's name, brand, type, batch number, date of manufacture, color of paint and instructions for reducing. Thin only in accordance with printed directions of manufacturer. Thinning shall comply with the regulations of the air pollution control district having jurisdiction.

- C. Storage and Handling: Store paint materials and equipment, when not in actual use, in places specifically assigned for that purpose. Ventilate storage space and provide fire protection. Mix and handle paint in these assigned areas; use metal containers for mixing and handling and designed for safety. Remove paint materials, including rags, tarpaulins, mixers, and empty containers and filled or partially filled containers from the building areas at the close of each working day.

1.05 ENVIRONMENTAL REQUIREMENTS

- A. Follow manufacturers' printed instructions for environmental conditions for application of materials.
- B. Provide ventilation for interior application of materials.
- C. Do not apply materials in spaces in which open flames are used, in which welding is being performed, and in which dust is being generated.
- D. Do not apply materials to exterior surfaces when fog, mist, or rain is present. Do not apply paint when relative humidity exceeds 85 percent; or to damp or wet surfaces.
- E. Apply water-base paints when temperature of surfaces and surrounding air are between 50 and 90 degrees F.
- F. Apply solvent-thinned paints when temperature of surfaces and surrounding air are between 45 and 95 degrees F.
- G. Painting may be continued during inclement weather if areas to be painted are enclosed and heated within temperature limits specified.

1.06 EXTRA MATERIALS

- A. Furnish extra paint materials from the same production run as the materials applied and in the quantities described below. Package with protective covering for storage and identify with labels describing contents. Deliver extra materials to Owner.
- B. Quantity: Furnish Owner with an additional 3 percent, but not less than one gallon or one case, as appropriate, of each material and color applied.

1.07 WARRANTY

- A. In addition to the warranty and correction of work requirements of the General Conditions, warrant painting and finishing against peeling, fading, cracking, blistering, or crazing for a period of 2 years from the date of "Notice of Completion". The written warranty shall include materials and labor. The warranty shall be signed by the paint manufacturer, the painter and the Contractor and shall be submitted in accordance with Section 01770.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Substitutions: Materials will be considered for substitution subject to requirements specified in Division 1. Submit written justification for the substitution. Submit chemical formulations of materials proposed for substitution to demonstrate that formulation of substitution is similar to formulation of specified product; or results test showing that performance of substitution is equivalent to performance of specified product.
- B. See paint schedule for acceptable manufacturers and specific products. See Appendix A at the end of this Section for Kelly Moore Paints California Cross Reference 2001 chart indicating equivalent paint systems for other manufacturers.
- C. General-Purpose Filler: Spackling compound, gypsum board joint compound, or latex patching compound, all of standard manufacture.
- D. Wood Filler: Type recommended by paint manufacturer for type of wood and paint to be used.
- E. Other Materials: Types recommended by paint manufacturer for his/her particular products and conditions of use.

2.02 COLOR SELECTION

- A. Paint colors and textures shall match existing adjacent materials where so specified. Should a question arise as to quality of match, the Architect's decision shall be final.
- B. Colors: Custom colors as selected by the Architect
- C. Paint shall be already color-mixed when delivered to the Project site; no color-mixing shall be permitted at the Project site.
- D. Primers shall be color tinted to match color of finish.
- E. After the actual painting and finishing has started, the Architect retains the right to make minor modifications in tone and shade on various surfaces to suit the actual lighting conditions encountered. Submit additional samples, as required, to assist the Architect in his final selection.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Examine surfaces to be painted before beginning painting operations. Construction of other trades that has been left or installed in a condition not suitable to receive paint, stain or other specified finish shall be repaired or corrected by the applicable trade before painting.
- B. Start of painting work indicates acceptance of surfaces and conditions of surfaces and conditions within any particular area.

3.02 PREPARATION

- A. General: Remove finish hardware, switch plates, nameplates, gauges, lighting and fixtures and similar items prior to start of painting; replace removed items only after paint has completely dried. Use only workers skilled in the trades involved for removing and connecting above items. For items not reasonable to remove and replace, protect by masking or other means.
- B. Existing Materials:
 - 1. General:
 - a. Surface preparation of existing materials shall be such that substrate shall be as smooth as that of new materials, and coatings applied thereto shall achieve appearance as satisfactory as if applied on new materials.
 - b. If examination of existing surfaces to be refinished shows that surface conditions are not suitable to receive specified first coat, apply one coat of surface conditioner recommended by coating manufacturer for the substrate and conditions involved; or, if determined by coating manufacturer, prepare as specified hereinafter.
 - c. Clean mildew with water spray containing bleach and trisodium phosphate.
 - 2. Wood Trim:
 - a. Clean surfaces of loose dirt and dust. Remove loose paint by sanding, wire brushing or scraping.
 - b. With specified wood filler, fill holes, cracks, and areas not exceeding 3/8 inch in depth where wood is missing; sand flush and smooth when filler is dry. For areas exceeding 3/8 inch in depth where wood is missing, replace with new wood, neatly cut in at a 45-degree angle and glued with non-staining, non-bleeding, waterproof glue; sand flush and smooth when glue is dry.

3. Cement Plaster Repair:

- a. Prepare by removing efflorescence, chalk, dirt, grease, oils, and by roughening as required to remove glaze.
 - 1) Determine alkalinity and moisture content of surfaces to be painted.
 - 2) If surfaces are found to be sufficiently alkaline to cause blistering and burning of finish paint, neutralize before application of paint.
 - 3) Do not paint over surfaces where moisture content exceeds manufacturer's printed directions.
- b. Cracks More Than ¼-inch Wide: Groove top of cracks, and cut out to sound material or to backing paper, ensuring that backing paper is not damaged. Remove dust, dirt, loose particles, and foreign materials by brushing or other means that will not damage material.
- c. Dampen cleaned concrete surfaces and apply flexible patching compound manufactured by V.I.P., or equal.
- d. Cracks ¼-inch Wide or Less: Apply flexible patching compound.
- e. Apply flexible patching compound in accordance with the manufacturer's printed instructions and finish to match adjacent concrete.
- f. Follow manufacturer's printed instructions for curing patching compound.

4. Concrete: Areas where ceramic tile is indicated for removal.

- a. Mechanically remove all mortar or tile grout prior to bead blasting.
- b. Protect all surfaces not indicated for bead blasting.
- c. Test Area: Bead blast a 10 foot by 10 foot area for review by the Architect prior to commencing blasting work. Test different shot material to determine best shot type and technique to achieve intended results.
- e. Bead blast concrete surface to achieve a uniform texture. Blast the least amount possible to achieve a uniform surface texture. Do not over blast. Avoid gouging the concrete.

5. Tile: Areas where existing ceramic tile is indicated to remain and receive paint finish.

- a. Tile surfaces shall be cured, firm, dry and cleaned free of dust, dirt, oil, grease, wax, chalky or loose pain, rust, loose mill scale, bond breakers and curing compounds, efflorescence, asphalt stains, mildew or other contamination or condition that would adversely affect the performance of the of the coating.

b. Sand tile surfaces.

c. Fill holes and voids with patching compound as recommended by coating manufacturer. Match surface profiles.

C. New Materials:

1. General: Surfaces shall be clean and dry before painting and finishing. Remove dirt and dust by stiff bristle brush and wipe with cloths. Remove oil and grease by cleaning using a materials and methods recommended by the paint manufacturer. Thoroughly rinse surfaces with water that have been contaminated with chemicals. Apply the first coat of paint as soon as possible after cleaning and drying the surfaces.
2. Metal: Remove mill scale, rust, and other foreign material by wire brushing, scraping, sandblasting, or chemical means; remove oil, grease, dirt, and dust by use of mineral spirits. Pretreat galvanized metal with phosphoric acid or vinyl wash; apply primer the same day as surface is prepared.
3. Galvanized handrails to receive high performance coating: Steam clean surfaces, then roughen by abrasive blasting, using an abrasive not larger than 30 mesh. Take care not to damage galvanizing. Etch with etching product approved by paint or coating manufacturer.
4. Gypsum Plaster: Fill narrow, shallow cracks, and small holes and depressions with general-purpose filler; rake deep, wide cracks and deep holes, then fill with thin applications of general-purpose filler. Allow filler to dry, then sand flush and smooth, taking care not to remove or raise nap of paper facing.
5. Cement Plaster: Fill narrow, shallow cracks, and small holes and depressions with general-purpose filler; rake deep, wide cracks and deep holes, then fill with thin applications of general-purpose filler. Allow filler to dry, then sand flush and smooth, taking care not to remove or raise nap of facing.
6. Concrete: Thoroughly clean form oil and other deposits from form surfaces and remove laitance and powder. Do not start painting operations until surfaces are clean and sound and thoroughly cured and dried.
7. Wood: Clean soiled surfaces, then sand smooth. Fill cracks, holes, and depressions with specified wood filler; sand flush and smooth when filler is dry.

3.03 APPLICATION

- A. Application: Apply paints by brush or roller except as otherwise specified. Use paint of proper consistency for each coat, well brushed out or flowed on to obtain a uniform finish free from holidays, brush marks, sags, crawls or other defects.

- B. Apply materials in accordance with the manufacturer's printed instructions and as specified. Accomplish thinning required in the manner and with the type of reducer recommended by manufacturer.
- C. Add mildew retardant to exterior paint in accordance with directions of SFUSD Buildings and Grounds.
- D. Coats and Textures:
 - 1. The number of coats specified is the minimum number required; if complete and even coverage is not achieved with the number of coats specified, as determined by the Architect, apply additional coats until the required finish has been achieved; materials and application of such additional coats shall be at no increase in Contract Price.
 - 2. Color tint sealers and undercoats to correspond with finish color. Vary color of successive coats sufficiently to distinguish between coats. Tint undercoats to colors selected by the Architect, increasing the depth of shade in successive coats.
 - 3. Allow each coat to completely dry before application of each succeeding coat, following manufacturer's recommendations for drying time between coats.
 - 4. Sand between each coat to remove defects visible from a distance of five feet.
 - 5. Smooth or textured finish is indicated on the Drawings.
- E. Sand enamel and varnish coats smooth before recoating. Repair defects and unevenness in previously applied coatings before applying the next coat.
- F. Shop paint all new handrails with high performance coating. Touch-up only in field. Use materials compatible with those used in shop for touch-up.
- G. Touch-up and restore damaged shop-applied primer. Refinish the entire surface if touch-up or a portion of a finish is not acceptable.
- H. Paint and finish surfaces indicated in the Room Finish Schedule and as specified herein, including exterior and interior surfaces at areas of new or modified existing work.
- I. Millwork: Prime or back-paint (other than shop painted or prefinished surfaces) within 24 hours after delivery to Project site. Apply 2 coats paint (primer and filler of undercoat) on top and bottom edges of doors after being cut and fit but preferably before being hung. Prime or seal edges and cut surfaces of boarding and paneling.
- J. Wood exterior finish, including frames, trim, siding and natural-finished wood: Back-prime surfaces which will be concealed after installation. Use Kelly Moore clear prime seal and apply immediately upon delivery of material to project.

- K. Sheet metal: Back-prime raw sheet metal before installation.
- L. Cement plaster: apply primer and finish coats after new plaster has cured and after existing plaster has been repaired and prepared for painting
- M. Existing Tile: after preparation, apply primer-sealer to tile surfaces in accordance with manufacturer's written instructions. Allow to fully cure and dry. Apply finish coats as scheduled.

3.04 CLEANUP

- A. Clean-Up: During progress of work, remove discarded paint materials, rubbish, cans, rags from site at end of each work day.
 - 1. Clean glass and paint-spattered surfaces immediately by proper methods of washing and scraping, using care not to scratch or damage finished surfaces.
- B. Protection: Protect work of other trades, whether to be painted or not; correct damage by cleaning, repairing or replacing, and repainting, as acceptable to Architect.
 - 1. Provide "Wet Paint" signs to protect newly-painted finishes.
 - 2. Remove temporary protective wrappings provided by others for protection of their work, after completion of painting operations.
- C. Repair: At completion of work of other trades, touch-up and restore damaged surfaces or defaced painted surfaces.

3.05 COMPLETION

- A. When complete, surfaces to which paint has been applied shall be clean and evenly covered, uniform in appearance, smooth, and free from brush marks, holidays, skips, runs, bubbles, streaks, and other damage and defects including inadequate coverage and mill thickness as necessary to produce a first-class workmanlike job.
- B. Edges of applied finishes adjoining other materials and colors shall be clean and sharp, with no overlapping.
- C. At the end of one year, paint colors shall be free from noticeable fading, and finishes shall have their original adherence, with-out evidence of blisters, runs, peeling, scaling, chalking, streaks, and stains. Washing with alkali-free soap and water shall remove surface dirt from finished surfaces without damaging finish.

3.06 PAINT SCHEDULE

A. Exterior Surfaces – New:

1. Galvanized Metals – Eggshell:

1 coat Galvanized Metal Primer
KM 5725 DTM Acrylic Primer Finish

2 coats KM 5885 DTM High Performance Acrylic Semi-Gloss

2. Galvanized Steel Handrails– High Performance High Gloss: Touch up damaged factory primed surfaces.

1 coat Organic Zinc Primer
Tnemec 90-96 Tnemec Zinc
Rustoleum PC. ; # 9100 series Epoxy mastic – As Specified
Distributed by
Kelly Moore

2 coats Polyurethane Enamel – High Gloss
Rustoleum 9700 series Aliphatic Polyurethane

*Omit primer on surfaces shop primed with organic zinc primer.

3. Iron and Steel –Semi-Gloss: (All other iron and steel surfaces exposed to sight and/or weather). Touch up damaged factory primed surfaces.

1 coat Ferrous Metal Primer*
Rustoleum 9334 Zinc-Sele
Tnemec 90-96 Tnemec –Zinc
Rustoleum 9100 series Epoxy Mastic

2 coats Industrial enamel– Semi-Gloss
KM 6630 Plasti- Enamel Semi-Gloss Enamel

*Omit first coat on shop primed surfaces.

4. Wood – Painted Eggshell:

1 coat Wood Primer – Exterior
KM 255 Acry- Shield 100% Acrylic Primer

2 coats Wood Trim Enamel – Eggshell
KM 1686 Dura – Epoxy + 100% Acrylic Eggshell Enamel

5. Concrete – Painted Low Sheen:

- 1 coat Concrete and Plaster Primer – Exterior
KM 247 Acry- Shield 100% Acrylic Masonry Primer
- 2 coats Acrylic Finish Coat – Flat – Exterior
KM 1240 Acry-Shield 100% Acrylic Exterior Low Sheen

*This includes existing concrete surfaces that have been sand blasted.

6. Cement Plaster – Painted Low Sheen:

- 1 coat Concrete and Plaster Primer – Exterior
KM 247 Acry- Shield 100% Acrylic Masonry Primer
- 2 coats Acrylic Finish Coat – Flat – Exterior
KM 1240 Acry-Shield 100% Acrylic Exterior Low Sheen

B. Exterior Surfaces – Existing:

1. Galvanized Metals – Eggshell:

- 1 coat Galvanized Metal Primer
KM 1725 100% Acrylic Metal Primer
- 2 coats KM 1686 Dura -Poxy + 100% Acrylic Eggshell Enamel

2. Galvanized Steel Handrails – High Performance High Gloss:

- 1 coat Organic Zinc Primer
Tnemec 90-96 – Distributed by Kelly Moore
Rustoleum 9100 series Epoxy Mastic - Distributed by Kelly Moore
- 2 coats Polyurethane Enamel – High Gloss
Rustoleum 9700 Series Aliphatic Polyurethane

3. Iron and Steel – Semi-Gloss: (All other iron and steel surfaces exposed to light and/or weather).

- 1 coat 1 coat Organic Zinc Primer
1711 Kel – Guard Alkyd Rust – Preventative Primer
Tnemec 90-96 – Distributed by Kelly Moore
- 1 coat Industrial Enamel Finish Semi-Gloss
6630 Plasti-Namel Alkyd Rust Preventative Semi-Gloss Enamel

4. Wood – Painted Eggshell:

1 coat Wood Primer – Exterior
KM 255 Acry- Shield 100% Acrylic Primer

2 coats Wood Trim Enamel – Eggshell
KM 1686 Dura – Epoxy + 100% Acrylic Eggshell Enamel

5. Concrete – Painted Low Sheen (includes retaining walls):

1 coat Concrete and Plaster Primer-Exterior
247 Acry-Shield 100% Acrylic Masonry Primer

1 coat KM 1240 Acry-Shield 100% Acrylic Exterior Low Sheen

6. Cement Plaster – Painted Low Sheen:

1 coat Concrete and Plaster Primer-Exterior
247 Acry-Shield 100% Acrylic Masonry Primer

1 coat KM 1240 Acry-Shield 100% Acrylic Exterior Low Sheen

7. Stair Nosing Stripes – Low Profile Epoxy:

1 coat Amstep, "Hercugrip 7175" low profile epoxy anti-slip coating.

C. Interior Surfaces - New:

1. Steel Doors and Frames – Non-Blocking Acrylic Latex:

Touch up damaged factory primed surfaces. Omit 1st coat on shop primed surfaces.

1 coat Ferrous Metal Primer
KM 1710 Kel Guard Red Oxide Primer

1 coat Acrylic Enamel Undercoat – Interior
KM 975 Enamel Undercoater

1 coat Acrylic Enamel-Non Blocking – Interior
KM 1686 Dura – Epoxy + 100% Acrylic Latex Enamel
Gloss sheen at corridors and stairs, eggshell sheen elsewhere.

2. Metals – Acrylic Latex Enamel: (All other metals including exposed piping, conduit, electrical panels, miscellaneous brackets, bolts, fasteners, supports, prime coated hardware, casing beads, metal grilles and exposed ducts etc., other than plated or factory finished items). Touch up damaged factory primed surfaces. Omit 1st coat on shop primed surfaces.

1 coat Ferrous Metal Primer
KM 1710 Kel Guard Red Oxide Primer

1 coat Acrylic Enamel Undercoat – Interior
KM 975 Enamel Undercoater

1 coat Acrylic Latex Enamel – Eggshell – Interior
KM 1686 Dura – Epoxy + 100% Acrylic Eggshell Enamel

Note: Provide alkyd semi-gloss enamel; Benjamin Moore Super Spec DTM Z24 or approved equal at metal handrails.

3. Gypsum Board – Acrylic Latex Enamel:

1 coat Vinyl Acrylic Sealer
KM 971 Acry-Plex

1 coat KM 1610 Acry-Plex 100% Acrylic Enamel
Gloss sheen at toilet rooms; semi-gloss sheen walls of corridors and stairs; flat sheen at ceilings of corridors and stairs; low sheen elsewhere.

4. Acoustic Tile Ceiling (Lay-in and surface applied) – Acrylic Latex Enamel:

1 coat Interior Latex Flat Paint
485 KM Commercial

1 coat Interior Latex Flat Paint
485 KM Commercial

Only paint new acoustic tile where used in rooms to patch existing acoustic tile ceilings. At these instances both new and existing tile in entire room is to be painted.

5. Masonry – Acrylic Latex Enamel Low Sheen:

1 coat Masonry Block Filler
KM 521 Fill Prime Acrylic Block Filler

1 coat Acrylic Enamel Undercoat – Interior
KM 975 Enamel Undercoater

1 coat Acrylic Latex Enamel – Low Sheen – Interior
KM 1610 Acry-Plex 100% Acrylic Eggshell Enamel

6. Concrete – Painted Low Sheen:

- 1 coat Concrete and Plaster Primer-Interior
247 Acry-Shield 100% Acrylic Masonry Primer
- 1 coat Acrylic Finish Coat-Flat-Interior
550 Acry-Plex Interior Acrylic Low Sheen Wall Paint

7. Hardwood Trim and Veneered Doors – Clear Stained

- 1 coat Sanding Sealer – Interior
KM 4683 550 VOC Ultra Solids Clear Sanding Sealer
- 2 coats KM 4684 550 VOC ULTRA SOLIDS Clear Semi-Gloss

8. Hardwood Trim and Veneered Doors – Painted:

- 1 coat Acrylic Enamel Undercoat
KM 975 Enamel Undercoater
- 1 coat Acrylic Latex Enamel
KM 1610 Acry-Plex 100% Acrylic Enamel
High gloss sheen at toilet rooms; semi-gloss sheen at trim of corridors
and stairs; gloss sheen at doors; semi-gloss sheen elsewhere.

9. Architectural Woodwork and Finish Carpentry -- Painted:

Pretreatment: Fill open-grained wood with filler and wipe before painting.
For finishes at wood flooring, see Section 09610 Wood Flooring Treatment.

- 1 coat Acrylic Enamel Undercoat
KM 975 Enamel Undercoater
- 2 coats Acrylic Latex Enamel
KM 1610 Acry-Plex 100% Acrylic Enamel – low sheen

10. Concrete Floors.- High Performance Epoxy:

- 1 coat Rustoleum 9100 series Epoxy Anti-Slip Floor Coating
- 2 coats Rustoleum 9100 series Epoxy Anti-Slip Floor Coating

11. Plaster – Acrylic Latex Enamel:

1 coat Vinyl Acrylic Sealer
KM 971 Acry- Plex

1 coat KM 1686 Dura – Epoxy + 100% Acrylic Enamel
Gloss sheen at toilet rooms; semi-gloss sheen at walls of corridors and stairs; flat sheen at ceilings of corridors, stairs, classrooms and offices; low sheen elsewhere.

12. Miscellaneous: Construction visible through screen vents and grilles shall have one heavy coat of flat black paint.

1 coat KM 1240-407 Carbon Black Acry-Shield 100% Acrylic Exterior Flat

D. Interior Surfaces - Existing:

1. Steel Doors and Frames – Non-Blocking Acrylic Latex:

1 coat Tenemec Alkyd Metal Primer

1 coat Acrylic Enamel-Non Blocking – Interior
Tenemec – Epoxy + 100% Acrylic Enamel
Gloss sheen at corridors and stairs; eggshell sheen elsewhere.

2. Metals – Acrylic Latex Enamel: (All other metals including exposed piping, conduit, electrical panels, miscellaneous brackets, bolts fasteners, supports, prime coated hardware, casing beads, metal grilles and exposed ducts, etc., other than plated or factory finished items).

1 coat KM 1725 Acry-Shield 100% Acrylic Metal Primer

1 coat Acrylic Latex Enamel – Eggshell - Interior
KM 1686 Dura – Epoxy + 100% Acrylic Eggshell Enamel

Note: Provide alkyd semi-gloss enamel; Benjamin Moore Super Spec DTM Z24 or approved equal at metal handrails.

3. Gypsum Board – Acrylic Latex Enamel:

2 coats Acrylic Latex Enamel – Interior
KM 1610 Acry-Plex 100% Acrylic Enamel
Gloss sheen at toilet rooms; semi-gloss sheen walls of corridors and stairs; flat sheen at ceilings of corridors and stairs; low sheen elsewhere.

4. Acoustic Tile Ceiling (Lay-in and surface applied) – Acrylic Latex Enamel:

1 coat Interior Latex Flat Paint
485 KM Commercial

1 coat Interior Latex Flat Paint
485 KM Commercial

5. Plaster – Acrylic Latex Enamel:

1 coat Vinyl Acrylic Sealer
KM 971 Acry-Plex

1 coat KM 1686 Dura – Epoxy + 100% Acrylic Enamel
Gloss sheen at toilet rooms; semi-gloss sheen at walls of corridors and stairs; flat sheen at ceilings of corridors, stairs, classrooms and offices; low sheen elsewhere.

6. Hardwood Trim and Veneered Doors – Stained:

1 coat Wood Stain – Interior
KM 2900 series Q.D. Alkyd Stain

1 coat Sanding Sealer – Interior
KM 4683 550 VOC Ultra Solids Clear Sanding Sealer

2 coats Semi-Gloss Lacquer – Interior
KM 4684 550 VOC ULTRA SOLIDS Clear Semi-Gloss

7. Existing Cabinetry to be Painted:

1 coat Acrylic Enamel Undercoat
KM 975 Enamel Undercoater

2 coats Acrylic Latex Enamel
KM 1610 Acry-Plex 100% Acrylic Enamel – low sheen

8. Existing Benches – Stained:

1 coat Wood Stain – Interior
KM 2900 series Q.D. Alkyd Stain

1 coat Sanding Sealer – Interior
KM 4683 550 VOC Ultra Solids Clear Sanding Sealer

2 coats Semi-Gloss Lacquer – Interior
KM 4684 550 VOC ULTRA SOLIDS Clear Semi-Gloss

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9. Hardwood Trim and Veneered Doors – Painted:

1 coat Acrylic Enamel Undercoat
KM 975 Enamel Undercoater

1 coat Acrylic Latex Enamel
KM 1610 Acry-Plex 100% Acrylic Enamel
High gloss sheen at toilet rooms; semi-gloss sheen at trim of corridors
and stairs; gloss sheen at doors; semi-gloss sheen elsewhere.

10. Ceiling Tile, Tack Panel, etc. – Acrylic Latex Enamel:

1 coat Acrylic Latex Undercoat – Interior
KM 975 Enamel Undercoater

1 coat Acrylic Latex Enamel – Interior
KM 1610 Acry-Shield 100% Acrylic Latex
Flat sheen at ceiling tiles of classrooms and offices; low sheen
elsewhere.

13. Concrete – Painted Low Sheen:

1 coat Concrete and Plaster Primer – Interior
247 Acry-Shield 100% Acrylic Masonry Primer

1 coat Acrylic Finish Coat-Low Sheen-Interior
550 Acry-Plex Interior Acrylic Low Sheen Wall Paint

12. Basketball Backboards at GYM – Painted Flat:

1 coat DE-EZ-PRIME

2 coats Acrylic Finish Coat – Flat – Interior
Dunn-Edwards Corp.; W701VV Evershield 100% Acrylic Flat Finish

13. Stair Nosing Stripes – Low Profile Epoxy:

1 coat Amstep, "Hercugrip 7175" low profile epoxy anti-slip coating.

3.07 MISCELLANEOUS PAINTING AND STAINING

- A. Repair paint and stain finishes on surfaces damaged by the performance of the Work with paint or stain of same type and color. If satisfactory repair cannot be made, repaint or restain entire surface; the Architect's decision as to quality of repair shall be final.
- B. Exposed New Mechanical and Electrical Items: Finish to match adjacent finished surfaces.

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- C. Existing Painted and Stained Surfaces: Apply compatible primer or reconditioner, as required by the conditions of the surfaces to be refinished; apply a minimum of one finish coat, extending finish to inside/outside corner to inside/outside corner, or to full vertical height of wall or adjacent trim, unless otherwise permitted by Architect.
- D. Factory-Finished Items Specified in the Individual Sections to be Painted or Stained: Apply a minimum of two coats of finish compatible with factory-applied finish.
- E. When patching is performed at existing surfaces the entire surface or wall from end to end is to be painted.

3.08 PAINTS AND COATINGS PRODUCT MATRIX

- A. Kelly Moore Paints California Cross Reference 2001 chart indicating equivalent paint systems for other manufacturers. All products listed are examined and taken from the information listed from the manufacturers web site. Master Painter's Institute (MPI) approved categories are used for reference and not all products listed have been approved by MPI.
- B. See Appendix A on the following pages for Kelly Moore Paints California Cross Reference 2001 chart.

END OF DOCUMENT

APPENDIX A Kelly Moore Paints California Cross Reference 2011

EXTERIOR		Product Description	MPI Category	Kelly Moore	Benjamin Moore	Dunn Edwards	Glidden	Sherwin Williams
Substrate Primers								
Masonry & Cementitious	Acrylic Clear Primer/Sealer	3	98	M27-00	—	3030	A24W8300	
Masonry & Cementitious	Acrylic Primer	3	247	068	ESPR00	3030	A24W8300	
Masonry & Cementitious	Waterborne Surface Conditioner	—	239	—	W718	—	A24W100	
Masonry & Cementitious	Alkyd Surface Conditioner	—	240	100	42-52	—	—	
Masonry & Cementitious	Acrylic Block Filler	4	521	285	SBPR00	3010	B25W25	
Ferrous Metal	Alkyd Primer - White	79	1711	P06/KP06	BRPR00	—	B50WZ1	
Ferrous Metal	Alkyd Primer - Red	79	1710	P06/KP06	BRPR00	—	B50NZ6	
Ferrous Metal	Acrylic DTM Primer	107	5725	P25/KP25	BRPR00-1	4020	B66W00310	
Ferrous Metal	Acrylic Primer	107	1725	P04/KP04	BRPR00-1	4020	B66W00310	
Non-Ferrous Metal	Acrylic DTM Primer	134	5725	P04/KP04	UGPR00	4020	B66W1	
Non-Ferrous Metal	Acrylic Primer	134	1725	P04/KP04	UGPR00	4020	B66W1	
Wood	Alkyd Stain Resistant Primer	5	220	024/K024	—	2110	Y24W8020	
Wood	Acrylic Stain Resistant Primer	6	255	023/N023	EZPR00	3210	B51W8020	
Wood	Acrylic Primer	6	250	169	EZPR00	3210	B42W8041	
All Surfaces	Bonding Primer	17	202600	23	UGPR00	3210	B51W8050	
EXTERIOR		Product Description	MPI Category	Kelly Moore	Benjamin Moore	Dunn Edwards	Glidden	Sherwin Williams
Finishes								
Acrylic Coating	Flat - Premium	10	1240	N105	SSH110	6201	B2Wf08	
Acrylic Coating	Flat - Professional	10	1200	183	W720	2200	A6W16	
Acrylic Coating	Flat - High Build	40	1155	NA	—	2221-1200	A24W00451	
Acrylic Latex	Recycled - Flat	10 RR	860	—	Recover	—	—	
Acrylic Coating	Low Sheen - Premium	214	1245	N103	W705	2402	A89W51	
Acrylic Coating	Low Sheen - Professional	214	1210	N185	W7300	□	A82W51	
Acrylic Latex	Eggshell - Recycled	—	865	—	Recover	—	—	
Acrylic Coating	Semi-Gloss - Premium	11	1250	543/K543	EVSH50-0	6407	A08W00151	
Acrylic Coating	Semi-Gloss - Professional	11	1215	632/K632	W7500	2406	A08W00151	
Acrylic Latex	Semi-Gloss - Recycled	15 RR	870	—	Recover	—	—	
Acrylic Coating	Gloss - Premium	119	1680	—	EVSH60	4208	A85W51	
Acrylic Coating	Gloss - Professional	119	1260	—	W7600	—	—	
Acrylic Coating	Semi-Transparent Stain	156	1285	—	WPT3	2610	A15T705	
Acrylic Coating	Texture Coating	42	1112	—	W322	3230	A44W800	

Acrylic Coating	Elastomeric, Smooth	113	1118	056/KO56	W321	2260	A05WOO451
Acrylic Coating	Elastomeric, Smooth	113	1128	056	W370	2260	A05WOO451
Acrylic Coating	Elastomeric, Textured	42	1129	060	W323	3230	A5-800
EXTERIOR		MPI	Kelly	Benjamin	Dunn		Sherwin
Finishes, cont.		Category	Moore	Moore	Edwards	Glidden	Williams
Acrylic Coating	DTM, Semi-Gloss	163	5885	P29/KP29	EVSH50	4216	B66W351
Acrylic Coating	DTM, Gloss	164	5880	M28	EVSH60	659	B66W311
Masonry & Cementitious	Clear Water Repellant	34	77-002	—	W1	—	SX-7
Alkyd Rust Preventative	Satin	—	6620	227	—	—	—
Alkyd Rust Preventative	Semi-Gloss	94	6630	Z24	9V	4306	B55W00101
Alkyd Rust Preventative	Gloss	96	1700	—	10V	4348	B55W00811
EXTERIOR		MPI	Kelly	Benjamin	Dunn		Sherwin
Floor & Deck Coatings		Category	Moore	Moore	Edwards	Glidden	Williams
Concrete & Wood	Acrylic Floor Paint, Eggshell	60	1786	122	W810	3018	B90W111
Concrete & Wood	Acrylic Floor Paint, Gloss	68	1789	—	—	—	—
Concrete & Wood	Acrylic Anti-Slip Floor Coating	—	5300	M55	2600 Rustoleum	3011	—
Concrete, Asphalt	Acrylic Marking Paint	97	1450	P58/KP58	W801	4800	TM227/226
INTERIOR		MPI	Kelly	Benjamin	Dunn		Sherwin
Substrate Primers		Category	Moore	Moore	Edwards	Glidden	Williams
Masonry & Cementitious	Acrylic Primer	50	971	W624/K624	W6232V	1030-1200	B28W08100
Masonry & Cementitious	Acrylic Block Filler	4	521	285	SBPR00	3010	B25W25
Plaster	PVA Sealer - Premium	50	971 or 972	N216	ESPR00	1030-112	B28W08100
Plaster	PVA Sealer - Low VOC	149	971 or 973	372/N372	W600	LM9116	B11W00900
Plaster	PVA Sealer - Professional	50	966	PF05	VNPR00	1030-1200	B28VWB1
Gypsum Wallboard	PVA Sealer - Premium	50	971 or 972	W624/K624	ESPR00	1000-1200	B28W101
Gypsum Wallboard	PVA Sealer - Low VOC	149	971 or 973	372/N372	W600	1030-112	B28W08100
Gypsum Wallboard	PVA Sealer - Professional	50	966	PF05	VNPR00	1030-1200	B28VWB1
Gypsum Wallboard	Latex Base Coat	50	95-25	—	W420	1000-1200	B28W08100
Ferrous Metal	Alkyd Primer - White	79	1711	PO6/KP06	BRPR00	4160	B50WZ1
Ferrous Metal	Alkyd Primer - Red	79	1710	PO6/KP06	43-4	4160	—
Ferrous Metal	Acrylic Primer	107	1725	P04/KP04	BRPR00	4020PF	B66W00310
Ferrous Metal	Acrylic DTM Primer	107	5725	P25/KP25	BRPR00	4020PF	B66W00310
Non-Ferrous Metal	Acrylic Primer	134	1725	PO4/KPO4	UGPR00	4020PF	B66W310
Non-Ferrous Metal	Acrylic DTM Primer	134	5725	P25/KP25	UGPR00	4020PF	B66W1
Wood	Latex Enamel Undercoat	46	975 or 973	253	W707	1110	B79W08810
All Surfaces	Acrylic Stain Blocking Primer	39	295	023	UGPR00	3210	B51W20

INTERIOR Finishes	MPI Category	Kelly Moore	Benjamin Moore	Dunn Edwards	Glidden	Sherwin Williams
Acrylic Coating	—	655	N215	W401	1200N	A96W01251
Acrylic Coating	53	550	W625/K625	SPMA10	7100	A96W01251
Acrylic Coating	143	1500	N373	W601	9100	B05W00951
Acrylic Coating	143	2000	512	ENS010	9100	B05W00951
Acrylic Coating	53	485&1005	PF06	SWLL10	7100	A96W01251
INTERIOR Finishes, cont.	MPI Category	Kelly Moore	Benjamin Moore	Dunn Edwards	Glidden	Sherwin Williams
Acrylic Coating	—	119	258	W615	1221	B30W400
Acrylic Latex	53 RR	840	—	Recover	—	—
Acrylic Coating	44	1007	C286	SWLL20	1410	B20WQ8851
Acrylic Coating	139	1686	—	—	—	D17WQ8851
Acrylic Coating	52	1610	319	SPMA30	7300	B20W8521
Acrylic Coating	145	1510	374	ENSO30	LM9300	B20W02651
Acrylic Coating	145	2010	—	—	—	—
Acrylic Coating	52	1010	K375	SPMA30	1403	B20W02561
Acrylic Latex	44 RR	845	—	Recover	—	—
Acrylic Coating	—	1640	314	W440	—	—
Acrylic Coating	—	1040	—	W7400	—	B31W2200
Acrylic Coating	141	1685	528	EVSH50	1407	D18WQ8851
Acrylic Coating	54	1650	N333	W901	7400	B21W451
Acrylic Coating	147	1520	514	W603	9200	A41WQ8051
Acrylic Coating	147	2020	—	ENSO50	1415	B10W00951
Acrylic Coating	54	1050	376	SSH50	1416	B21W00251
Acrylic Latex	—	850	—	Recover	—	—
Acrylic Coating	114	1680	309	EVSH60	4208	B66W00501
Acrylic Coating	114	1659	—	W6220V	3038	B21W00051
Acrylic Coating	153	5885	P29/KP29	EVSH50	4216L	B66W00211
Acrylic Coating	154	5880	P28/KP28	EVSH60	4216L	B66W311
Alkyd Rust Preventative	—	6620	227	—	1502	—
Alkyd Rust Preventative	47	6630	C207	9V	1507	B34W251
Alkyd Rust Preventative	48	1700	C133/K133	10V	3118	B35W00251
Waterborne Coating	118	480	153/K153	W6079	1280	B75WB1
Waterborne Coating	155	481	M53S	W6078	1486	—
INTERIOR Finishes	MPI Category	Kelly Moore	Benjamin Moore	Dunn Edwards	Glidden	Sherwin Williams

Wood Care	Category	Moore	Moore	Edwards	Glidden	Williams
Wood - Stain	90	1281 or 2900	234	V109	1700	A49V200
Wood - Stain	—	2800	—	—	—	—
Wood - Clear	128	2097	423	MC80-6841	1802	3333
Wood - Clear	129	2094	—	MC80-6842	—	4444
Wood - Clear	130	2096	422	MC80-6843	1808	5555
Wood - Clear Lacquer	—	4883	—	VNUS 3300	—	—
Wood - Clear Lacquer	—	4885	—	V-NUW 3122	—	—
Wood - Clear Lacquer	—	4887	—	V-NUW 3124	—	—
Wood - Clear Lacquer	—	4884	—	V-NUW 3126	—	—
Wood - Clear Lacquer	—	4886	—	V-NUW 3129	—	—
Wood - Clear Lacquer	—	4783	—	V-NAF 1420	—	—
INTERIOR						
Wood Care, cont.		MPI	Kelly	Benjamin	Dunn	Sherwin
Wood - Clear Lacquer	—	4785	—	Edwards	Glidden	Williams
Wood - Clear Lacquer	—	4787	—	V-NAF 1421	—	—
Wood - Clear Lacquer	—	4784	—	V-NAF 1422	—	—
Wood - Clear Lacquer	—	4786	—	V-NAF 1424	—	—
Wood - Clear Lacquer	84	4683	—	V-NAF 1426	—	—
Wood - Clear Lacquer	87	4685	—	V-NRF 1620	GM-252	—
Wood - Clear Lacquer	85	4687	—	V-NRF 1622	1300	T70F23
Wood - Clear Lacquer	—	4684	—	V-NRF 1624	1309	T70F22
Wood - Clear Lacquer	86	4686	—	V-NRF 1626	—	—
Wood - Pig. Lacquer	24	4910	—	V-NRF 1629	1308	T70C20
Wood - Pig. Lacquer	24	4920	—	V-NUW 3120	U8070	P61W1
Wood - Pig. Lacquer	—	4773	—	V-NUS 3300	U8070	P61W1
Wood - Pig. Lacquer	—	4877	—	V-NUW 3120	—	—
Wood - Pig. Lacquer	—	4874	—	V-NUW 3122	—	—
Wood - Pig. Lacquer	—	4876	—	V-NUW 3124	—	—
Wood - Pig. Lacquer	—	4876	—	V-NUW 3126	—	—
Wood - Pig. Lacquer	123	4901	—	—	P9103-19	M60B8
Wood - Pig. Lacquer	124	4902	—	—	P9104-18	L61W34
Wood - Pig. Lacquer	123	4921	—	V-NAW 1326	P9103-19	M60B8
Wood - Pig. Lacquer	124	4922	—	V-NAW 1329	P9104-18	L61W34
INTERIOR						
Floor & Deck Coatings		MPI	Kelly	Benjamin	Dunn	Sherwin
Concrete & Wood	60	1786	122	Edwards	Glidden	Williams
				W810	3018N	B90W111

Concrete & Wood	Waterborne Floor Paint, Gloss	68	1789	—	IP630	—	—
Concrete & Wood	Waterborne Anti-Slip Floor Coating	—	5300	M55	2600 Rustoleum	3011	—
Concrete & Wood	Water Reducible Epoxy, Clear	—	7100-001	M43-00	—	—	—
Concrete & Wood	Water Reducible Epoxy	115	7100	M42	1735	4428/4420	B70W00200
INTERIOR & EXTERIOR							
Industrial Coatings							
Waterborne Coating	Water Reducible Epoxy, Gloss	115	7100	M42	1735	4428/4420	B70W00200
Steel	Water Reducible Epoxy Primer	301	7125	M42-70	1270	DC203	B73A200
Steel	Epoxy, Gloss	98, 101	KM-15	M45	990IHS	724	B67-200
Steel	Low Temp Epoxy, Semi-Gloss	—	KM-636	—	670IHS	—	—
Steel	Moisture Cured Urethane, Aluminum	201	KM-100	—	50 INTL	—	—
Steel	Polyurethane, Gloss Enamel	72	KM-375	DM74	990IHS	379	B65W00651
Steel	Polyurethane, Gloss Enamel	72	KM-399	DM74	990IHS	379	B65W00651
Concrete	Epoxy, Gloss	98	KM-15	M45	990IHS	224HS	B67-200
Concrete	Epoxy Primer, Clear	—	KM-155	—	—	—	—
INTERIOR & EXTERIOR							
Industrial Coatings, cont.							
Concrete	Low Temp Epoxy, Semi-Gloss	—	KM-636	—	670IHS	—	—
Concrete	100% Solids Epoxy, Clear	—	KM-1702	M40	—	—	—
Concrete	Polyurethane, Gloss Enamel	72	KM-375	DM74	990IHS	379UVA	B65W00651
Concrete	Polyurethane, Gloss Enamel	72	KM-399	DM74	990IHS	379UVA	B65W00651
Concrete	100% Solids Epoxy Color Coat	—	KM-1850	M40	—	—	—

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LOUVERS AND VENTS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.02 SUMMARY

- A. This Section includes the following:
 - 1. Fixed metal wall louvers.
- B. Related Sections: The following Sections contain requirements that relate to this Section:
 - 1. Division 7 Section "Joint Sealants" for sealants installed in perimeter joints between louver frames and adjoining construction.
 - 2. Division 9 Section "Painting" for field painting louvers.

1.03 DEFINITIONS

- A. Louver Terminology: Refer to Air Movement and Control Association (AMCA) 501 for definitions of terms for metal louvers not otherwise defined in this Section or in referenced standards.

1.04 PERFORMANCE REQUIREMENTS

- A. Structural Performance: Engineer, fabricate, and install exterior metal wall louvers to withstand the effects of loads and stresses from wind and normal thermal movement without evidencing permanent deformation of louver components including blades, frames, and supports; noise or metal fatigue caused by louver blade rattle or flutter; or permanent damage to fasteners and anchors.
 - 1. Wind Load: Uniform pressure (velocity pressure) of 20 lbf per sq. ft. (960 Pa), acting inwards or outwards.
 - 2. Wind Load: Uniform pressures (velocity pressures) indicated on Drawings, acting inwards or outwards.
 - 3. Normal thermal movement is defined as that resulting from the following maximum change (range) in ambient temperature. Base design calculations on actual surface temperatures of metals due to both solar heat gain and nighttime sky heat loss.

PITTSBURG UNIFIED SCHOOL DISTRICT

Highlands Elementary School
Window Replacement In-Kind
PLUM architects

**LOUVERS AND VENTS
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- a. Temperature Change (Range): 100 deg F (56 deg C).
- B. Air-Performance, Water-Penetration, and Air-Leakage Ratings: Provide louvers complying with performance requirements indicated as demonstrated by testing manufacturer's stock units of height and width indicated. Test units according to AMCA 500.
 1. Perform testing on unpainted, cleaned, degreased units.
 2. Perform water-penetration testing on louvers without screens.
 3. Equivalent Air-Performance Ratings: Louvers having less free area than that specified or having a lower free area velocity at the static pressure loss specified may be considered for the Work provided their total air performance is equivalent to that specified. The burden of proof of equivalency is on the Contractor. For louvers to be considered equivalent, the product of their free area, for the size specified, and their free area velocity at the static pressure loss specified must be at least equal to the product of the specified free area and velocity. Also, their free area velocity at the static pressure loss specified must not result in water penetration of more than 0.01 oz. per sq. ft. (3.1 g/sq. m) of free area, and they must meet all other requirements.
- C. Airborne Sound Transmission Loss: Provide acoustical louvers complying with airborne sound transmission loss ratings indicated, as demonstrated by testing manufacturer's stock units according to ASTM E 90.

1.05 SUBMITTALS

- A. General: Submit each item in this Article according to the Conditions of the Contract and Division 1 Specification Sections.
- B. Product data for each type of product specified.
- C. Shop drawings of louver units and accessories. Include plans, elevations, sections, and details showing profiles, angles, and spacing of louver blades; unit dimensions related to wall openings and construction; free areas for each size indicated; profiles of frames at jambs, heads, and sills; and anchorage details and locations.
 1. For installed products indicated to comply with certain design loadings, include structural analysis data sealed and signed by the qualified professional engineer who was responsible for their preparation.
- D. Wiring diagrams detailing power, signal, and control systems, clearly differentiating between manufacturer-installed wiring and field-installed wiring.
- E. Samples for initial selection in the form of manufacturer's color charts showing the full range of colors available for units with factory-applied color finishes.

- F. Samples for verification of each type of metal finish required, prepared on samples of same thickness and material indicated for final unit of Work. Where finishes involve normal color and texture variations, include sample sets showing the full range of variations expected.
- G. Product test reports evidencing compliance of units with performance requirements indicated.
- H. Product certificates signed by louver manufacturers certifying that their products comply with the specified requirements and are licensed to bear the AMCA seal based on tests made according to AMCA 500 and complying with the AMCA Certified Ratings Program.
- I. Qualification data for firms and persons specified in the "Quality Assurance" Article to demonstrate their capabilities and experience.

1.06 QUALITY ASSURANCE

- A. Single-Source Responsibility: Obtain louvers and vents from one source and by a single manufacturer where alike in one or more respects regarding type, design, and factory-applied color finish.
- B. Welding Standards: Comply with applicable provisions of D1.2 "Structural Welding Code--Aluminum," and D1.3 "Structural Welding Code--Sheet Steel."
 - 1. Certify that each welder has satisfactorily passed AWS qualification tests for welding processes involved and, if pertinent, has undergone recertification.
- C. Engineer Qualifications: A professional engineer legally authorized to practice in the jurisdiction where the Project is located and experienced in providing engineering services of the kind indicated that have resulted in the installation of louvers similar to this Project in material, design, and extent and that have a record of successful in-service performance.
- D. SMACNA Standard: Comply with SMACNA "Architectural Sheet Metal Manual" recommendations for fabrication, construction details, and installation procedures.
- E. UL and NEMA Compliance: Provide motors and related components for motor-operated adjustable louvers that are listed and labeled by UL and comply with applicable NEMA standards.

1.07 PROJECT CONDITIONS

- A. Field Measurements: Check actual louver openings by accurate field measurements before fabrication, and show recorded measurements on final shop drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work.

1. Where field measurements cannot be made without delaying the Work, guarantee opening dimensions and proceed with fabricating louvers without field measurements. Coordinate construction to ensure that actual opening dimensions correspond to guaranteed dimensions.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated in the Work include, but are not limited to, the following:
- B. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 1. Louvers:
 - a. Airline Products Co.
 - b. Airolite Co.
 - c. Airstream Products Div., Penn Ventilator Co., Inc.
 - d. All-Lite Louver Co.
 - e. American Warming and Ventilating, Inc.
 - f. Arrow United Industries.
 - g. Construction Specialties, Inc.
 - h. Greenheck Fan Corp.
 - i. Industrial Louvers, Inc.
 - j. Reliable Metal Products, Div. of Hart & Cooley, Inc.
 - k. Ruskin Mfg., Tomkins Industries, Inc.

2.02 MATERIALS

- A. Aluminum Extrusions: ASTM B 221 (ASTM B 221M), Alloy 6063-T5 or T-52.
- B. Aluminum Sheet: ASTM B 209 (ASTM B 209M), Alloy 3003 or 5005 with temper as required for forming, or as otherwise recommended by metal producer to produce required finish.
- C. Fasteners: Of same basic metal and alloy as fastened metal or 300 series stainless steel, unless otherwise indicated. Do not use metals that are corrosive or incompatible with joined materials.
 1. Use types and sizes to suit unit installation conditions.
 2. Use Phillips flat-head screws for exposed fasteners, unless otherwise indicated.

- D. Anchors and Inserts: Of type, size, and material required for type of loading and installation indicated. Use nonferrous metal or hot-dip galvanized anchors and inserts for exterior installations and elsewhere as required for corrosion resistance. Use toothed steel or expansion bolt devices for drilled-in-place anchors.
- E. Bituminous Paint: Cold-applied asphalt mastic complying with SSPC-Paint 12 except containing no asbestos fibers.
- F. Galvanizing Repair Paint: High-zinc-dust-content paint for regalvanizing welds in galvanized steel, with dry film containing not less than 94 percent zinc dust by weight, and complying with DOD-P-21035 or SSPC-Paint 20.

2.03 FABRICATION, GENERAL

- A. General: Fabricate louvers and vents to comply with requirements indicated for design, dimensions, materials, joinery, and performance.
- B. Assemble louvers in shop to minimize field splicing and assembly. Disassemble units as necessary for shipping and handling limitations. Clearly mark units for reassembly and coordinated installation.
- C. Maintain equal louver blade spacing, including separation between blades and frames at head and sill, to produce uniform appearance.
- D. Maintain equal louver blade spacing to produce uniform appearance.
- E. Fabricate frames, including integral sills, to fit in openings of sizes indicated, with allowances made for fabrication and installation tolerances of louvers, adjoining construction, and perimeter sealant joints.
- F. Include supports, anchorages, and accessories required for complete assembly.
- G. Provide vertical mullions of type and at spacings indicated but not more than recommended by manufacturer, or 72 inches (1830 mm) o.c., whichever is less. At horizontal joints between louver units, provide horizontal mullions except where continuous vertical assemblies are indicated.
- H. Provide sill extensions and loose sills made of same material as louvers where indicated or required for drainage to exterior and to prevent water penetrating to interior.
- I. Join frame members to one another and to fixed louver blades as follows, unless otherwise indicated or size of louver assembly makes bolted connections between frame members necessary:
 - 1. With fillet welds, concealed from view.
 - 2. With fillet welds, concealed from view; or mechanical fasteners; or a combination of these methods; as standard with louver manufacturer.

2.04 FIXED, EXTRUDED-ALUMINUM WALL LOUVERS

- A. Horizontal, Drainable, Fixed-Blade Louvers: Extruded-aluminum frames and louver blades, designed to collect and drain water to exterior at sill by means of gutters in front edges of blades and channels in jambs and mullions, complying with the following requirements:
1. Louver Depth, thickness, as indicated on the drawings
 2. Performance Requirements: As follows, determined by testing units 48 inches (1220 mm) wide by 48 inches (1220 mm) high per AMCA 500:
 - a. Free Area: Not less than 7.50 sq. ft. (0.697 sq. m).
 - b. Static Pressure Loss: Not more than 0.14 inch wg (35 Pa) at an airflow of 900 fpm (4.57 m/s) free area intake velocity.
 - c. Water Penetration: Not more than 0.01 oz. per sq. ft. (3.1 g/sq. m) of free area at an airflow of 900 fpm (4.57 m/s) free area velocity when tested for 15 minutes.
 3. AMCA Seal: Mark units with the AMCA Certified Ratings Seal.
 4. Class I, Clear Anodic Finish: AA-M12C22A41 [Mechanical Finish: nonspecular as fabricated; Chemical Finish: etched, medium matte; Anodic Coating: Architectural Class I, clear coating 0.7 mil (0.018 mm) or thicker] complying with AAMA 607.1.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Coordinate setting drawings, diagrams, templates, instructions, and directions for installation of anchorages that are to be embedded in concrete or masonry construction. Coordinate delivery of such items to Project site.

3.02 INSTALLATION

- A. Locate and place louver units plumb, level, and at indicated alignment with adjacent work.
- B. Use concealed anchorages where possible. Provide brass or lead washers fitted to screws where required to protect metal surfaces and to make a weathertight connection.
- C. Form closely fitted joints with exposed connections accurately located and secured.
- D. Provide perimeter reveals and openings of uniform width for sealants and joint fillers, as indicated.
- E. Repair finishes damaged by cutting, welding, soldering, and grinding operations required for fitting and jointing. Restore finishes so there is no evidence of

corrective work. Return items that cannot be refinished in the field to the shop, make required alterations, and refinish entire unit, or provide new units.

- F. Protect galvanized- and nonferrous-metal surfaces from corrosion or galvanic action by applying a heavy coating of bituminous paint on surfaces that will be in contact with concrete, masonry, or dissimilar metals.
- G. Install concealed gaskets, flashings, joint fillers, and insulation, as louver installation progresses, where required to make louver joints weathertight. Comply with Division 7 Section "Joint Sealants" for sealants applied during installation of louver.

3.03 ADJUSTING AND PROTECTION

- A. Protect louvers and vents from damage of any kind during construction period including use of temporary protective coverings where needed and approved by louver manufacturer. Remove protective covering at time of Substantial Completion.
- B. Restore louvers and vents damaged during installation and construction period, so that no evidence remains of correction work. If results of restoration are unsuccessful, as judged by Architect, remove damaged units and replace with new units.
 - 1. Clean and touch up minor abrasions in finishes with air-dried coating that matches color and gloss of, and is compatible with, factory-applied finish coating.
- C. Test operation of adjustable wall louvers and adjust as needed to produce fully functioning units that comply with requirements.

3.04 CLEANING

- A. Periodically clean exposed surfaces of louvers and vents that are not protected by temporary covering to remove fingerprints and soil during construction period. Do not let soil accumulate until final cleaning.
- B. Before final inspection, clean exposed surfaces with water and a mild soap or detergent not harmful to finishes. Rinse surfaces thoroughly and dry.

END OF DOCUMENT

APPENDIX “A”

**HAZARDOUS MATERIALS SPECIFICATIONS
BID SUBMITTAL**

**Pittsburg Unified School District
Highlands Elementary School
Window In-Kind Replacement
4141 Harbor Street
Pittsburg, California 94565**

Prepared For:

**Pittsburg Unified School District
3200 Loveridge Road
Pittsburg, CA 94565**

Prepared By:

**Sensible Environmental Solutions Inc.
1116 Willow Pass Court
Concord, CA 94520**

February 28, 2017

SES Project No. 16-097

APPENDIX "A"

PITTSBURG UNIFIED SCHOOL DISTRICT HIGHLANDS ELEMENTARY SCHOOL WINDOW IN-KIND REPLACEMENT

HAZARDOUS MATERIALS ABATEMENT TABLE OF CONTENTS

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ABATEMENT PLANS	
Not used.	

APPENDIX “A”

SECTION 00 31 26

EXISTING HAZARDOUS MATERIALS CONDITIONS

PART 1 – GENERAL

1.01 SUMMARY

- A. This section provides a list of known and assumed hazardous materials that may be impacted during renovation, demolition, repair, custodial and/or maintenance activities. The hazardous materials information has been provided through existing surveys conducted by the Pittsburg Unified School District (District) and the District's environmental consultants.
- B. Some materials and items found at the Site either contain or may contain materials known to the State of California to be either hazardous, carcinogenic or reproductive toxins. These include but are not limited to asbestos, lead, PCB's, silica, and other materials.
- C. The Contractor shall hold the District and its consultants harmless for claims, damages, losses, and expenses, including attorney's fees arising out of the Contractor's hazardous materials related work including releases from any incidental disturbance of existing hazardous materials, on-site or off-site spills of hazardous materials, or from non-compliance with the Contract Documents and regulatory requirements.

1.02 HAZARD COMMUNICATION

- A. The District may have conducted previous hazardous materials abatement projects at the site. The hazardous materials abatement oversight information is available for review by appointment only through the District's Project Manager at (925) 473-2428.
- B. Copies of previous hazardous materials report(s) and the AHERA Management Plan for the site are available for review by appointment only through the District's Project Manager at (925) 473-2428.
- C. Asbestos Hazards at Highlands Elementary School
 - 1. Asbestos has been identified at concentrations greater than one percent (>1%) in the following materials:
 - a. White vibration joint cloth (30% Chrysotile asbestos) at the mechanical equipment located at Storage 60 and 77 (Sample no. 098-M1-1).
 - b. Mudded pipe elbow insulation at the Boiler Room, Dishwasher Room, Southeast Hall, Stage North Entry Hallway, and inside wall cavities and ceiling plenums throughout (Sample nos. 04 (#'s 15,16,17), 05 (#'s 18,19,20)).

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- c. 9"x9" vinyl floor tile (all colors) and black mastic at Cafeteria / Multi-purpose, Stage, Costume Room, Admin. Office Supply Room, Classrooms 1, 2, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 20, 21, and 22, all Corridors, Kitchen, Teachers Lounge, Custodians Office, Science/Dark Room, Teachers Work Room, Quest Room, Special Services, Media Center, Work Room/Rec. Room, Women's Restroom Storage (adjacent to Teachers Lounge) (Sample nos. 03 (#14), 06 (#30), and 07 (#31)) (*Note: 9"x9" vinyl floor tile is assumed to be located beneath 12"x12" vinyl floor tile throughout, except at Janitor Closets adjacent to Classroom 21 and 16. 9"x9" vinyl floor tile was removed and replaced with 12"x12" vinyl floor tile in Classrooms 18, 19 and 24. Dates of replacement unknown.*)
 - d. 9"x9" vinyl floor tile (all colors) and black mastic located below carpet at Library, Admin. Office, Principals Office, Health Services, Administrative Assistant Room 26, Classroom 3 [Sample nos. 03 (#14), 06 (#30), and 07 (#31)].
 - e. Spray-on acoustic plaster at ceilings and soffits at ALL Classrooms, Library 42, Stage 116 and Multi-use Room 130, [Sample nos. 01 (#'s 00, 01, 02, 03, 04, 05, 06, 07, 08, 09, 10)] (*Note: Spray-on acoustic plaster was enclosed with new non-asbestos containing gypsum board / taping compound and new 12"x12" acoustic tiles and glue in the Summer of 1999 in all Classrooms, the Stage, the Cafeteria / Multi-purpose Room and the Library. All seams were sealed with caulking for an air tight seal.*)
 - f. Spray-on acoustic plaster overspray at interior HVAC soffits at Classrooms 8, 9, 10, 11, 12, 15, 16, 17, 18, 19, 20, 21, 22, 23 and 24 and Multi-use Room 130.
 - g. Sheet flooring with asbestos containing backing at Restroom Men's Entry Hallway, Restroom Men's Library, Restroom Women's Entry Hallway, Restroom Women's Library, Room 4 Restroom Girls, Restrooms adjacent to Classrooms 1, 4, and 6, and Kitchen (including serving area) (Sample nos. HMS-PUSD-HES-B014407-15-A, B, C).
 - h. Gray / black tar / mastic / sealant at roof mounted exhaust fans (Sample no. 098-M12-1).
2. The following materials have not been sampled and shall be assumed to contain asbestos at concentrations > 1%:
- a. Carpet mastic at Library 42, Admin. Office, Principals Office, Health Services, Administrative Assistant Room 26, Classroom 3, Conference Room, Conference Room Office #2, Conference Room Office #3, Classrooms 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 23, 24, Supply Room 2 (Vault), Vice Principals Office (*Note: Asbestos containing 9"x9" floor tile and mastic is assumed to be present below all carpet throughout the campus.*)
 - b. Blue vinyl cove base and mastics at Classrooms 18 and 24.
 - c. FRP wall panel glue at the Multi-use Room 130 and kitchen areas.
 - d. Wall paper glue at the Multi-use Room 130.
 - e. Metal fire doors.
 - f. Ceramic wall and base tile, grout and mortar / glue at all Restrooms, Kitchen and Serving areas.

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- g. Ceramic floor tile, grout and mortar / glue at all restrooms.
 - h. Pipe insulation and wrapping at straight runs at Dishwasher Room, Southeast Hall, north entry hallway at Stage and throughout at ceiling plenums and wall cavities.
 - i. Fire brick and gaskets associated with the incinerator at Mechanical Room 110.
 - j. There was no access to Storage 107 and 139. All mechanical equipment (i.e. gaskets, vibration joint cloth, fire damper, insulation, etc.) shall assumed to contain asbestos at concentrations greater than one percent unless further inspections and testing are performed by the District's Environmental Consultant.
3. The following sampled suspect materials had results that reported NO asbestos detected by PLM analysis:
- a. White synthetic roofing, tar, gravel and felt underlayments, fiberboard and Styrofoam underlayments at flat roof areas and curbs (Sample nos. 098-M10-1, 098-M10-2).
 - b. Gray HVAC duct seam sealant, gray coatings and beige coatings on roof mounted HVAC duct work (Sample nos. 098-M11-1, 098-M11-2, 098-M16-1, 098-M16-2).
 - c. Silver paint coating on roofing including mechanical and electrical equipment (Sample no. 098-M12-1).
 - d. Black tar coating on roof mounted gas piping and supports (Sample nos. 098-M13-1 and 098-M13-2).
 - e. Felt roofing shingles with fine gravel and felt underlayments at pitched roof areas (Sample nos. 098-M14-1, 098-M14-2).
 - f. White sealants on blocking at roof areas (Sample no. 098-M15-1).
 - g. Paints, beige and brown finish coat stucco / plaster and grey base coat plasters at exterior walls, window panels and overhangs (Sample nos. 097-M13-1, 097-M13-2, 097-M13-3, 097-M13-4, 097-M13-5, 097-M13-6 and 097-M13-7).
 - h. Gray caulking (rubber) at interior and exterior window glazing (Sample nos. 097-M1-1, 097-M1-2, 097-M1-3).
 - i. Black caulking (rubber) at interior and exterior window glazing (Sample nos. 097-M7-1, 097-M7-2, 097-M7-3).
 - j. Paint and white, gray and black window glazing compounds at interior and exterior transom windows above doors (Sample nos. 097-M5-1, 097-M5-2, 097-M5-3).
 - k. Black window caulking at interior and exterior side light windows (Sample nos. 097-M8-1, 097-M8-2, 097-M8-3).
 - l. Paint, white skim coat plaster (smooth) and gray basecoat plaster at interior walls throughout and in-filled window panels throughout building interiors (Sample nos. 097-M2-1, 61-M1-1, 61-M1-2, 61-M1-3, 61-M2-1, 61-M2-2, 61-M2-3).
 - m. Paint, white skim coat plaster (smooth) and gray basecoat plaster at interior ceilings at Costume Room, All Restrooms, Kitchen, Dark Room, Media Center, Custodial Office, Admin Supply Room, Mechanical Rooms (Sample nos. 61-M1-1, 61-M1-2, 61-M1-3, 61-M2-1, 61-M2-2, 61-M2-3).

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- n. Paint, gypsum board and taping compounds on walls and ceilings throughout (Sample nos. HMS-PUSD-HES-B014407-10-A, B, C, 097-M9-1, 097-M9-2, 097-M9-3) (*Notes: At all Classrooms, the Library and the Multi-use room there is asbestos containing spray-on acoustic plaster at all ceiling and soffit areas that is located above the gypsum board, taping compound and glued on 12"x12" acoustic tiles. Additionally, the gypsum board and taping compound is concealed by tackable wall finishes, 12"x12" acoustic tiles, etc.*).
- o. Vinyl covered tackable wall systems and glue located at walls throughout and interior in-filled window panels (Sample nos. 097-M10-1, 097-M10-2, 097-M10-3).
- p. 2'x4' acoustic ceiling and wall tiles (all types) and paints (Sample nos. 02 (#s 11, 12, 13), 08 (#32), 097-M3-1, 097-M3-2, 097-M3-3).
- q. 12"x12" acoustic ceiling, wall and soffit tiles (all types) and glues / mastic (tan and brown) (Sample nos. HMS-PUSD-HES-B014407-7-A, B and C, 097-M6-1, 097-M6-2, 097-M6-3).
- r. Black / brown glue associated with Formica and laminate counter tops (Sample no. 097-M4-1).
- s. White caulking material (patching) at Corridor 92 (Sample no. 097-M11-1).
- t. White / gray grout and mortar associated with 2"x2" ceramic wall tile (green, gray) at corridors (Sample no. 097-M12-1)
- u. Black felt water proofing membrane at interior concrete walls and metal conduit and piping at Storage Rooms / Closets (sampled at Storage 87. Sample no. 098-M2-1).
- v. Residual yellow mastic and fiberglass insulation on metal HVAC ducting at Storage Rooms / Closets (Sampled at Storage 87. Sample no. 098-M3-1).
- w. Paint and vibration joint cloth (black) at mechanical equipment at Storage 29, 38, 97, 98, 99, 106 and 108 (Sample nos. 098-M4-1, 098-M4-2).
- x. Off-white seam tape and sealant / glue on metal HVAC ducting (round and square) at Storage 29 and 38 (Sample nos. 098-M5-1, 098-M5-2, 098-M5-3).
- y. Fiberglass insulation panels with silver backing on metal HVAC ducting at Storage 29 and 38 (Sample nos. 098-M6-1, 098-M6-2).
- z. Silver foil tape with sticky adhesive at HVAC ducting seams at Storage 38 (Sample nos. 098-M7-1, 098-M7-2).
- aa. Residual roof tar at mechanical exhaust vents at Storage Rooms / Closets (sampled at Storage 38 (Sample nos. 098-M8-1, 098-M8-2).
- bb. Grey sealant at square HVAC ducting at Storage 29 (Sample Nos. 098-M9-1, 098-M9-2).
- cc. 12"x12" vinyl floor tile) (speckled oatmeal color) and associated mastic at Cafeteria / Multi-purpose, Cafeteria Foray, Cafeteria West Entry Hallway, Conference Room Closet, Conference Room Hallway, Conference Room Storage, Conference Room Office 1, Costume Room, East Entry Hall, East Hall Reading Room, Eastside Central Hall, Hallway Cafeteria, Library Computer Room, Library Office, Main Entry Foray, Main Office, Northeast Hallway, Northwest Hall, Northwest Hall Teachers Work Room, Parent Coordinator Room, Restroom Women's Storage, Classroom 1, Room 1 Office, Classroom 2, Room 2 Office, Classroom 3, Room 3 Office, Classroom 4 Office, Classroom 5 Office, Classroom 6 Office, Classrooms 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, and 22, Southeast Hall, Southwest Hall,

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Speech / Psychologist Office, Stage Entry North Hallway, Stage Entry South Hallway, Stage North Entry Hallway, Teacher's Lounge, West Center Hall, West Entry Hall, West Hall Storage Room (Sample nos. HMS-PUSD-HES-B014407-2-01A, 01B, 01C (*Note: Except for Classrooms 18, 19 and 24 it is assumed that asbestos containing 9"x9" floor tile and mastic remains below the newly installed 12"x12" floor tile and below carpet where present*)).

dd. Brown, dark brown and black vinyl cove base and mastics located throughout interiors (Sample nos. HMS-PUSD-HES-B014407-1-01A, 01B, 01C, HMS-PUSD-HES-B014407-4-A, HMS-PUSD-HES-B014407-16-A).

4. Areas and/or Spaces known or presumed to be contaminated with asbestos containing materials, dust, and debris include:
 - a. Not used.
5. Areas and/or Spaces where asbestos abatement was conducted include:
 - a. Asbestos containing spray-on acoustic plaster at ceilings and soffits is still present and was enclosed with new non-asbestos containing gypsum board / taping compound and new 12"x12" acoustic tiles and glue in the Summer of 1999 in ALL Classrooms, the Stage, the Cafeteria / Multi-purpose Room and the Library.

D. Lead Hazards at Highlands Elementary School

1. Lead has been detected in individual painted surfaces and surface coatings in concentrations greater than 5,000 parts per million (ppm) lead or 1.0 milligram of lead per square centimeter (mg/cm²). Where ranges of lead levels are indicated, Contractor shall presume the highest level is typical. These lead containing surfaces include, but are not limited to the following:
 - a. Building Exteriors
 - 1) Metal framing associated with doors and louvered vents at Furnace / Storage 29, Storage 33, Furnace / Storage 38, Storage 60, 66, 71, 77, 86, 87, 88, 97, 98, 99, 106, 107 and 108, Mechanical Room 110 and 123, and Storage 139 (1.7 to >9.9 mg/cm²).
 - 2) Wood window and door framing, sills, trim, jambs, headers, etc. painted blue at all exterior aluminum windows (1.0 to 2.1 mg/cm²).
 - 3) Stucco / plaster at walls above and below aluminum windows and building overhangs (1.0 to 1.9 mg/cm²).
 - b. Building Interiors
 - 1) Metal framing associated with doors and louvered vents at Furnace / Storage 29, Storage 33, Furnace / Storage 38, Storage 60, 66, 71, 77, 86, 87, 88, 97, 98, 99, 106, 107 and 108, Mechanical Room 110 and 123, and Storage 139 (1.0 to >9.9 mg/cm²).

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- 2) Wood door framing, jambs and trim / casings at interior Classrooms and the Library (1.0 to 1.6 mg/cm²).
2. Lead has been identified in individual painted surfaces and surface coatings in concentration less than 5,000 ppm lead or 1.0 mg/cm². Where ranges of lead levels are indicated, Contractor shall presume the highest level is typical. These lead containing surfaces include, but are not limited to the following surfaces:
- a. Building Exteriors
 - 1) Metal and FRP doors (-0.2 to 0.4 mg/cm²).
 - 2) Hollow metal door frames, window frames, sidelights and associated framing at corridors (-0.6 to 0.5 mg/cm²).
 - 3) Metal window panels (-0.2 to -0.1 mg/cm²).
 - 4) Metal door frames excluding those at Furnace / Storage 29, Storage 33, Furnace / Storage 38, Storage 60, 66, 71, 77, 86, 87, 88, 97, 98, 99, 106, 107 and 108, Mechanical Room 110 and 123, and Storage 139 (-0.1 to 0.4 mg/cm²).
 - 5) Metal louvered vents at Furnace / Storage 29, Storage 33, Furnace / Storage 38, Storage 60, 66, 71, 77, 86, 87, 88, 97, 98, 99, 106, 107 and 108, Mechanical Room 110 and 123, and Storage 139 (-0.3 to 0.3 mg/cm²).
 - 6) Metal roof mounted and exterior wall mounted HVAC units and associated duct work and support brackets (-0.3 to -0.1 mg/cm²).
 - 7) Concrete walls (-0.1 to 0.0 mg/cm²).
 - b. Building Interiors
 - 1) Metal HVAC units and associated framing and duct work at Furnace / Storage Rooms and Mechanical Rooms (-0.4 to 0.1 mg/cm²).
 - 2) Metal louvered vents at Furnace / Storage Rooms and Mechanical Rooms (-0.1 to 0.0 mg/cm²).
 - 3) Metal HVAC ducting and associated supports at interior Classrooms (-0.3 to 0.2 mg/cm²).
 - 4) Metal HVAC control panels (-0.1 mg/cm²).
 - 5) Metal HVAC registers throughout interiors (-0.4 to 0.0 mg/cm²).
 - 6) Metal ceiling grid associated with 2'x4' acoustic ceiling tiles (-0.5 to 0.1 mg/cm²).
 - 7) 2'x4' acoustic ceiling tiles (-0.3 to 0.0 mg/cm²).
 - 8) 12"x12" acoustic wall and ceiling tiles (-0.3 to 0.1 mg/cm²).
 - 9) Metal ceiling access hatches (-0.1 mg/cm²).
 - 10) Hollow metal door frames, window frames, sidelights and associated framing at corridors (-0.4 to -0.1 mg/cm²).
 - 11) Metal and FRP doors (-0.4 to -0.1 mg/cm²).
 - 12) Metal door frames excluding those at Furnace / Storage 29, Storage 33, Furnace / Storage 38, Storage 60, 66, 71, 77, 86, 87, 88, 97, 98, 99, 106, 107 and 108, Mechanical Room 123, and Storage 139 (-0.4 to 0.0 mg/cm²).

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- 13) Metal screen door at Kitchen 121 (-0.1 mg/cm²).
 - 14) Wood doors (-0.2 to -0.2 mg/cm²).
 - 15) Wood door framing (0.0 to 0.5 mg/cm²).
 - 16) Wood window framing, casing, sills and trim (-0.5 to 0.5 mg/cm²).
 - 17) Wood trim / casing at the ceramic tile mural at Lobby 45 (0.0 mg/cm²).
 - 18) Vinyl coverings on walls, HVAC register panels and tackable wall finishes (-0.3 to 0.5 mg/cm²).
 - 19) Glazings on ceramic wall tile (green and gray) at Corridors and Lobby 45 (-0.6 to 0.3 mg/cm²).
 - 20) Formica / laminate counter tops and backsplash at casework (-0.3 mg/cm²).
 - 21) Plaster and concrete at window panels, walls and ceilings (-0.5 to 0.3 mg/cm²).
3. The Contractor shall assume that all paints and surface coatings contain detectable quantities of lead requiring compliance with CAL/OSHA lead regulation in the absence of objective data to the contrary. Additionally, the Contractor shall assume that, at a minimum, lead is "present" in all of these materials at levels that have a potential, until proven otherwise, to create a lead hazard.
 4. The District has not verified that any paints, coatings, dusts, or materials are "lead free" or below 600 ppm. The Contractor shall treat all paints, coatings, dusts or materials as having a lead content greater than 600 ppm requiring dust controls and personal protective procedures for construction activities in conformance with the Cal/OSHA Lead Construction Standard, 8 CCR 1532.1 lead. Any paint, varnish, or other coating or finish not listed above shall be considered to be lead-based paint with lead levels at or exceeding 5000 ppm lead or 1.0 mg/cm² for this contract.
 5. All firms, including sub-contracted firms who impact lead-based paint (LBP) (5,000 ppm lead or 1.0 mg/cm² or greater) at Child Occupied Facilities shall conduct all work in accordance with 40 CFR Part 745. This includes but is not limited to being an EPA certified firm; having an EPA "Certified Renovator"; providing "on-the-job" training for workers; conducting pre-renovation notifications; following specific work practice procedures for containment, disturbance and final clean-up; and inspection requirements. Renovation is defined in 40 CFR Part 745 as the modification to any existing structure or portion that results in the disturbance of LBP surfaces, unless the activity is performed as part of an abatement. In essence this regulation includes all work activities that disturb LBP surfaces.
 6. The EPA certified Contractor or Sub-contractor(s) "Certified Renovator" shall be responsible for identifying the specific job activities which impact lead-based paint (LBP) during renovation that requires the use of "containment" as described in 40 CFR Part 745. Work also includes but is not limited to provide "on-the-job" training for workers; conduct pre-renovation notifications; follow specific work practice procedures for containment, disturbance and final clean-up; and inspection requirements as defined by regulation.

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7. In addition to lead-containing paints and coatings, the Contractor shall assume that lead is present at detectable levels over 600 ppm in existing plumbing components and solders, glazing compounds, roof jacks, and surficial soils.
- E. Metallic Mercury and mercury compounds are present at this site in fluorescent lighting tubes. All demolition and disposal of these items shall be conducted in accordance with applicable safety and environmental regulation and the requirements of the Contract Documents.
- F. Polychlorinated biphenyl (PCB)-containing fluorescent lighting ballasts. This site contains fluorescent lighting fixtures manufactured or installed prior to 1979. All fixtures known or presumed to have been installed prior to 1979 shall be considered to contain PCB ballasts unless otherwise noted in the contract documents. Removal, handling and disposal of PCB ballasts is subject to applicable regulation and requirements of the Contract Documents.
- G. Crystalline Silica is presumed present in all concrete, plaster, ceramic tile, grouts, and other cementitious materials at this site as well as soils. Worker protection and control of air dust during cutting, drilling, demolition and other construction operations is the responsibility of the Contractor.
- H. The Contractor shall take into consideration all existing known and presumed hazardous materials that may be disturbed or otherwise impacted by the Work of this project. All work of this project that disturbs or otherwise impacts hazardous material shall be considered included in the Work of the project and shall be conducted in accordance with all applicable regulations and the Contract Documents. The Contractor shall use appropriately trained and qualified personnel to conduct all hazardous material related work and shall adhere to the requirements for handling, removal, clean-up, and disposal in accordance with the Contract Documents and all applicable Cal/OSHA, Cal/EPA, Department of Health Services (DHS), and Bay Area Air Quality Management District (BAAQMD) regulations.

1.03 RELATED DOCUMENTS

- A. Contract Documents including hazardous material-related plans and specifications and all other project construction documents. Refer to Section 01 11 00 Summary of Hazardous Materials Work, Article 1.04 Related Documents for a more detailed listing.

1.04 USE OF HAZARDOUS MATERIALS INFORMATION

- A. Hazardous material information identified herein was obtained for the use of the District and its Consultants for planning and design stages of the Project. The above mentioned survey data and reports are not, as a whole, part of the Contract Documents, but can be relied upon by the Contractor to characterize general site conditions, although quantities, friability and other factors may have changed or altered since the published report dates.

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- B. All statements, findings and interpretations in the above mentioned reports are those of the Survey or Environmental Consultant. The District makes no representation, either expressed or implied, as to the completeness or adequacy of the above mentioned reports. Bidders are advised that the limited testing of components allows for generalizations in describing the extent of hazardous materials. Contractors may visit the site and investigate to identify locations of hazardous materials identified herein. Specific components or materials, should be checked against the referenced survey reports and the Contract Documents, or be tested at affected locations, prior to disturbance of such components.

PART 2 – PRODUCTS: NOT USED

PART 3 – EXECUTION: NOT USED

END OF SECTION

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SECTION 01 11 00

SUMMARY OF HAZARDOUS MATERIALS WORK

PART 1 – GENERAL

1.01 GENERAL

- A. The work required to be performed by the Contractor comprises

HAZARDOUS MATERIALS IMPACTED CONSTRUCTION AND ABATEMENT
PITTSBURG UNIFIED SCHOOL DISTRICT
HIGHLANDS ELEMENTARY SCHOOL
WINDOW IN-KIND REPLACEMENT
4141 HARBOR STREET
PITTSBURG, CA 94565
SITE EPA I.D. #: TO BE PROVIDED PRIOR TO START OF CONSTRUCTION

in conformity with plans and specifications herein after identified; including furnishing all materials, labor, tools, equipment, and services necessary there for and incidental there to, complete and ready for use, except as herein after otherwise provided.

- B. The hazardous materials abatement portion of the project includes removal, clean-up, decontamination, and proper disposal of the following materials: asbestos containing materials (ACMs); assumed asbestos containing materials; and asbestos containing construction materials (ACCMs). Abatement will take place in areas of work indicated on the project drawings and where can reasonably inferred to be required to support the project.
- C. The Contractor and its associated Subcontractors shall take into consideration all identified and presumed hazardous materials present that will be impacted by the work of this Project. At minimum, the Contractor’s bid shall take into consideration the information provided in Section 00 31 26, hazardous materials specifications, all contract documents, and the information resulting from Contractor’s own onsite investigation and review of site conditions.
- D. Hazardous materials abatement documents are not to be considered stand-alone documents. In addition to the identified hazardous removal work described in the scope of work, abatement shall include all incidental removal of hazardous materials required to complete the Work. Coordinate all hazardous materials related work with all other work of the Contract as indicated or inferred in the Contract Documents.
- E. The Contractor shall carefully schedule and coordinate all phases of hazardous materials related work to ensure that unprotected personnel are not exposed to hazardous substances. This includes the coordination of all pre-demolition, demolition, alteration, repair, renovation, and new construction work.

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- F. Hazardous material abatement specifications have been prepared on the basis of existing documents and site inspections. Location of materials scheduled for abatement are general in nature. Contractor is responsible for locating, accessing and removing all hazardous materials (i.e. ACMs; assumed ACMs; ACCMs) in areas of work to support the modernization project.
- G. The Contractor shall coordinate the removal of all furniture, fixtures, casework, fixed and movable objects, non-hazardous partition walls, finishes, mechanical ducting, etc., prior to hazardous material abatement. Refer to the Contract Documents for items scheduled for salvage and reuse. Any work that could impact known or assumed hazardous materials shall be conducted within a negative pressure enclosure in accordance with the requirements herein.
- H. All hazardous materials related work shall be performed after normal school hours and / or on weekends during the academic school year. Hazardous materials related work may not be performed in buildings or on the site during normal school hours without the written approval from the District.
- I. All submittals as required by the project specifications must be approved prior to the start of any hazardous materials related work. The Contractor shall review Specification Sections 02 82 00 and 02 83 00 and Article 1.06 of this section for specific submittal requirements.
- J. To the extent possible, the Contractor shall construct containment areas to the full extent of each area of work on each floor. Additional clearance samples resulting from separation of containment areas into multiple containments will be back charged to the Contractor.
- K. Contractor's electrician shall de-energize and lockout electrical power to the work areas to the greatest extent possible. Contractor's electrician shall install temporary power from an outside source. Temporary power shall be protected with ground fault interrupter circuit breakers. The contractor shall supply adequate power to each of the work areas solely dedicated for use by the District's Environmental Consultant.
- L. Provide, operate and maintain magnahelic gauges / circular or strip chart recorders of appropriate range at the entrance to each interior work area during asbestos and lead related activities. No asbestos / lead work shall be conducted unless the system is installed, operating and recording correctly.
- M. All differential air pressure units and vacuums must be DOP tested on-site prior to use by an independent third party. If previously tested equipment is removed from the site at any time the equipment must be re-tested on-site prior to its re-use.
- N. All polyethylene sheeting and construction materials shall be fire retardant.

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- O. Final clearance for lead work areas will be conducted by the District's Environmental Consultant in accordance with the California Department of Public Health Services and Environmental Protection Agency lead regulations. Refer to Specification Section 02 83 00.
- P. Contractor shall be responsible for securing all entrances and exits to hazardous materials work areas to prevent unauthorized access. Contractor shall affix appropriate warning signs at the entries and approaches to the regulated area(s) as required by regulation and the contract documents.

1.02 HAZARDOUS COMMUNICATION

- A. Hazardous materials present in the building(s) and structures at this site include: asbestos containing materials (ACMs); assumed asbestos containing materials; asbestos containing construction materials (ACCMs); lead-based paint (LBP); lead-containing coatings and materials; polychlorinated biphenyl (PCB) light ballasts; and mercury containing fluorescent lighting tubes. These materials will significantly impact demolition and renovation activities. The Contractor shall review Specification Section 00 31 26 – "Existing Hazardous Materials Conditions" for known and / or assumed hazardous materials that are to be impacted by the project.
- B. Asbestos containing spray-on acoustic plaster at ceilings and soffits is still present and was enclosed with new non-asbestos containing gypsum board / taping compound and new 12"x12" acoustic tiles and glue in the Summer of 1999 in ALL Classrooms, Stage 116, Multi-use Room 130 and Library 42. Disturbance and / or impaction to the asbestos containing acoustical plaster is restricted to asbestos trained personnel only.
- C. The HVAC soffits at Classrooms 8, 9, 10, 11, 12, 15, 16, 17, 18, 19, 20, 21, 22, 23 and 24 and Multi-use Room 130 are contaminated with asbestos containing spray-on acoustic plaster overspray and debris. Access to the HVAC soffits is restricted to asbestos trained personnel only.

1.03 SCOPE OF WORK

- A. The Contractor(s) work includes the removal of hazardous materials to the extent specified and/or necessary prior to non-hazardous demolition, renovation, alteration, repair, or other construction operations. The Contractor is responsible for locating, accessing and removing all hazardous materials in areas of project work including materials and assemblies scheduled for removal and any necessary removal coincidental to the completion of the work of the project. All removal shall be to the extent necessary to properly complete the work of the project. This project requires close coordination with all other trades and work on this project. The Contractor's hazardous materials scope of work includes but is not limited to the following:
 - 1. Remove, clean-up and dispose of exterior redwood trim at window areas coated with lead-based paint (LBP) to the extent required to support removal and replacement of aluminum windows and associated framing. Work includes the

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removal of LBP at exterior redwood trim to facilitate repair of redwood trim damaged during the removal and replacement project and to repair redwood trim identified with dry-rot. For Bidding Purposes, the Contractor shall assume that approximately 10% of the LBP at exterior redwood trim will be required to be removed to facilitate window removal and repair.

2. Remove exterior stucco / plaster coated with LBP to the extent required to support removal and replacement of aluminum windows and associated framing. The exterior stucco plaster is located at exterior walls, window panels and overhang ceilings. Work includes drilling, coring, anchoring and affixing to exterior stucco / plaster coated with LBP and removal of LBP at exterior stucco / plaster to facilitate repair of areas damaged during the removal and replacement project. For Bidding Purposes, the Contractor shall assume that approximately 10% of exterior stucco / plaster coated with LBP will be required to be repaired.
- B. The Contractor shall refer to the Hazardous Materials Abatement Specifications, Architectural Drawings, other project drawings and the Contract Documents for approximate locations and extent of hazardous materials related work, project phasing, bid alternates, and other requirements for completion of the Work.
- C. All hazardous materials related work shall be conducted in accordance with applicable federal, state, local regulations and the Contract Documents. The most stringent requirements shall take precedence.
1. All lead-related work shall be conducted in accordance with Section 02 83 00 – Lead Impacted Construction & Abatement.
- D. Asbestos containing acoustical ceiling and soffit plaster is still present and was enclosed with new non-asbestos containing gypsum board / taping compound and new 12"x12" ceiling tiles and glue in the Summer of 1999 in ALL Classrooms, Stage 116, Multi-use Room 130 and Library 42. Disturbance and / or impaction to the asbestos containing acoustical plaster is restricted to asbestos trained personnel only.
- E. The HVAC soffits at Classrooms 8, 9, 10, 11, 12, 15, 16, 17, 18, 19, 20, 21, 22, 23 and 24 and Multi-use Room 130 are contaminated with asbestos containing acoustic plaster debris and access to the HVAC soffits is restricted to asbestos trained personnel only.
- F. The Contractor shall ensure that any hazardous materials contamination resulting from any construction activities on this site is cleaned up prior to each room or work area is turned back over to the District. The same hazardous materials clearance methods and standards shall be used to determine adequacy and completeness of the Contractor's final clean-up operation prior to returning each room or work area to the District.
- G. The Contractor shall ensure that their Asbestos Supervisor and California Department of Public Health (CDPH) Certified Lead Supervisor on this project speaks fluent English and is present on the project during all asbestos and lead-related activities.

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- H. Hazardous materials related work entails adhering to special requirements for the protection of workers, occupants, the public and the environment, and requires consideration of, and close coordination with, work specified elsewhere for this site.

1.04 RELATED DOCUMENTS

A. Hazardous Materials Related Documents

1. Section 00 31 26 – Existing Hazardous Materials Conditions.
2. Section 02 83 00 – Lead-Impacted Construction & Abatement

B. Contract Documents for Highlands Elementary School Window In-Kind Replacement.

1.05 DEFINITIONS

A. Definitions Applicable to All Hazardous Materials Specification Sections:

1. Abatement: Special methods and procedures to control or prevent hazardous releases during removal, repair, encapsulation, and enclosure of hazardous materials. This definition is not meant to imply an intent to reduce or eliminate an existing hazard unless so stated in the project work scope.
2. Air Filtration Equipment: A portable air re-circulation system equipped with HEPA filtration and used to cleanse air of particulate matter within an abatement Work Area or containment. Air filtration equipment is essentially the same as differential pressure equipment except it re-circulates air instead of exhausting it.
3. Airlock: A system for permitting ingress and egress with minimum air movement between a contaminated area and an uncontaminated area. Typically consisting of chamber with two curtained doorways at least 3 feet apart. Note: See Curtained Doorway.
4. Air Monitoring: The process of measuring the airborne levels of one or more air contaminants, such as asbestos, lead, by collecting a specific volume of air in a stated period of time. “Personal” air monitoring is used to determine compliance with exposure limits; “general area” and “perimeter” air samples are used to evaluate the effectiveness of hazard controls; “background” air monitoring is used to monitor initial conditions prior to disturbance or abatement; and “clearance” air is used for comparison with air quality standards established for assessing status and acceptability of work completion.
5. Amended Water: Water to which a surfactant (chemical wetting agent has been added to improve penetration and wetting.

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6. Authorized Visitor: The District’s Project team member, the District’s Representative, and any Representative of a regulatory or other agency having jurisdiction over the project.
7. CDPH: California Department of Public Health.
8. Competent Person: One who is capable of identifying existing asbestos, lead or other hazards in the workplace and selecting the appropriate control strategy for worker exposure, who has the authority to take prompt corrective measures to eliminate them. All work performed in regulated work areas must be supervised by a “Competent Person” specially trained in accordance to regulation.
9. Containment or Containment System: The system of physical barriers and protective coverings (e.g. plastic sheeting) used to enclose or “contain” the hazardous materials within a Regulated Area (or Work Area) and thereby prevent personnel exposure and environmental contamination outside the Regulated Area. Includes simple mini-containments to full HEPA exhausted negative pressure enclosure (NPE) with contiguous worker and/or equipment Decontamination Enclosure System(s). Also see related Mini-containment below and Negative Pressure Enclosure definitions.
10. Critical Barrier: A unit of temporary construction of air tight and impermeable barrier, which provides the only separation between an asbestos or other hazardous materials Work Area and an adjacent, potentially occupied area.
11. Curtained Doorway – A device to allow ingress or egress from one room to another while permitting minimal air movement between the rooms. Typically constructed by placing two overlapping sheet of plastic sheeting oven a existing or temporary doorway, securing each along the top of the doorway, and securing the outer vertical edge of each of the sheets along the adjacent vertical sides of the doorway.
12. Decontamination Enclosure System: A series of connected rooms, with airtight doorways between any two adjacent rooms, for the decontamination of workers and of materials and equipment. A decontamination enclosure system always contains at least one airlock.
13. Differential Pressure Equipment: A portable local exhaust system equipped with HEPA filtration and capable of maintaining a constant, low velocity air flow into contaminated areas from adjacent uncontaminated areas. Also referred to as “HEPA units” or “HOGS”.
14. District: The Pittsburg Unified School District (PUSD) and its designated representatives (District’s Representatives) for this project. For the hazardous materials-related work of this project, the District’s Representatives include the District’s Project Manager, Construction Manager, Inspector of Record

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(Construction Inspector) and other persons designated or appointed to represent the District in all matters concerning the construction of the Project.

15. Disturbance: Contact or activities, which disrupt the matrix of a hazardous material, crumble or pulverize a hazardous material, or otherwise cause airborne dust and/or visible debris containing hazardous constituents to be released. Typically applied to asbestos or lead related work.
16. Environmental Consultant – firm and its representatives retained to provide environmental consulting services for the District including surveys, project design, bid support, construction technical support and construction compliance observation and monitoring services. Also known as the District’s Environmental Consultant.
17. Equipment Decontamination Enclosure: That portion of a decontamination enclosure system designed for controlled transfer of materials and equipment, typically consisting of a wet sponge area, a washroom and a holding area.
18. Exposure Assessment: Sampling of the concentrations asbestos, lead or other airborne contaminate within the breathing zone of worker during representative work operations and shifts to determine airborne exposure levels as required by regulation.
19. Fixed Object – A unit of equipment, furniture or other features in the Work area that cannot be removed from the Work Area. Fixed Objects typically require protection from contamination during abatement or related work that disturbs asbestos, lead or other hazardous materials.
20. HEPA Filter: High Efficiency particulate air filter means a filter that is at least 99.97% efficient in removing monodisperse particles of 0.3 micrometers in diameter. Required filtration system for vacuums, local exhaust systems for asbestos, lead and other specified hazardous material work. For respirator cartridges, the equivalent NIOSH 42 CFR 84 particulate filters are the N100, R100, and P100 filters where HEPA filtration is required (e.g. asbestos, lead, cadmium, etc.)
21. HEPA Vacuum Equipment: Vacuuming equipment with a HEPA (UL 586 labeled) filter system.
22. Mini-containment or Mini-enclosure – A small temporary enclosure constructed of impervious material (e.g. plastic sheeting) with at least one air lock to permit ingress and egress. The entire Work Area is enclosed or contained within this system to prevent the release of contamination outside the work area.
23. Negative Exposure Assessment (NEA): Air sampling of representative operations to demonstrate employee exposures are below the permissible exposure limits for similar operations undertaken using similar method and procedure, production rates, by similarly trained and skilled employees. Often conducted for limited

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maintenance and operations type work involving asbestos and/or lead. To be accepted as valid, the NEA must have been conducted within last 12 months.

24. Negative Pressure Enclosure (NPE): An enclosed or contained area of any configuration constructed of polyethylene sheeting with a minimum of four (4) air changes per hour and a negative pressure of -0.02 inches of water as compared to surrounding area outside the enclosure. NPE must be maintained until final air clearance sampling or final dust wipe sampling and air must be exhausted to the exterior of the building.
 25. Regulated Area – A controlled access work area where asbestos, lead, or other hazardous materials are being removed or otherwise disturbed. Access is limited to specially trained and protected personnel. The perimeter of the regulated area is established to preclude airborne hazards to personnel or environmental contamination outside the Regulated Area. Minimum controls involve signage and barrier tape but controls can range all of the way up to full negative pressure containment with HEPA filtration.
 26. View Port: A clear material, typically Plexiglas, which allows observation of all possible areas inside the work area.
 27. Waste Generator Label: Waste Generator Label shall include the Generator's Name, ID Number, Address and Waste Manifest Number.
 28. Wet Cleaning: The process of eliminating asbestos, lead or other contamination from building surfaces and objects by using cloths, mops, or other cleaning tools which have been dampened with water, and by afterwards disposing of these cleaning tools as contaminated waste. Often used in conjunction with detergents and/or other agents for lead, mold or other contamination.
 29. Work Area: Designated rooms, spaces, or areas of the project in which abatement, removal or other disturbance activities involving asbestos, lead or other hazardous materials are undertaken or which may become contaminated as a result of such abatement actions. A contained Work Area is one which has been sealed and equipped with a decontamination enclosure system. A non-contained Work Area is a controlled-access Work Area which has not been sealed nor equipped with a decontamination enclosure system. Also known as a “Regulated Area”.
 30. Worker Decontamination Enclosure System: That portion of a decontamination enclosure system designed for controlled passage of Workers, and other personnel and authorized visitors, typically consisting of a clean room, shower room, and an equipment room.
- B. Definitions specific to a particular hazardous material are found in the specific hazardous material abatement specification section and are to be used to supplement the definitions of this section.

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1.06 SUBMITTALS

- A. General. Submit Pre-Job hazardous materials abatement submittals in accordance with Section 01 33 00 of the Contract Documents and at least 14 days prior to any planned work. Allow a minimum of 14 days for review by the Environmental Consultant. Additional review time will be required for re-submittals of rejected or incomplete submittals. Upon written approval of the Pre-Job submittal package, the hazardous materials abatement contractor may mobilize to site but shall submit the required remaining Pre-Start submittal items prior to starting any hazardous materials abatement work. Daily Submittals are due within 24 hours of completion of each day of site work. Inspection, Weekly, and Close-out Submittals are to be submitted within the time frames indicated below. At least one copy of each completed submittal shall be maintained on-site and shall be available for review. Refer to the Submittal Check Sheet which is provided as Appendix A to this section.
- B. Pre-job Submittals. Submit a minimum of three (3) copies and one (1) electronic copy (pdf format) of each of the following hazardous materials submittals. Submittals shall be organized by type of work (asbestos abatement, lead impacted construction and abatement, etc.) and otherwise in the order specified herein. Partial submittals and/or submittals not organized in the required order will be considered deficient and not acceptable for review. No hazardous materials related work will begin until the submittal package has been fully approved in writing. Refer to the Submittal Check Sheet which is provided as Appendix A to this section.
1. Licensing and Registration: Submit copies of current and valid certificates for the following:
 - a. Contractor’s license and Contractor’s asbestos certificate issued by the California State Licensing Board (CSLB);
 - b. Contractor’s certification to conduct lead-based paint renovation, repair and paint activities pursuant to 40 CFR 745.90 (i.e. EPA RRP).
 2. Notifications, Communications and Postings. Provide copies of all required notifications including the following:
 - a. Division of Occupational Safety and Health (Cal/OSHA) – Local Office (Pre-start notification lead)
 - b. California Department of Public Health (CDPH)
Childhood Lead Poisoning Prevention Branch
850 Marina Bay Parkway
Building P, Third Floor
Richmond, CA 94804-6403
(Abatement of Lead Hazards Notification)
 - c. Where local police and fire departments have jurisdiction, provide required notifications.

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3. Respiratory Protection Plan: Submit a site specific written respiratory protection plan along with a written standard operating procedure governing selection, fit testing, use, and storage of respirators in accordance with applicable regulation. Include NIOSH Certification and manufacturer’s information that indicates respirators to be used in this project have been properly selected for the anticipated hazards and hazard levels.
4. Detailed Work Plan: Submit a detailed work plan proposed for use in complying with the requirements of each specification section (02 82 00 and 02 83 00) applicable to the work to be performed for each hazardous material (asbestos abatement, lead impacted construction and abatement, etc.) at each abatement/removal location and phase. Each work plan shall include:
 - a. A drawing or sketch showing details of the containment area including location of the containment boundaries, Decontamination Enclosure System(s), portable fire extinguishers, Differential Pressure Equipment (HEPA Units), and emergency exit routes;
 - b. Description of Regulated Area/Containment construction including materials;
 - c. Description of proposed removal methods, equipment, and materials for each type of hazardous material and condition;
 - d. Method of containment and clean-up of hazardous materials if there is an unexpected breakage or breach.
5. The Contractor shall submit a detailed schedule for completing hazardous materials work within the allowable time frame. The schedule shall identify hours of work and locations of work and the anticipated schedule of completion for each regulated work area.
6. Method of secure storage of hazardous materials and hazardous wastes at the site.
7. Waste Transportation and Disposal:
 - a. Name, address, EPA I.D. number and telephone number of each transporter of hazardous material waste and removed hazardous materials to be recycled.
 - b. Method of disposal for each type of waste generated (i.e. lead, etc.) indicating land disposal (treated or non-treated), incineration, recycling, etc.
 - c. Name, class, address, EPA I.D. number and telephone number of each treatment, storage, and disposal (TSD) waste site(s) to be utilized for disposal and facility or site to be used for recycling hazardous wastes. Clearly indicate what wastes are anticipated to be disposed or recycled at each TSD site or facility.

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8. Rental Equipment Notifications: When rental equipment is to be used in removal areas or to transport waste materials, provide a copy of written notification given to the Rental Company informing them of the nature of use of the rented equipment. Otherwise, certify that no rental equipment is to be used.
 9. Product Data: Manufacturers product data for all items required for complete and proper execution of the work, this includes product data for items listed in Part 2 Products of Section 02 83 00 as applicable. Product data shall include manufacturing product data, specifications, application instructions; material safety data sheets (MSDS) and other information as necessary or required. All data sheets must be legible. Do not submit data for products not intended for use on this project.
- C. Pre-start Submittals. Submit a minimum of one (1) copy of the following hazardous materials submittals to the Environmental Consultant at the site prior to the start of hazardous materials work. Additionally the Contractor shall maintain one (1) copy at the site at all times during hazardous materials related work. Submittals shall be organized by type of work (asbestos abatement, lead impacted construction and abatement, etc.) and otherwise in the order specified herein. The Contractor's Supervisor shall be held responsible for the accuracy and authenticity of the submittals provided. Discovery of altered or misleading personnel documents provided by the Contractor will result in the removal of such person(s) from the project immediately. Repeated offenses will result in the removal of the Contractor's Supervisor. Refer to the Submittal Check Sheet which is provided as Appendix B to this section.
1. Personnel Qualifications: Personnel documents required by this section shall be organized by individual employees and must be current and valid. All workers who will be performing work at the site will be required to show photo documentation prior to approval of their personnel documents. Workers who do not have all the required documentation present at the site, including photo documentation, will be denied access to the type of hazardous material Work Areas for which they are lacking full valid documentation.
 - a. CDPH Lead Certifications. Employee training certifications demonstrating that all employees engaged in lead removal activities have attended formal training by a California Department of Public Health (CDPH) accredited training provider to conduct lead related activities in accordance with the worker training provisions in the CAL/OSHA and CDPH lead regulations and this specification:
 - 1) The minimum acceptable training course duration is 40 hours for the Contractor's Supervisor/Competent Person and 24 hours for abatement workers.

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- 2) The Contractor's Supervisor(s) and worker(s) shall be certified through the CDPH lead accreditation program for lead-related construction. Copies of each employee's certification shall be provided (*Note: Course completion forms do NOT constitute current certification per CDPH and are NOT accepted as proof of current certification. Only actual CDPH cards with current dates are valid to meet CDPH certification requirements*).
 - 3) Updated information shall be provided in advance of on-site lead supervisor and worker personnel changes.
 - 4) The Contractor's CDPH Accredited Lead Supervisor shall be onsite at all times during lead-related work.
- b. EPA Lead Renovation, Repair and Painting (RRP) Training Certifications. Employee training certification(s) for the EPA Certified Renovator and training documentation for all trained individuals engaged in lead removal activities.
 - c. Medical Examination: Submit proper documentation, in the form of the physician's written opinion, showing that all hazardous materials abatement personnel scheduled for this project have had the appropriate medical examinations applicable to their assignments. Exams must be in accordance with 8 CCR 1532.1 for lead and 8 CCR 5144 for respiratory protection. All exams must have been conducted within the last 12 months. Respiratory use evaluation exams alone do not suffice for asbestos and lead related work. Do not submit actual medical exam results. The written physician's opinion should indicate what exam(s) were provided and whether there are limitations on the worker.
 - d. Baseline blood lead testing performed in accordance with CAL/OSHA 8 CCR 1532.1 Lead and Federal OSHA 29 CFR 1926.62 Lead. The baseline blood lead shall have been within the past 30 days.
 - e. Respirator Fit Tests: Submit proper documentation that personnel who will be entering Regulated Areas have had a qualitative respirator fit test performed within the last 12 months for all face fitting respirators.
 - f. Provide a signed copy of Certificate of Worker's Acknowledgment (Appendix C) for each worker conducting hazardous materials related removal work.
 - g. All other hazardous materials hazard communication training and related documentation for general construction work shall be kept on site for review upon request.
2. Calibration Data: Submit calibration data for the secondary standard (rotometer) that will be used on this project to calibrate personal air sampling pumps. The secondary standard must be calibrated to a primary standard within the last (6) six months.

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3. HEPA Filtration Certifications:
 - a. Provide third party test certificates for all Differential Pressure Equipment and HEPA Vacuums to be used on this project. Such Certificates shall document that each item of equipment has been tested on-site prior to start-up and that the results have demonstrated that each HEPA equipment assembly meets the efficiency requirement for HEPA filtration as an installed system or unit of equipment.
 - b. All HEPA filtration testing must be conducted by challenging the installed filter system with 0.3 micrometer diameter particles using a dioctyl phthalate (DOP) particle generator & appropriate aerosol measurement test equipment designed for this purpose. Alternate test methods may be accepted if demonstrated to be equivalent and approved by the Environmental Consultant.
 - c. Test certificate stickers shall be placed on each machine tested and a copy of the testing certification shall be provided to the Environmental Consultant. The test result, date and time of testing, testing firm, and signature of qualified test technician shall be included on each certification along with equipment identification information.
- D. Daily Submittals. As applicable, within 24 hours following the completion of each work shift, the Contractor shall submit the following information to the Environmental Consultant, as required by the applicable section.
 1. Submit an employee roster for each work shift (Appendix D).
 2. Work Area entry/exit logs (Appendix E).
 3. Personal Air Monitoring Results: Provide copies of all personal air sampling results, 8-hour time weighted average (TWA) and short term exposure limit (STEL) results as applicable. Results shall be submitted on a daily basis or as approved by the Environmental Consultant.
 4. Waste Manifests: Each time Hazardous Waste (i.e. lead, etc.) and Non-Hazardous Waste is removed from the site; the Contractor shall submit complete and signed manifests to the Environmental Consultant. For hazardous waste manifests, submit the generator copy including a completed Land Disposal Restriction Form for each manifest to the Environmental Consultant.
 5. Special Reports: The Contractor shall submit a special report of unusual events of significance which occurs at the site. The report shall include the date and time of the event, activities leading up to the event, a detailed account of the event, persons involved, corrective actions taken and action taken to prevent a reoccurrence.

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- E. Inspection Submittals. The Contractor shall submit to the District and the Environmental Consultant a completed Inspection Form (Appendix G) at minimum 48 hours prior to inspection requests. Failure to properly notify the District and the Environmental Consultant in writing 48 hours in advance of a required hazardous materials inspection shall NOT result in an increase in number of days and/or shifts to the Contractor's allotted schedule.
- F. Weekly Submittals. The Contractor shall submit an updated detailed schedule for completing hazardous materials work within the allowable time frame on a weekly basis. The schedule shall identify hours of work and locations of work and the anticipated schedule of completion for each regulated work area. The Short Interval Schedule (SIS) or an equivalent weekly “look ahead” schedule can be used for this purpose.
- G. Close-Out Submittals. Within 10 days following the completion of the Contractor's work, the Contractor shall submit the following information to the Environmental Consultant.
 - 1. All outstanding submittal information including; personal air sampling results, manifests, daily logs, sign-in/sign-out logs, and all appendices required by this contract.

1.07 WORK SCHEDULE

- A. Onsite hazardous materials related work shall not commence until all required submittals have been reviewed and approved. Delays due to deficient submittals will not result in contract time extensions.
- B. Within the overall construction schedule, the total allotted time allowed for completion of all hazardous materials abatement work required by the Contract Documents is as follows:
 - 1. Ten (10) eight-hour shifts (Monday through Friday) for all hazardous materials related work.
- C. The Contractor shall refer to the Contract Documents for construction phasing associated with the above allotted time to complete all interior and exterior hazardous materials related work.
- D. The total number of work shifts allotted for the Contractor's completion of hazardous materials related work for each phase of hazardous materials work includes the time required for the Environmental Consultant to conduct final clearance inspections and testing.
- E. The Contractor will be responsible for additional costs incurred by the District for the Environmental Consultant for additional monitoring, consulting and analytical costs associated with working hours beyond the stipulated number of hours per shift and any additional shifts worked beyond the allotted number of shifts scheduled for the

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hazardous materials related work at the hourly rates, shift rates, and analytical rates established in Article 1.12 of this section.

- F. Failed inspections and failed clearance tests shall be considered the result of defective work by the Contractor and, therefore, the Contractor shall be responsible for any additional travel, labor, and analytical costs associated with additional inspections and clearance testing by the Environmental Consultant.
- G. The Contractor shall submit a detailed schedule for completing hazardous materials related removal and abatement work within the allowable time frame. The schedule shall identify hours of work and locations of work and the anticipated schedule of completion for each regulated work area. This schedule shall be provided prior to the start of any hazardous materials related removal or abatement work.
- H. The Contractor shall provide to the District and the Environmental Consultant a minimum of one week (7 days) advance notice prior to start of each phase of work. In addition, the Contractor shall provide the District and Environmental Consultant a minimum 48 hours written notice for all pre-start and final visual hazardous materials inspection requests within each phase of work. Failure to properly notify the District and the Environmental Consultant in writing 48 hours in advance of a required hazardous materials inspection may result in inspection delays but shall NOT result in an increase in number of days and/or shifts to the Contractor's allotted schedule. Cost associated with failure to provide timely notices shall be borne solely by the Contractor.
- I. The Contractor shall be bound to conducting its work activities during the dates and times specified in the approved construction schedule. Schedules and times that deviate from the schedule must be submitted and approved 72 hours in advance by the District and Environmental Consultant.
- J. The Contractor shall provide to the District and the Environmental Consultant a minimum of 24 hours notice of their intent to cancel a previously scheduled workday. Failure to properly notify the District and the Environmental Consultant in writing will result in the loss of a full day or full shift to the Contractor's allotted schedule and the Contractor will be responsible for the Environmental Consultant shift cost established in Article 1.12 of this section.

1.08 SEQUENCE OF CONSTRUCTION OPERATIONS

- A. The recommended sequence of construction operations for this project is as follows:
(Note: sequences may vary to best accomplish the work in a logical flow and/or to accommodate the District's needs. The Contractor may propose alternate sequences for approval by the District and Environmental Consultant.)
 - 1. Insolate Construction Areas from Occupied Areas as required by the Contract Documents.

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2. Set-up of regulated areas (including NPE's where required) for hazardous materials related work.
3. Hazardous Materials Work.
4. Remaining Construction Work

1.09 PRE-CONSTRUCTION MEETING FOR HAZARDOUS MATERIALS RELATED WORK

- A. An initial progress meeting recognized, as "Pre-Construction Meeting" will be convened by the District prior to the start of any hazardous materials related work. Meet at the project site at a date and time to be determined.
- B. This is an organizational meeting to communicate and review project communication lines, responsibilities, schedules, submittal issues, project details, temporary facilities, security issues and other project related issues.
- C. The following individuals shall attend this meeting: the District; the Environmental Consultant; the Contractor's Principal or Superintendent; the Contractor's Competent Person scheduled for the project, and; any pertinent subcontractors.

1.10 ENVIRONMENTAL CONSULTANT

- A. The Environmental Consultant is authorized to have free access to all hazardous materials Work Areas at any time. The Contractor shall supply the Environmental Consultant with disposable coveralls, respirators, replacement respirator cartridges, knee pads, flashlights, two way radios and any other required equipment.
- B. The Environmental Consultant is authorized to conduct intermittent or continuous compliance observation and monitoring including, but not limited to:
 1. Start up, progress, and clearance inspections for adequacy of containment, procedural compliance with contract documents, and completeness of work;
 2. Air sampling for asbestos, lead or other contaminate to determine containment integrity;
 3. Dust wipe, surface, bulk, or soil sampling for lead, PCB, or other hazardous materials to determine initial conditions and to evaluate Contractor containment controls;
 4. Clearance air and surface sampling to evaluate compliance with completion standards; and
 5. Collection and review of documentation to be provided by the Contractor including Pre-Start, Daily, Inspection, Weekly, and other required submittals.

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- C. The Contractor shall ensure that full cooperation is provided to the Environmental Consultant in carrying out the Environmental Consultant's responsibilities as the District's Representative including the immediate correction of any problems identified. The Contractor shall fully comply with the specifications and any applicable regulations.

1.11 ENVIRONMENTAL TESTING

- A. The Environmental Consultant will be collecting dust wipe samples at the completion of lead related activities where required or deemed appropriate by the District. Sample results in excess of lead dust clearance levels (refer to Section 02 83 00) will require cleanup by the Contractor of the affected areas using approved cleaning techniques at no additional cost to the District. All costs for additional testing (i.e. Consultant fees and laboratory analysis) shall be the responsibility of the Contractor.

1.12 CONSULTANT FEES AND TESTING COSTS

- A. In accordance with the General Conditions of the Contract Documents or as specified elsewhere in the Contract Documents by the District, the Contractor shall be responsible for additional costs incurred by the District for monitoring and consulting work by the Environmental Consultant when the additional work and/or costs are caused by the Contractor or the Contractor's work activities as described herein.
- B. When the Contractor's work activities, actions or inactions are determined by the District to have resulted in any of the following circumstances or conditions, the Contractor shall be responsible for taking action to correct any of these deficient condition(s) identified and shall be responsible for all associated costs including the cost of the Environmental Consultant and all associated analytical costs:
 1. Breach of containment, hazardous materials spills (i.e. lead, etc.) outside the Work Area based on visual evidence containment failure or contamination release;
 2. Containment failure or other releases as evidenced by lead dust wipe sample results over 40 $\mu\text{g}/\text{ft}^2$ outside the lead-related construction Work Area;
 3. Other hazardous materials related emergencies arising out of the Contractor's work;
 4. Re-work of defective and/or incomplete abatement work as evidenced by failed visual inspections or failed clearance test results;
 5. Incomplete abatement work (i.e. additional removal of hazardous materials due to lack of proper planning, proper layout for removal, etc.) as evidenced by the set-up of additional regulated areas (containments) requiring additional removal, inspections and testing at work areas/zones where the hazardous materials related work was previously completed by the Contractor;

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6. Failure to complete scheduled hazardous materials work within the total allotted number of work shifts specified in this section for the base bid, phase, or alternate as applicable. Partial shifts shall be counted as whole shifts for the purpose of determining the total number of hazardous material related work shifts worked for this Contract.
 7. Failure to provide the District's Project Manager and the Environmental Consultant a minimum of 24 hours notice of their intent to cancel a previously scheduled workday. This will result in the Contractor being responsible for the entire work shift cost of the Environmental Consultant as though the shift had been worked.
- C. The following rates shall be used to determine the additional Environmental Consulting costs and shall be considered agreed upon for determining the monetary damage to be back charged to the Contractor for any of the conditions described in Paragraph B above:
1. Daily Hourly Rates (Regular Business Hours – Monday thru Friday) – Hourly rates for each technician for additional on-site monitoring and/or consulting shall be: \$120 per hour for each additional hour of work over 8 hours but less than 12 hours in a day; \$160 per hour for each hour worked over 12 hours but less than 24 hours per day;
 2. Off Shift Hourly Rates (Weekends and Night Work) – Hourly rates for each technician for on-site monitoring and/or consulting shall be: \$120 per hour for each hour of work less than 12 hours in a day; \$160 per hour for each hour worked over 12 hours but less than 24 hours per day;
 3. Daily Shift Rates (Regular Business Hours – Monday thru Friday) – Shift rates shall be charged at the rate of \$525 per 4-hour shift; \$875 per 8-hour shift; \$1,125 per 10-hour shift; and \$1,390 per 12-hour shift for compliance observation and monitoring. Each shift includes up to six (6) PCM air samples or six (6) lead air samples;
 4. Off Shift Rates (Weekends and Night Work) – Shift rates shall be charged at the rate of \$695 per 4-hour shift; \$1,200 per 8-hour shift; \$1,450.00 per 10-hour shift; and \$1,720 per 12-hour shift for compliance observation and monitoring. Each shift includes up to six (6) PCM air samples or six (6) lead air samples; and
 5. Analytical Costs – Analytical costs will be charged at actual costs plus 15 percent for additional samples required for additional shifts, spills, other emergencies and re-work.

1.13 SPECIAL PROVISIONS

- A. Prior to disturbing any hazardous materials, the Work Area must be effectively isolated from interior and exterior areas occupied or in use by the District. Isolation shall be by rigid physical construction barriers and HVAC isolation by shut down and/or capping in addition to any required critical barriers or other specific containment and control requirements. Alternative methods may be proposed by the Contractor but must be approved by the District and Environment Consultant in advance.

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- B. All plastic sheeting and construction materials for construction of barriers, containments, decontamination units, critical barriers and related controls shall be flame retardant or fire rated.
- C. All electrical power to the Work Areas shall be de-energized and locked out to the extent possible with any remaining energized lines clearly demarcated and protected. The Contractor is responsible for establishing temporary power protected by ground fault circuit interrupters (GFCIs). In addition, the Contractor shall provide an adequate number of GFCI protected electrical power outlets and extension cords for dedicated use of the Environmental Consultant. At minimum, provide six power cords inside each containment and two outside each containment unless otherwise noted or agreed upon.
- D. The Contractor shall take all necessary precautions and modify work procedures to prevent hazardous materials spills or releases of any kind. The Contractor shall immediately extend the boundaries of the Regulated Work Area to incorporate the affected area if a spill or release occurs. The Contractor shall immediately contact the District and the Environmental Consultant.
- E. If at any time during the course of this project additional suspect hazardous materials are identified or different conditions are encountered by the Contractor, the Contractor shall immediately notify the District and Environmental Consultant in writing and request an investigation.
- F. Minimum respiratory protection for this project during all lead related activities shall be half-face air purifying respirators.
- G. The Contractor shall hold the District and its consultants harmless for claims, damages, losses, and expenses, including attorney’s fees arising out of the Contractor’s asbestos, lead, or other hazardous materials related work including releases from any incidental disturbance of existing hazardous materials, on-site or off site spills of hazardous materials, or from non-compliance with the Contract Documents and regulatory requirements

1.14 SECURITY

- A. The Contractor shall take all necessary security measures to prevent unauthorized personnel access to the Building(s), hazardous materials Work Area(s), and waste bin(s) storing hazardous waste for the duration of the project.
- B. The Contractor shall make all necessary arrangements for deactivation and re-activation of security alarms for work during off hours, weekends, and holiday in advance of scheduled work.

1.15 AUTHORITY TO STOP WORK

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- A. The District and/or the Environmental Consultant has the authority to stop work if it is determined that conditions or procedures are not in compliance with the specifications and/or applicable regulations; or the Contractor is deficient on submitting daily required paperwork; or the Contractor is impacting Facility and/or adjacent operations; or a potential release of lead, asbestos, or other hazardous material contamination outside the Work Area could occur; or if any other unsafe condition deemed to represent an immediate hazard to adjacent building occupants exists.

- B. The work stoppage shall remain in effect until conditions have been corrected and corrective measures have been taken to the satisfaction of the District and the Environmental Consultant. All standby time and testing costs required to correct the above mentioned problems shall be borne solely at the Contractor's expense.

PART 2 - PRODUCTS: NOT USED

PART 3 - EXECUTION: NOT USED

END OF SECTION

PRE-JOB SUBMITTAL CHECKLIST

Instructions:

Use of this check sheet is required but should be understood to be a brief listing of the major submittal items required. It is not intended to be a substitute for the detailed submittal requirements of the contract. The Contractor's submittal must comply with the requirements of Section 01 11 00 Article 1.06 and be in technical compliance with applicable technical specification sections and regulations.

I. DISTRICT INFORMATION

District Name: Pittsburg Unified School District
Address: 3200 Loveridge Road, Pittsburg, CA 94565
Point Of Contact: Keith Holtlander **Email Address:** kholtlander@pittsburg.k12.ca.us
Phone No.: (925) 473-2428 **Fax No.:** _____

Project Title: Window In-Kind Replacement at Highlands Elementary School

II. ENVIRONMENTAL CONSULTANT (EC) INFORMATION

Consultant Name: Sensible Environmental Solutions Inc.
Address: 1116 Willow Pass Court, Concord, CA 94520
Point Of Contact: Mitch Edwards **Email Address:** mitch@sensibleinc.net
Phone No.: (925) 689-9737 **Fax No.:** (925) 689-1420

III. CONTRACTOR INFORMATION

General Contractor Name: _____
Address: _____
Point Of Contact: _____ **Email Address:** _____
Phone No.: _____ **Fax No.:** _____

Haz. Mat. Contractor Name: _____
Address: _____
Point Of Contact: _____ **Email Address:** _____
Phone No.: _____ **Fax No.:** _____

IV. SUBMITTAL INFORMATION

District Submittal No.: _____ **SES Project No.:** 16-097
Date Received by EC: _____ **No. Copies Received:** _____
Date Reviewed by EC: _____ **Review Performed by:** _____
No. Copies of Submittal Distributed: _____ **Date Distributed:** _____

V. PRE-JOB SUBMITTALS –Refer to Section 01 11 00 Article 1.06 for detailed requirements:

Pre-job Submittals must be approved prior to the initiation of any hazardous materials related work including set-up operations. At minimum, ensure the following is submitted and complete.

Item Submitted	Required		Accepted			Review Comment
	Yes	No	Yes	No	N/A	
1. Licensing & Registration	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Notifications						
a. Cal/OSHA	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b. CDPH	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Resp. Protection Plan	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Detailed Work Plan						
a. Drawing	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b. Desc. of Reg. Area	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c. Desc. of removal methods, equipment & materials.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
d. Method of clean-up if unexpected spill or breakage.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. Detailed Schedule	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6. Secure Waste Storage	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7. Waste Disposal Info.						
a. Transporter Info.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b. Disposal Method/Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c. Treatment, Storage & Disposal Waste Site.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8. Rental Equip. Notifications	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9. Product Data.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Submittal Review No.: _____ **Review Date:** _____

This Submittal has been reviewed for conformance with the Contract Documents. **SES** has the following comments:

- Approved, No Exceptions**
- Approved as Noted Above**
- Rejected Completely. Revise & Resubmit**

Reviewed By: _____ **Signature:** _____

PRE-START SUBMITTAL CHECKLIST

Instructions:

Use of this check sheet is required but should be understood to be a brief listing of the major pre-start submittal items required. Pre-start Submittals must be approved at the site prior to the initiation of any hazardous materials related work. They may be submitted earlier but must be limited to documentation and certification for assigned workers and equipment. Do not submit extraneous information, but update later as needed for changes. The Contractor's submittal must comply with the requirements of Section 01 11 00 Article 1.06 and be in technical compliance with applicable technical specification sections and regulations.

I. DISTRICT INFORMATION

District Name: Pittsburg Unified School District
Address: 3200 Loveridge Road, Pittsburg, CA 94565
Point Of Contact: Keith Holtslander **Email Address:** kholtslander@pittsburg.k12.ca.us
Phone No.: (925) 473-2428 **Fax No.:** _____

Project Title: Window In-Kind Replacement at Highlands Elementary School

II. PRE-START SUBMITTALS - Reference 01 11 00 (1.06):

Item Submitted	Required		Accepted			Review Comment
	Yes	No	Yes	No	N/A	
1. Personnel Qualifications						
a. CDPH Lead Sup. & Workers Certs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b. EPA RRP Training Certs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c. Medical Exams	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
d. Blood Leads (<30 days)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
e. Resp. Fit Tests	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
f. Worker Ack. (App. C)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
g. Haz. Comm. Training	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Calibration Data (<6 Mos.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. HEPA Certifications	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

NOTE: After start up of hazardous material work, progress submittals including Daily, Inspection, and Weekly Submittals are required. Upon completion of all hazardous materials work, Close Out Submittals are required. Refer to Section 01 11 00 Article 1.06 for detailed information and requirements.

CERTIFICATE OF WORKER'S ACKNOWLEDGMENT

PROJECT NAME: Window In-Kind Replacement at Highlands ES **SES NO.:** 16-097

PROJECT ADDRESS: 4141 Harbor Street, Pittsburg, CA 94565

CONTRACTOR'S NAME: _____

WORKING WITH HAZARDOUS MATERIALS CAN BE DANGEROUS.

Your employer's contract with the Owner for the above project requires that: You will be supplied with the proper respirator and be trained in its use. You will be trained in safe work practices and in the use of the equipment found on the job. You will receive a medical examination. These things are to have been done at no cost to you.

RESPIRATORY PROTECTION: I have been trained in the proper use of respirators and informed of the type respirator to be used on the above referenced project. I have a copy of the written respiratory protection manual issued by my employer. I have been equipped at no cost with the respirator to be used on the above project.

TRAINING COURSE: I have completed a training course of not less than 4 days for the types of hazards I will be working with. I have been trained in the dangers inherent in handling hazardous materials and in proper work procedures and personal and area protective measures. The topics covered in the course included the following:

- Physical characteristics of hazards
- Associated Health hazards
- Respiratory protection
- Use of personal protective equipment
- Pressure Differential Systems
- Work practices including hands-on or on-the-job training
- Personal decontamination procedures
- Air monitoring, personal, and area

MEDICAL EXAMINATION: I have had a medical examination within the past 12 months in accordance with applicable regulations (asbestos, lead, mold, etc.), which was paid for by my employer. This examination included: health history, pulmonary function tests, and may have included an evaluation of a chest x-ray.

By signing this document, you are acknowledging only that the Owner of the building you are about to work in has advised you of your rights to training and protection relative to your employer, the Contractor.

Printed Name: _____

Signature: _____ **Date:** _____

Witness: _____

EMPLOYEE DAILY ROSTER**DATE:** _____ **SES PROJECT NUMBER:** 16-097**PROJECT TITLE:** Window In-Kind Replacement at Highlands Elementary School**CONTRACTOR:** _____**COMPETENT PERSON:** _____**IMPORTANT NOTE: ALL PERSONS ENTERING AND EXITING THE WORK AREA MUST SIGN IN AND OUT EVERY TIME.**

No.	PERSONS NAME (PRINT)	START TIME	STOP TIME
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
21.			
22.			
23.			
24.			
25.			
26.			
27.			

LEAD INSPECTION FORM

LOCATION OF ZONE / WORK AREA: _____

BUILDING NAME: _____

DISTRICT NAME: Pittsburg Unified School District **SES REF. NUMBER:** 16-097

PROJECT TITLE: Window In-Kind Replacement at Highlands Elementary School

DESCRIPTION OF LEAD WORK:

Room No.	Material Description	Quantity Removed	Abatement Method	Quantity Remaining

Legend: LBP – Lead-based Paint SF – Square Feet LF – Linear Feet

CONTRACTOR'S PRE-START VISUAL INSPECTION

CONTRACTOR hereby certifies that he has visually inspected the Work Area and has found it to be prepared in accordance with the Contract Documents and associated Regulations and is ready to start abatement operations.

NAME: _____ **INSPECTION DATE:** _____

SIGNATURE: _____ **CERTIFICATION #:** _____

CONTRACTOR'S FINAL VISUAL INSPECTION

CONTRACTOR hereby certifies that he has visually inspected the Work Area and has found no dust, debris or residue. This inspection included all surfaces including pipes, beams, ledges, walls, ceiling, floor, Decontamination Unit, sheet plastic, etc.

NAME: _____ **INSPECTION DATE:** _____

SIGNATURE: _____ **CERTIFICATION #:** _____

CONSULTANT PRE-START VISUAL INSPECTION

CONSULTANT hereby certifies that he has conducted a pre-abatement visual inspection of the referenced Work Area, and verifies that the Contractor has prepared the Work Area in accordance with the Contract Documents and is ready to start abatement operations.

NAME: _____ **INSPECTION DATE:** _____

SIGNATURE: _____ **CERTIFICATION #:** _____

CONSULTANT FINAL VISUAL INSPECTION

CONSULTANT hereby certifies that he has performed the final visual inspection of the referenced Work Area, and verifies that this inspection has been thorough and to the best of his knowledge and belief, the Contractor's Certification above is a true and honest one.

NAME: _____ **INSPECTION DATE:** _____

SIGNATURE: _____ **CERTIFICATION #:** _____

LEAD INSPECTION FORM

LOCATION OF ZONE / WORK AREA: _____

BUILDING NAME: _____

CLEARANCE DUST WIPE SAMPLING FOR LEAD

CONSULTANT hereby certifies that the results of dust wipe samples collected and analyzed in this work area meet the clearance criteria indicated below:

- Not Applicable – No Lead Related Work Completed Within The Area Of Work / Zone**
- Not Applicable – Cleared by Visual Inspection Only for the following Reasons:** _____
- 40 $\mu\text{g}/\text{ft}^2$ for Interior Floor Surfaces**
- 250 $\mu\text{g}/\text{ft}^2$ for Interior Horizontal Surfaces**
- 400 $\mu\text{g}/\text{ft}^2$ for Exterior Floor and Exterior Horizontal Surfaces**

SES Dust Wipe Sample Numbers: _____

NAME: _____ INSPECTION DATE: _____

SIGNATURE: _____ CERTIFICATION #: _____

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SECTION 02 83 00

LEAD-IMPACTED CONSTRUCTION AND ABATEMENT

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. This section specifies requirements for lead-impacted construction and lead hazard abatement including but not limited to:

1. Submittals
2. Contractor's Monitoring Program
3. Products
4. Abatement Execution including:
 - a. Work Area preparation
 - b. Worker protection and decontamination
 - c. Removal of Lead containing components
 - d. Removal of Stucco / Plaster with Lead-based paint
 - e. Removal of Lead containing coatings by chemical stripping
 - f. Removal of Lead containing coatings by mechanical removal
 - g. Drilling and Anchoring of Lead containing surfaces
 - h. LBP and Lead coating stabilization
 - i. Cleaning and decontamination
 - j. Clearance inspection testing
 - k. Waste characterization and disposal
5. Stop work orders
6. Project closeout

1.02 REGULATIONS

A. The Contractor shall comply with the requirements of the current issue of the following regulations and guidelines governing lead abatement and disposal and other applicable Federal, State, and Local Government regulations. The regulations listed herein are incorporated by reference.

1. Code of Federal Regulations (CFR):
 - a. 29 CFR 1926, Construction Standards

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- b. 29 CFR 1926.62, Lead in Construction
 - c. 40 CFR Part 50.12, Ambient Air Quality Standard for Lead
 - d. 40 CFR Parts 261, 265 and 268, Hazardous Waste Management
 - e. 40 CFR Part 745 Lead; Renovation, Repair, and Painting Program
 - f. 49 CFR Part 172, 173, 178, 179, Hazardous Material Transportation
2. California Code of Regulations:
- a. 8 CCR Division 1, Chapter 4, Subchapter 4, Construction Safety Orders
 - b. 8 CCR 1532.1, Lead in Construction
 - c. 8 CCR 5144, Respiratory Protection
 - d. 26 CCR Division 22, Hazardous Waste
 - e. 17 CCR Division 1, Chapter 8, Accreditation, Certification and Work Practices for Lead-based Paint and Lead Hazards.
3. Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing, Prepared for U.S. Department of Housing and Urban Development (HUD) by the National Center for Lead-Safe Housing, June 1995.

1.03 RELATED DOCUMENTS

- A. Contract Documents including hazardous material-related plans and specifications and all other project construction documents. Refer to Section 01 11 00 Summary of Hazardous Materials Work, Article 1.04 Related Documents for a more detailed listing.

1.04 DEFINITIONS

- A. In addition to the definitions in Section 01 11 00 Summary of Hazardous Materials Work, the following definitions are specific to work of this section:
 - 1. Abatement – Any set of measures designed to reduce or eliminate lead hazards or lead-based paint but does not include containment or cleaning.
 - 2. Certified Lead Inspector / Assessor – An individual who has received a certificate or an interim certificate from the Department as a “Certified Lead Inspector / Assessor”.
 - 3. Certified Lead Project Designer – An individual who has received a certificate from the Department as a “Certified Lead Project Designer”.

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4. Certified Lead Project Monitor – An individual who has received a certificate or an interim certificate from the Department as a “Certified Lead Project Monitor”.
5. Certified Lead Sampling Technician – An individual who has received a certified or an interim certificate from the Department as a “Certified Lead Sampling Technician”.
6. Certified Lead Supervisor – An individual who is responsible for implementing lead-related construction work and enforcing work practices that ensure worker safety in residential or public buildings and who has received a certificate or an interim certificate from the Department as a “Certified Lead Supervisor”.
7. Certified Lead Worker -- An individual who performs lead-related construction work in residential or public buildings under the direction of a certified lead supervisor and has received a certificate from the Department as a “Certified Lead Worker”.
8. Certificate – “Certificate” means the document issued by the Department to an individual who meets the requirements for certification as described in sections 35083, 35085, 35087, 35089, or 35091 of Title 17.
9. Certified Industrial Hygienist – An individual who has met the education, experience, and examination requirements of an industrial hygiene certification organization governed by the American Board of Industrial Hygiene.
10. Clearance Inspection -- “Clearance Inspection” means an on-site limited investigation, as described in Chapter 15: Clearance sections II-VI, “Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing,” U.S. Department of Housing and Urban Development, June 1995.
11. Component – A structural element or fixture, including but not limited to a wall, floor, ceiling, door, window, molding, trim, trestle, tank, stair, railing, cabinet, gutter, or downspout.
12. Containment – A system, process, or barrier used to contain lead hazards inside a work area such as described in “Guidelines for the Evaluation and Control of Lead-based Paint Hazards in Housing,” U.S. Department of Housing and Urban Development, June 1995, Chapter 8, “Containment and Barrier Systems,” Table 8.1, Table 8.2 and Table 8.3, or “Guide for Containing Surface Preparation Debris Generated During Paint Removal Operations,” Society for Protective Coatings, Technology Guide 6, October 1, 2004.
13. Department – The California Department of Public Health (CDPH).
14. Deteriorated Paint – Paint or surface coating that is cracking, chalking, flaking, chipping, peeling, non-intact, failed or otherwise separating from a component.
15. Encapsulation – All herein specified procedures necessary to coat or seal Lead containing coatings/surfaces with some durable coating which is applied as a liquid

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to the painted surface. Lead-free paint is not to be considered as an encapsulant. The encapsulating material shall be airtight, impermeable, and provide a semi-permanent barrier that can be expected to last 20 years. The encapsulant shall be approved for use by the District and Environmental Consultant.

16. Enclosure -- Accomplished by enclosing the Lead containing surface with a rigid and durable substance such as drywall, paneling, metal, vinyl or wood siding, or some other construction material. The enclosure must be dust-tight or sealed at all edges to provide a dust-tight enclosure. The construction materials used shall be approved for use by the District and Environmental Consultant.
17. Hazardous Waste – Lead debris shall be classified as hazardous due to the characteristic of toxicity, as determined by testing in accordance with the California Code of Regulations, Title 22, Division 4, Chapter 30, Article 11. Any substance(s) listed in Article 11 Section 66699 at concentrations greater than their listed Soluble Threshold Limit Concentration (STLC) or Total Threshold Limit Concentration (TTLC) may need to be further characterized by the Toxicity Characteristic Leaching Procedure (TCLP) in accordance with 40 CFR 261 and other tests prior to disposal as a hazardous waste. Note: whole painted components or architectural debris with intact LBP is not typically expected to exceed hazardous waste criteria and may be evaluated by a consideration of the ratio of all materials in the waste to the lead content of the associated paint.
18. Industrial Building – A structure that is used primarily for industrial activity, which is generally not open to the public, including but not limited to, warehouses, factories, and storage facilities. Industrial building does not include any structure which fits the definition of a public building or a residential building.
19. Intact LBP Components – LBP components removed substantially intact with LBP firmly adhering to the surface. Examples are door, door trim, baseboards, etc., with intact paint. Also referred to as architectural debris with intact paint.
20. Job Tasks – “Job Tasks” mean the specific activities performed in the context of work.
21. Lead Activities – “Lead Activities” means abatement, lead hazard evaluation, lead-related construction work, or any activity which disturbs lead-based paint, presumed lead-based paint, or creates a lead hazard.
22. Lead-Based Paint (LBP) – The concentration of lead in paint or other surface coatings that contain an amount of lead equal to, or in excess of 0.5% lead by weight when analyzed by AAS or ICP-AES or 1.0 milligrams of lead per square centimeter (mg/cm^2) as determined by XRF testing or as identified by specification.
23. Lead-Based Paint Related Waste – Paint chips, vacuum dust, and debris, used cleaning articles, waste water, plastic sheets and other disposable items which were used during the Lead abatement process and as a result are considered lead contaminated waste or assumed hazardous waste pending further characterization.

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24. Lead-Containing Paint/Surface Coatings – The concentration of lead in paint or other surface coating that contain an amount of lead less than 0.5% lead by weight when analyzed by AAS or ICP-AES or 1.0 mg/cm² as determined by XRF testing or as identified by specification.
25. Lead-Contaminated Dust – The amount of lead equal to, or in excess of 40 micrograms per square foot (µg/ft²) for interior floor surfaces, 250 µg/ft² for interior horizontal surfaces or 400 µg/ft² for exterior floor and exterior horizontal surfaces.
26. Lead-Contaminated Soil – Bare soil that contains an amount of lead equal to, or in excess of 400 parts per million (ppm) in children’s play areas and 1,000 ppm in all other areas.
27. Lead Hazard – Deteriorated lead-based paint or lead-containing surface/coating material, lead contaminated dust, lead contaminated soil, disturbing lead-based paint or lead-containing surfaces/coating materials or presumed lead-containing surfaces without containment, or any other nuisance which may result in persistent and quantifiable lead exposure and environmental lead contamination.
28. Lead Hazard Abatement – Special abatement activities undertaken with the specific intent to eliminate or reduce existing lead hazards as defined herein. Not to be confused with abatement controls on normal lead-related construction work in construction areas with restricted access to the general public. In this latter case, lead is present in or on construction materials and is impacted by the work but is not the focus of the work to be undertaken.
29. Lead Hazard Evaluation – The on-site investigation, for compensation, of lead-based paint or lead hazards for public and residential buildings, but does not include activities intended to determine adequacy of containment; air monitoring for lead as specified in Title 8, California Code of Regulations, Section 1532.1 and Title 17, California Code of Regulations, Sections 70100 and 70200; and testing components removed from a residential or public building for lead to determine the applicability of hazardous waste requirements specified in Title 22, California Code of Regulations, Division 4.5, Chapters 10, 11, 12, 13 and 18, and California Health and Safety Code, Section 25163, subdivision (c).
30. Lead Inspection – A surface by surface investigation to determine the presence of lead-based paint as described in Chapter 7: Lead-based Paint Inspection, “Guidelines for the Evaluation and Control of Lead-based Paint Hazards in Housing,” U.S. Department of Housing and Urban Development, 1997 Revision.
31. Lead-Related Construction Work – Any construction, alteration, painting, demolition, salvage, renovation, repair, or maintenance of any residential or public building, including preparation and cleanup that, by using or disturbing lead-containing materials, surfaces or soil, may result in significant exposure of adults or children to lead.
32. Lead Safe Work Practices – Any individual conducting lead activities, excluding lead

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hazard evaluation shall use containment; ensure that the work area has no visible dust or debris following the completion of a project; and demonstrate compliance of the above requirements to the Department or local enforcement agency, as defined in Section 105251 of the Health and Safety Code, upon request.

33. Lead Stabilization – Process of controlled surface preparation using containment and wet methods and/or HEPA vacuuming to prepare a deteriorated LBP surface for painting and followed by application of approved primer and finish coats of paint. Process may be incorporated in a normal painting process for environmental protection.
34. Presumed Lead-Based Paint – Any paint or surface coating affixed to a component in or on a structure, excluding paint or surface coating affixed to a component in or on a residential dwelling constructed on or after January 1, 1978 or a school constructed on or after January 1, 1993.
35. Public Building – A structure or part of a structure, and its land, which is generally accessible to the public, including but not limited to schools, daycare centers, museums, airports, hospitals, stores, convention centers, government facilities, office buildings and any other building which is not an industrial building or a residential building.
36. Qualified Person – The individual identified by the Contractor to be responsible for conducting air sampling, calibration of air sampling pumps, evaluating sampling results, and conducting respirator fit tests.
37. Removal – All herein specified procedures necessary to remove and clean-up all LBP and lead-containing surface coatings, lead-contaminated dust, and lead-contaminated soil from the designated areas and to dispose of these materials at an acceptable site in accordance with Federal, State and Local Regulations.
38. Residential Building – A structure or part of a structure, and its land, which is used or occupied, or intended to be used or occupied, in whole or in part, as the home or residence of one or more persons.
39. Visually Clean – Free of visible dust, paint chips, dirt, debris, or films removable by vacuuming or wet cleaning methods specified. For outside soil or ground cover areas, visually clean shall mean free of construction or paint debris, chips or dust distinguishable from the initial soil or ground conditions.
40. Work Area – An area where lead activities are conducted.

1.05 HAZARD COMMUNICATION

- A. The Contractor shall refer to Specification Section 00 31 26 – Existing Hazardous Materials Conditions for a list of all known or assumed hazardous materials including lead, asbestos, PCBs and other materials. All lead-related work shall be conducted with

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full consideration of any other hazardous materials impacted and required protective measures and controls.

1.06 SUBMITTALS AND NOTICES

- A. Refer to Section 01 11 00 Summary of Hazardous Materials Work for submittal requirements applicable to this Section unless otherwise noted.

1.07 ENVIRONMENTAL CONSULTANT

- A. The Environmental Consultant is authorized to provide compliance observation and monitoring, testing, and technical oversight services for the lead-impacted construction and abatement work of this project without limitation.

1.08 CONTRACTOR'S COMPLIANCE AND QUALITY ASSURANCE

- A. The Contractor shall have a Competent Person who is a Department Certified Lead Supervisor onsite at all times while lead-related work or Lead/LBP abatement is in progress. The Contractor's Competent Person shall communicate and coordinate with the Environmental Consultant with regard to work schedules, inspections, daily submittals, and compliance issues.
- B. The Contractor's Competent Person shall:
 - 1. Ensure the Contractor's compliance with the plans and specifications.
 - 2. Conduct worker exposure monitoring using a Qualified Person and provide results to the Environmental Consultant.
 - 3. Pre-inspect Work Areas for compliance and completion prior to notifying the Environmental Consultant of the Work Area's readiness for inspection.
 - 4. Accompany the Environmental Consultant during Work Area pre-start and clearance inspections.
 - 5. Ensure all of the Contractor's workers have current and valid medical, blood-lead test, training, and respirator fit test records and provide copies of all new or updated records to the Environmental Consultant for approval before assigning the workers to any work within Work Areas.
 - 6. Take timely and appropriate corrective actions to ensure compliance with the abatement plans and specifications and to eliminate unsafe, unhealthful, and environmentally unsound work practices regardless of whether or not they are brought to the Contractor's attention by the Environmental Consultant.
 - 7. Adhere by the results for the characterization of waste for proper packaging, labeling, storage, transportation and disposal of waste.

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8. Provide completed daily project documentation to the Environmental Consultant at the end of each work day. This includes daily rosters, entry/exit logs, foreman reports, and any other project information.

1.09 SPECIAL PROVISIONS

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- A. The Contractor shall hold the District, District's Representatives, Agents and Environmental Consultant harmless for claims, damages, losses, and expenses, including attorney's fees, arising out of or resulting from the Contractor's lead or other hazardous materials work, lead and hazardous materials spills on the site or enroute to the disposal site, or any other condition resulting from the Contractor's non-compliance with regulation or the Contract Documents

PART 2 - PRODUCTS

2.01 PROTECTIVE COVERING

- A. Polyethylene sheets, of 6 mil thickness in size (dimensions) to minimize the frequency of joints.

2.02 CLEANERS

- A. For clean-up and decontamination, a lead-specific wash solution shall be used. Alternative cleaning and decontamination agents shall be subject to approval by the Environmental Consultant and District.

2.03 TAPE

- A. Duct tape (or approved equivalent) two (2) inches or wider, capable of sealing joints of adjacent sheets of polyethylene sheeting and for attachment of polyethylene sheeting to finished or unfinished surfaces of dissimilar materials and capable of adhering under both dry and wet conditions.

2.04 PRIMER/SEALER

- A. The primer/sealer paint applied after Lead removal and/or stabilization shall be compatible with the painting systems to follow under this contract.

2.05 SPRAY ADHESIVE

- A. Provide spray adhesive in aerosol cans which is specifically formulated to stick to sheet polyethylene.

2.06 DISPOSAL CONTAINERS

- A. Provide six (6) mil thick polyethylene sheeting, six (6) mil leak-tight polyethylene bags and other impervious containers as required by applicable regulations. All waste shall be labeled as hazardous or potentially hazardous waste unless proven otherwise by appropriate sampling and laboratory analysis.

- B. All hazardous waste shipping containers shall meet applicable DOT requirements.

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2.07 WARNING SIGNS AND LABELS

- A. Caution Signs: To be minimum of 20 x 14 inches and includes phrase "**Caution Lead Hazard, Keep Out Unless Authorized**" in minimum 2-inch high letters. These shall be posted at each approach to each lead Work Area.
- B. CAL/OSHA Lead Warning Posters: "**Warning - Lead Work Area, Poison, No Smoking or Eating**" shall be posted at the entrance to each Work Area.
- C. Labels: Hazardous waste shall be labeled according to Federal, State and Local regulations including but not limited to the California Code of Regulations, Title 22, Chapter 30 and the U.S. Department of Transportation 49 CFR Parts 172, 173, 178 and 179.

2.08 PERSONAL PROTECTIVE EQUIPMENT

- A. Personal protective equipment shall comply with the requirements of 8 CCR 1532.1 Lead.
- B. Minimum protective clothing and equipment shall consist of fire-retardant, disposable, full-body coveralls, disposable boots, gloves, or equivalent in accordance with ANSI Z41. Sleeves at wrists and cuffs at ankles shall be secure.
- C. Eye protection and hard hats shall be available and worn as required by applicable safety regulations and shall conform to ANSI 87.1 and ANSI 89.1. Eye protection shall be worn during demolition and paint removal work. Hard hats shall be worn during all exterior demolition work.
- D. The Contractor shall provide Authorized Visitors with suitable disposable protective clothing, headgear, respirators, and footwear whenever authorized visitors are required to enter the Work Area. Up to an average of ten sets per day of suitable personal protective equipment shall be made available for authorized visitors.
- E. All disposable clothing worn during each work shift shall be removed prior to exiting the Work Area and shall be properly segregated and placed in containers for proper waste characterization. The Contractor shall bear full responsibility for additional costs associated with waste profiling and disposal if wastes are not properly segregated.

2.09 RESPIRATORS

- A. Provide workers with personally-issued respiratory equipment approved by NIOSH and suitable for the lead exposure level in the Work Area. Where respirators with disposable filters are employed, provide sufficient filters for replacement as required by the worker or applicable regulation. HEPA Type P100 cartridges shall be used with respirators. Each respirator shall be washed whenever the worker wearing it showers or at least daily prior to storage. The following general conditions shall apply to respirator use:

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1. All respirators used must be certified by NIOSH and a respirator program shall be established and implemented.
2. The minimum respiratory protection required for this project, unless otherwise specified in writing by the Environmental Consultant shall be a half- face negative pressure air purifying respirator. Otherwise, the respirators worn shall be selected based on measured or reasonably expected airborne concentrations of lead as follows:
 - a. Half-face negative pressure air purifying respirator: up to 0.5 mg/m³
 - b. Powered air purifying respirator: up to 2.5 mg/m³
 - c. Type C supplied air respirator full face piece pressure demand mode: up to 100 mg/m³.

Note: Disposable respirators are not acceptable at any time. It is always permissible to upgrade to a more protective type of respirator.

3. During all segments of lead removal and clean-up activities, respirator usage shall be required of all persons within the designated Work Areas at all times regardless of airborne lead concentrations.
- B. The Contractor is responsible for determination of airborne lead concentration levels for the Contractor's personnel and for providing and enforcing use of appropriate personnel respirator protection based upon airborne lead concentrations and this specification.
- C. Respirators shall not be removed inside the Work Area. Workers shall proceed to the designated washing area and clean the external surface of the respirator body before removing the respirator.

2.10 TOOLS AND EQUIPMENT

- A. Provide suitable tools for the removal of Lead containing materials and contamination including required HEPA negative pressure units, HEPA vacuums, ground fault interrupters (GFIs), ladders, scaffold, garden sprayers and airless sprayers. All tools and equipment brought onsite shall be clean and free of lead and other hazardous material contaminants. HEPA vacuums shall be labeled with a lead warning label and dedicated to Lead-related construction work to prevent commingling of lead wastes with asbestos and other wastes.
- B. Provide enough support equipment, including but not limited to, lumber, nails, hardware, shower stalls, hoses, plumbing, drain pans, sump pumps, and waste water storage drums to construct and operate the Decontamination Enclosure System(s) with showers. The number of showers shall be sufficient for the number of workmen scheduled on the job. The water hose used to connect the drain to the showers will not

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be used for any other purpose. The supply side water hose shall have a check valve to prevent backflow under any circumstance.

PART 3 - EXECUTION

3.01 GENERAL

- A. All designated lead related work shall be conducted in accordance with this specification section, section 01 11 00 and the project drawings. In addition, refer to Section 0031 26 and coordinate lead-related work with requirement for other hazardous materials as applicable. The Contractor shall utilize the requirements as set forth for the method chosen and approved.
- B. Public Warning and Safety Information to be Posted:
 - 1. Post signs at all approaches to the Work Area entrance to read "Caution Lead Hazard - Keep Out Unless Authorized." In addition, post the CAL-OSHA Lead Hazard Warning Poster at the immediate Work Area entrance.
 - 2. A list of phone numbers for the local hospital and for emergency squad, the local fire department, a representative of the Contractor who may be reached 24 hours a day, the Contractor's main office, the District's Representative and Environmental Consultant and any other professional consultants directly involved in the project.

3.02 PREPARATION FOR INTERIOR REMOVAL/ABATEMENT WORK

- A. Shut down electric power to the Work Area to the greatest extent possible. Consult with the District and District's Representative before shutting down power. Provide temporary power and lighting and ensure safe installation of temporary power sources and equipment per applicable electrical code requirements and provide ground-fault interrupter circuits as power source for electrical equipment.
- B. Shut down and isolate heating, cooling, ventilation air systems to prevent contamination and dispersal to other areas of the structure. If shut down is not feasible, duct capping and sealing will be required according to an approved plan. During the Work, vents within the Work Area shall be sealed with tape and plastic sheeting and as indicated on plans (if available).
- C. Move all non-fixed objects out of the Work Area(s). Such items shall be moved at least five (5) feet from Work Area(s).
- D. Pre-clean entire floor area and all horizontal surfaces inside and within five (5) feet of the Work Area using HEPA vacuums and wet methods.
- E. Cover all non-moveable objects within five (5) feet of the Work Area with six (6) mil polyethylene sheeting and seal with duct tape.
- F. Cover all floors within the Work Area with two layers of six (6) mil polyethylene sheeting

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and seal with duct tape. All heater vents and registers shall be sealed with six (6) mil plastic sheeting and duct tape.

- G. Install air lock flaps on all doorways into Work Area with plastic sheeting to form curtained doorways. Doors secured from the inside need not be sealed.
- H. Provide, at minimum, 30 foot candle illumination lighting to the Work Area.
- I. Install a Decontamination Enclosure System or equivalent prefabricated portable decontamination unit(s) as approved. This system will be the primary entrance and exit to the Work Area.
- J. Install Differential Pressure Equipment where specified in accordance with the requirements herein.
- K. Install lead caution signage at each approach to the Work Area and lead warning signage just outside each Work Area entry/exit point.
- L. Complete any additional preparation work required by the specific component abatement/lead-related construction work requirements specified elsewhere in this section.
- M. Establish and maintain emergency and fire exits from Work Areas at all times.
- N. When Work Area preparation is complete, notify the Environmental Consultant and request an inspection. No abatement/lead-related construction work is to proceed in any Work Area until that Work Area preparation has been inspected and approved by the Environmental Consultant.

3.03 PREPARATION FOR EXTERIOR REMOVAL/ABATEMENT WORK

- A. Cordon off the Work Area extending at a minimum of 10 feet horizontally beyond the area of work with barrier tape and warning signs as specified herein.
- B. Pre-clean visible suspect lead-based paint dust and debris around and under areas where lead-based paint or LBP components will be removed. Use HEPA vacuums and wet methods to perform this cleaning which shall include, at minimum, the designated Work Area.
- C. Cover ground and horizontal surfaces of Work Area (area within barrier tape) with a minimum of one layer of six (6) mil polyethylene sheeting. Secure the plastic on the building foundation as possible. Horizontal surfaces include scaffolding and/or other work platforms. Extend the plastic from the foundation to 10 feet beyond the Work Area. Seal all seams with tape and secure plastic to prevent undesired movement.
- D. Where elevated Lead-containing components are likely to generate airborne dust or paint chips, devise a suitable containment to control such dust and prevent dispersal by

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wind. Exterior removal which generates Lead dust and debris shall not be attempted when winds or air currents (i.e., greater than 15 mph) prevent containment of such waste material within the designated Work Area. To conduct exterior removal under windy conditions, the Contractor shall implement special, safe and effective countermeasures to ensure containment of Lead dust and debris. These countermeasures include but are not limited to protective shrouds or mini-containments on work platforms.

- E. Provide a designated entry/exit point to exterior Work Areas suitable for workers to properly decontaminate and exit from the Work Area as specified herein. Install lead caution and warning signage as specified above.
- F. Complete any additional preparation work required for the specific abatement method to be used.
- G. Notify the Environmental Consultant when the Work Area is ready for inspection. Abatement and lead-related work shall not proceed until the Environmental Consultant has checked and approved Work Area preparations.

3.04 WORKER PROTECTION AND DECONTAMINATION PROCEDURES

- A. The Contractor shall use only workers medically qualified and trained for lead work and respirator usage.
 - 1. Medically-qualified shall mean that the worker has had an occupational medical exam for lead exposure and respirator usage within 12 months of abatement start-up and at any time during abatement or lead-related construction work. The contents of the medical exam must be in conformance with 8 CCR 1532.1 and must include a blood-lead test within 30 days of starting work on the project. At no time shall the abatement worker exceed six months between each blood-lead testing.
 - 2. Each lead worker shall have successfully completed at least 24 hours of formal documented training in lead hazards and lead abatement methods and be a current CDPH Certified Lead Worker. Non-abatement workers performing lead related construction work shall have documented lead hazard communication training in accordance with 8 CCR 1532.1.
 - 3. The Contractor's Competent Person shall have received at least 40 hours of formal training in lead hazards and lead abatement.
 - 4. The Contractor's Supervisor(s) and workers shall be certified through the CDPH lead accreditation program for lead-related construction. Copies of each employee's certification shall be provided.
 - 5. The Contractor shall ensure that no worker is allowed onsite to perform lead-related work until the Environmental Consultant has received and approved all of that worker's medical, training and fit testing certifications.

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- B. Each worker and Authorized Visitor shall, upon entering the job site, enter the designated clean change room and remove street clothes, put on an inner reusable or disposable coverall and work shoes and then put on an outer set of full body disposable coveralls, booties or shoe covers, respirator with HEPA filters, and gloves before entering the Work Area.
- C. Each worker and Authorized Visitor shall HEPA vacuum contamination from protective clothing and then remove shoe covers before leaving one Work Area for another Work Area inside the same Work Area unless the Work Areas have been interconnected with a secured plastic sheet at least three feet wide.
- D. When exiting an interior or exterior Work Area and leaving the specific building worked on, proceed to the designated area for unsuiting and remove outer protective clothing and equipment. Dispose of outer protective clothing as suspect Lead waste. Proceed to a designated shower area, remove and clean the respirator and store in a clean container. Wash hands and face and proceed to clean change area to re-suit for the next area.
- E. At the end of the work day, all workers are to do the following in addition to those procedures described above: Place disposable outer garments and shoe covers in separate labeled waste containers dedicated to PPE for proper waste characterization; place reusable clothing for laundering in a closed container, clean protective gear including respirator, shower or wash hands and face at minimum, and put on clean street clothes in the clean room area.
- F. All tools and equipment shall be decontaminated by HEPA vacuuming and wet wiping prior to being taken out of the Work Area. Tools and equipment with inaccessible internals shall be externally wet-wiped, bagged and sealed prior to being removed from the Work Area.
- G. Workers shall not eat, drink, smoke, or chew gum or tobacco at the work site within 20 feet of any Work Area as specified by the Environmental Consultant.
- H. Provide and post the decontamination and work procedures to be followed by workers in the equipment area and in the clean area.
- I. Each worker shall have a final medical blood-lead laboratory test within one week of job completion and before engaging in other lead related work.

3.05 REMOVAL OF LEAD CONTAINING COMPONENTS

- A. Remove any associated non-Lead containing hardware or construction interference (electrical and telephone utilities, conduit, piping, etc.) as required and store in construction area until final disposition is determined by the District's Representative.
- B. Remove Lead containing components as specified herein and by the Contract Drawings. Scrape painted seam at edge of each component with utility knife or blade

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tool and remove any exposed accessible fasteners. Spray the affected surfaces of the Lead containing component being removed lightly with a fine mist of amended water.

- C. Special precautionary controls shall be used as necessary to prevent Lead dust or debris from being carried or blown out of the controlled area by wind or air currents.
- D. Using appropriate tools, begin to remove the Lead containing component by prying first behind nailing locations and/or removing accessible fasteners. Continue prying up the Lead containing component being careful not to break or create chipping until the Lead containing component is completely removed. Take necessary precautions to avoid damage to adjoining walls and/or associated surfaces.
- E. Each component shall be carefully lowered to the ground, not dropped or thrown. Clean up dust and debris as removal proceeds.
- F. Once removed, remove or flatten any remaining fasteners and wrap the Lead containing component in six (6) mil polyethylene sheeting, seal with duct tape, wet-wipe and transfer to secure waste storage for waste characterization.
- G. HEPA vacuums and wet-wiping shall be used to ensure any resulting Lead dust, paint chips or debris have been cleaned up from horizontal surfaces and polyethylene sheeting prior to moving ladders, scaffolding, man-lifts or other working platforms to the next Work Area to be abated.

3.06 REMOVAL OF WALL AND CEILING STUCCO / PLASTER WITH LEAD-BASED PAINT

- A. Removal of stucco / plaster at walls and ceilings with lead-based paint shall be conducted within negative pressure enclosures and shall be coordinated with other removal work specified elsewhere to prevent the waste material from becoming commingled with other wastes that may be produced.
- B. Continuously mist the stucco / plaster walls and ceilings with lead-based paint being removed with amended water. There shall be a dedicated person applying mist at each point of removal. Clean up any standing water immediately.
- C. Place removed stucco / plaster walls and ceilings with lead-based paint in impervious containers as they are removed. Complete Work Area clean-up when the plaster walls and ceilings with lead-based paint are completely removed or at the end of the shift, whichever comes first.
- D. When applicable, separate metal lath and black iron from stucco / plaster walls and ceilings with lead-based paint. Metal that can not be properly decontaminated shall be packaged appropriately and disposed of as lead waste. Metal that can be properly decontaminated shall be cleaned and removed from the work area and disposed of as general construction debris or recycled.

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- E. All removed stucco / plaster debris with lead-based paint, contaminated metal, and associated debris shall be packaged, sealed with duct tape, wet-wiped and transferred to secure waste storage for waste characterization.

3.07 REMOVAL OF LEAD CONTAINING SURFACES BY CHEMICAL REMOVAL

- A. Removal of Lead containing surfaces shall be by a Chemical Removal System approved for use by the Environmental Consultant.
- B. The Contractor shall provide additional security measures as necessary to ensure non-abatement workers cannot gain access to chemicals and chemically-treated surfaces.
- C. Material safety data sheets for each chemical substance and product used shall be onsite at all times and available for review by workers and Environmental Consultant.
- D. The Competent Person shall review the contents of the material safety data sheets and the safe removal procedures with the workers prior to chemical removal.
- E. Workers shall wear chemical goggles, face shields, impervious gloves, aprons, and booties over the standard protective clothing prior to starting chemical removal.
- F. Stage or install a temporary emergency eyewash capable of providing a 15-minute flush within the immediate Work Area if corrosive organic or corrosive inorganic paint removal (stripping) products are used. In addition, a shower shall be available onsite within 50 feet of the removal operation.
- G. Chemical stripping agents (and neutralizers) shall be applied in accordance with the recommendations of the manufacturer. Remove all paint and/or glazing compounds down to the bare substrate. Ensure that the chemicals used, and the associated removal methods leave a clean and smooth surface capable of accepting a suitable primer/sealer coating after final cleaning.
- H. Containerize all paint and chemical waste in impervious containers labeled as hazardous waste.
- I. Package all contaminated rags and protective equipment, and disposable cleaning items and plastic sheets in labeled impervious containers and transfer waste containers to secure waste storage units. The Contractor shall assume all such waste to be hazardous unless proven otherwise by objective waste characterization data.
- J. Clean and decontaminate the Work Area in accordance with the procedures outlined herein.
- K. Decontaminate all tools and equipment before removing them from the Work Area. Seal or bag up such equipment for transfer to the next Work Area or operation.

3.08 REMOVAL OF LEAD CONTAINING SURFACES BY MECHANICAL REMOVAL

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- A. Removal of lead containing surfaces by mechanical removal shall be performed within negative pressure enclosures.
- B. All mechanical removal equipment and systems shall be approved by the Environmental Consultant. Such equipment includes but is not limited to needle guns, abrasive wheels, and roto-peen equipment.
- C. All power tools shall be designed and equipped with HEPA-filtered exhaust systems.
- D. The Contractor shall submit a separate workplan for containment of fugitive dust and debris emissions.
- E. Work Area preparation and Lead coating removal shall be in accordance with approved work plan.

3.09 DRILLING/ANCHORING/CUTTING/ABRADING LEAD CONTAINING SURFACES

- A. Prepare the Work Area as specified herein for lead abatement.
- B. Remove all interfering structures (security bars, etc.) and store for replacement when work is complete.
- C. Where installation of materials requires drilling, cutting, anchoring or abrading the Lead containing surfaces, the Contractor shall take additional appropriate precautions including, but not limited to, use of protective drop cloths, clean-up and decontamination of Lead dust and debris as specified herein.
- D. Place plastic drop sheet below area of impaction.
- E. Lightly moisten lead containing surface to be impacted.
- F. Conduct impaction operations (i.e. drilling, anchoring, abrading, etc.)
- G. Continue misting lead containing surface during impaction to control airborne dust.
- H. HEPA vacuum and wet-wipe frequently to prevent accumulation and spread of lead-containing dust and debris.

3.10 LBP AND LEAD GLAZING STABILIZATION

- A. Prepare the Work Area as specified herein for lead abatement.
- B. Remove all interfering structures (security bars, etc.) and store for replacement when stabilization work is complete.
- C. Surface Preparation - Remove all loose, flaking, peeling and/or deteriorated paint and/or

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glazing compounds using wet methods and prepare the surface within the work area as follows:

1. Lightly moisten exposed Lead containing surfaces to be prepared;
2. Wet-scrape and/or wet-sand surfaces as necessary to remove all loose and deteriorated paint or glazing compounds to obtain a like new surface with any remaining coating soundly bonded to the substrate;
3. Periodically re-moisten as necessary to control airborne dust;
4. HEPA vacuum and wet-wipe frequently to prevent accumulation and spread of lead-containing dust and debris;
5. Promptly dispose of all spent cleaning materials in labeled impervious containers;
6. Surface preparation is complete when the surface is sound, smooth, clean and can be painted to provide a like new surface.

D. Surface Preparation Clean-up

1. Upon completion of surface preparation, wet-scraping, and/or wet sanding, clean and decontaminate the entire Work Area using procedures outlined herein;
2. Decontaminate all tools and equipment before removing them from the Work Area. Seal or bag up such equipment for transfer to the next Work Area or operation;
3. Visually inspect prepared surfaces and the cleaned Work Area prior to applying any paints or coatings to ensure all loose paint, dust and debris has been cleaned up and the surface is properly prepared for painting.

E. Painting - Apply primer and finish coats of paint to obtain a like new surface in accordance with the manufacturer's specifications and requirements of the contract.

F. Conduct preliminary cleaning and decontamination of the entire Work Area and notify the Environmental Consultant to arrange for a preliminary visual clearance inspection. The Work Area containments shall not be removed until the Contractor has been notified by the Environmental Consultant of a satisfactory preliminary visual inspection result.

G. Remove containments and conduct final cleaning and decontamination of entire Work Area. Notify Consultant at least 24 hours in advance to arrange for final clearance inspection and testing. A mutually agreeable date and time shall be established by the Environmental Consultant, District and the Contractor for clearance inspections.

3.11 CLEANING AND DECONTAMINATION OF WORK AREAS

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- A. Daily Clean-up: Perform the following clean-up procedures daily.
1. Clean Work Areas until they are free of loose dust and debris to the satisfaction of the Environmental Consultant and/or District using HEPA and/or wet-wiping after pick-up of large debris.
 2. Wet debris with a fine mist of water and collect material. All material to be properly segregated, bagged in 6-mil plastic bags, sealed, and moved to a designated, secure, waste storage area for waste characterization.

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3. At the end of each work day the Environmental Consultant and/or District and the Contractor's Competent Person shall inspect work performed that day to ensure the work has been completed and no dust or residue remains on the areas removed and/or in the Work Area.
- B. Final Clean-up and Decontamination: At completion of abatement perform cleaning as follows:
1. Remove all visible dust and debris as specified above.
 2. Clean all Work Areas where abatement was performed by vacuuming all surfaces with a HEPA vacuum followed by wet-wiping with a high phosphate (tri-sodium phosphate) wash. The Contractor shall spray surfaces with a 5-10 percent tri-sodium phosphate (or approved equivalent) cleaning solution applied with a garden sprayer and wipe or mop surfaces with frequently changed clean towels, rags or mops.
 3. Disassemble and remove containment barriers at each Work Area location after cleaning as specified above. Place polyethylene sheeting and tape into waste bags and remove to the temporary waste storage area.
 4. Remove six (6) mil polyethylene sheeting on immovable objects and floors (where present) after misting with a high phosphate wash and wet-wiping. Place polyethylene sheeting and waste rags in segregated six (6) mil plastic bags, seal and store in a designated, secure, waste storage area for waste characterization.
 5. Detergent solutions shall be replaced after each individual room is washed unless the spray application is used. If the wet vacuuming method is used, waste water shall be contained and disposed of properly after waste characterization testing.
 6. The cleaning procedure used shall prevent spread of contamination and effectively clean surfaces while producing minimal waste.
 7. All tools and equipment shall be sealed in six (6) mil plastic bags after being decontaminated using a high phosphate wash and wet-wiping prior exiting the Work Area.
 8. Liquid cleaning wastes shall be filtered prior to containerizing for temporary storage pending hazardous waste characterization. Filter systems shall be able to remove particulate two microns and larger in diameter. Permits, if required, are the responsibility of the Contractor.
 9. At least eight hours prior to completion and again upon completion of final clean-up and decontamination, notify the Environmental Consultant to obtain a final clearance inspection and testing.

3.12 FINAL CLEARANCE INSPECTION AND TESTING

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A. Interior Clearance Inspection and Testing.

1. After the final clean-up, the Contractor shall perform a complete visual inspection of the Work Area under adequate lighting to ensure the Work Area is free from visible debris, dust, waste bags, containers, and unnecessary equipment. The Contractor shall ensure that additional cleaning is completed if the area is not acceptably clean. The Contractor's request for inspection will be recognized upon receipt of a completed and signed copy of the Lead Inspection Form (Section 01 11 00 – Appendix F). No inspections will be conducted without a completed and signed copy of the Lead Inspection Form (Section 01 11 00 – Appendix F).
2. Upon receipt of the Lead Inspection Form (Section 01 11 00 – Appendix F), the Environmental Consultant will perform the final visual clearance inspection. The clearance inspection will at minimum consists of the requirements as described in Chapter 15: Clearance, Sections II-VI, “Guidelines for the Evaluation and Control of Lead-based Paint Hazards in Housing,” dated June 1995.
3. If the Work Area is not visibly clean, as determined by the Environmental Consultant, the Contractor shall re-clean and decontaminate as described herein at his own cost until the work area passes inspection.
4. A minimum of two hours is required between cessation of clean-up procedures and clearance dust wipe testing.
5. All clearance dust wipe samples will be taken using the HUD sampling protocol by the Environmental Consultant.
6. Dust wipe samples will be collected using commercial wipes moistened with a non-alcohol wetting agent. When possible, areas of approximately one square foot will be selected from horizontal surfaces below or adjacent to where LBP components were removed.
7. One dust wipe sample will be collected per abated area (doorway, utility room) and sent under proper chain of custody protocol to an accredited AIHA or EPA-CPL laboratory or equivalent as specified by the Environmental Consultant.
8. All dust wipe samples will be analyzed for lead using either AAS or ICP-AES for lead and results will be provided to the Contractor within two days of receipt of sample results.
9. The Contractor shall be released from each Work Area when all dust wipe samples from the area are below the following levels of lead:
 - a. Interior Floor Surfaces: 40 micrograms per square foot ($\mu\text{g}/\text{ft}^2$)
 - b. Interior Horizontal Surfaces: 250 $\mu\text{g}/\text{ft}^2$
 - c. Exterior Floor and Horizontal Surfaces: 400 $\mu\text{g}/\text{ft}^2$

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10. A Work Area shall be considered completed and cleared only after all areas within the Work Area have met the above criteria.
 11. If any of the dust wipe samples exceed the clearance criteria, the entire Work Area must be cleaned and retested until the clearance criteria are met. As the building may be occupied, the Contractor shall coordinate with the District and Environmental Consultant to gain access for cleaning and re-inspection and clearance testing by the Environmental Consultant at the earliest time possible.
 12. If a Work Area fails the clearance criteria specified above, the Contractor shall clean the entire Work Area at no additional cost nor increase to the contract sum and shall be responsible for associated additional Environmental Consultant fees. The Contractor shall pay all laboratory and delivery charges for additional dust wipe samples taken in each Work Area upon clearance failure.
- B. Exterior Clearance Inspection. After the final clean-up by the Contractor, the Environmental Consultant shall conduct a visual inspection to ensure that all visible dust and debris has been properly removed. The Contractor must provide the Environmental Consultant at least 8 hours notice prior to scheduling final inspections. If the results of the final visual inspection are satisfactory to the Environmental Consultant, clearance dust wipe samples may be collected from exterior floor and exterior horizontal surfaces. Upon obtaining acceptable clearance sample results, the exterior Work Area shall be released for unrestricted access. If the results of the inspection are unsatisfactory the contractor shall re-clean and decontaminate the Work Area prior to requesting another inspection by the Environmental Consultant.
- C. Upon acceptance of the final results for clearance dust wipe sampling, the Environmental Consultant shall complete the Lead Inspection Form (Section 01 11 00 – Appendix F) and submit this information to the District and retain the original.

3.13 RE-INSTALLATION ON INTERFERENCE COMPONENTS

- A. Upon completion of abatement and lead-related construction work, re-install fixtures, electrical utilities, telephone utilities and other components removed as construction interferences except for components scheduled for removal and disposal.

3.14 LEAD CONTAMINATION OF BUILDING OR ENVIRONMENT

- A. In the event that removed paint dust or debris is not properly contained within the Work Area and thereby escapes, bypasses or penetrates established barriers, the Contractor shall stop work immediately, notify the Environmental Consultant immediately, and commence clean-up and decontamination procedures as described herein or directed by the Environmental Consultant.
- B. For soil contamination, the Contractor shall remove all visible signs of paint dust and debris and, at minimum, the upper one-half inch of soil in the area contaminated and at least five feet beyond in each direction. Successful completion of soil decontamination

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shall be subject to evaluation by sampling at the discretion of the District and Environmental Consultant. Soil sample(s) with lead concentrations below pre-abatement composite soil sample results or 400 ppm if background samples were not collected shall be the criteria for completion of soil clean-up and decontamination. The Contractor shall be responsible for all costs associated with disposal of any debris and contaminated soil, including waste characterization testing.

3.15 WASTE STORAGE, SEGREGATION, AND CHARACTERIZATION

- A. The Contractor shall provide for secure onsite temporary storage of Lead related waste. Waste storage location, equipment, containers and methods are subject to prior approval by the District and Environmental Consultant.
- B. Construction materials removed from lead abatement must be evaluated to determine waste characteristics prior to disposal. Except intact Lead containing components, all waste streams and waste categories shall be considered hazardous until proven otherwise. The Contractor shall be responsible for segregating waste into the following categories and conducting appropriate waste testing for lead:
 - 1. Paint (LBP & non-LBP) and glazing, chips, dust and debris, HEPA vacuum waste, and used cleaning materials. The Contractor shall handle, store and dispose of these items as a hazardous lead waste without further characterization.
 - 2. Plastic sheeting and tape. Except for plastic sheeting from chemical removal areas, these used items, if properly cleaned, should be non-hazardous. However, they shall be considered hazardous unless proven otherwise by lead waste testing.
 - 3. Disposable Protective Clothing and Equipment (PPE). Disposable work clothes and other items potentially contaminated with LBP or lead, if properly cleaned, should be non-hazardous. However, they shall be considered hazardous unless proven otherwise by lead waste testing.
 - 4. Intact Lead containing components. Architectural debris with intact Lead coatings will be considered a special non-hazardous construction debris as long as the coating remains intact unless otherwise noted.
 - 5. Stucco / Plaster debris. Plaster debris with lead-based paint shall be considered hazardous pending laboratory results.
 - 6. Chemically Removed Paint/Glazing - shall be considered hazardous waste.
- C. Each Lead-related waste produced shall be placed in properly segregated, labeled and sealed, impervious containers.
- D. Removed intact Lead containing components shall be properly segregated, wrapped in six-mil polyethylene sheeting, labeled and securely sealed with duct tape.

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- E. All waste containers, bags, and packaged waste shall be stored in a designated, secure, locked waste storage area and be labeled "PENDING ANALYSIS" with the following information:
1. Waste Category
 2. Date Accumulated
 3. Name, address, District
 4. Origin of waste
- F. HEPA vacuum and wet-wipe the exterior of all waste containers prior to removing them from the Work Area to the designated storage area.
- G. All Lead-related waste, except architectural components with intact Lead coatings, shall be considered hazardous until waste characterization has been performed under the California Code of Regulations, Title 22. Architectural debris with intact coatings is a special category which may not be subject to testing as determined by the Environmental Consultant.
- H. Each category of waste, except components with intact paint or coatings, will be tested and characterized by the Contractor using one or more of the following testing protocols:
1. Cal-EPA testing protocol:

	<u>Criteria</u>
a. Total Threshold Limit Concentration (TTLC):	1,000 ppm
b. Soluble Threshold Limit Concentration (STLC):	5 ppm
 2. Federal-EPA testing protocol:
 - a. Toxicity Characteristic Leaching Procedure (TCLP): 5 ppm
- I. All testing by the Contractor shall be subject to direct observation and review by the Environmental Consultant. At minimum, a TTLC shall be performed on each suspect waste stream. Based on the testing protocols, any waste greater than or equal to five (5) ppm lead using STLC or TCLP tests or any waste greater than or equal to 1,000 ppm lead using the TTLC test shall be considered a hazardous waste.
- J. When the TTLC is less than 50 ppm lead, no further testing is required for that waste category sampled. It will be the responsibility of the Contractor to ensure representative samples are taken from each category of segregated waste.
- K. The Contractor shall package, store, handle, transport and dispose of each category of waste generated based on the testing results obtained by the Contractor and reviewed by Environmental Consultant. Where landfills have more stringent requirements, the Contractor shall be responsible for all additional disposal costs. The proposed landfill shall be subject to approval by the Environmental Consultant.

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- L. Upon verbal request of the Environmental Consultant, the Contractor shall collect samples of Lead-related waste. The Contractor shall collect samples within full view and presence of the Environmental Consultant. Samples taken may entail cutting and removing sections of a component and clean-up of any resulting dust or debris.
- M. The cost of all waste characterization or waste profiling required by the approved landfill will be the responsibility of the Contractor.
- N. In the event that the Environmental Consultant has determined that waste is not properly segregated, additional waste testing may be conducted of the mixed waste stream. The Contractor shall be responsible for the costs associated with this additional testing.
- O. The Contractor shall bear full responsibility for additional costs associated with waste disposal and characterization if waste is not properly segregated as required herein.

3.16 HAZARDOUS WASTE DISPOSAL:

- A. Site Storage and Handling: The Contractor shall pay strict attention to the requirements of 40 CFR 262 and 265 and Title 22, Chapter 30 for the onsite handling of debris, with special attention given to the time of storage, amount of material stored at any one time, use of proper containers, and personnel training. All waste shall be stored in secure, locked, labeled, sealed impervious containers and not placed on the unprotected ground. All containers shall be shielded adequately to prevent dispersion of the debris by wind or rain and shall be labeled as hazardous waste. Any evidence of improper storage shall be cause for immediate shutdown of the project until a corrective action is taken.
- B. Transportation and Disposal of Waste:
 - 1. The Contractor shall arrange to have the Lead-related waste and debris transported from the site in accordance with the requirements of 40 CFR 263 and 264 and disposed of properly in accordance with 40 CFR 268, GISO 8 CCR Articles 40 and 41, 49 CFR Parts 172, 173, 178, and 179 and Title 22, Chapter 30, Articles 5, 6, 6.5 and 8.
 - 2. The Contractor shall submit to the District and Environmental Consultant the Name, Class, and EPA I.D. Number of the waste disposal site(s) to be used for each waste category which has been determined by testing to exceed the hazardous waste thresholds provided in Article 3.14, Paragraph H and Paragraph I and any Intact LBP component waste.
 - 3. Where Lead related construction debris is to be disposed of as non-hazardous, a waste shipping record is still required, and a copy shall be provided to the District and Environmental Consultant.
 - 4. The Contractor shall prepare waste shipping manifests for review by the District.

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Upon waste or material pickup by the selected waste transporter, manifests shall be signed by the District or District's Representative and copies retained to verify that all steps of the handling and disposal process have been completed properly.

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5. Copies of the landfill weight tickets shall be provided to the District and Environmental Consultant to verify the amount of waste disposed of at that site. The Contractor shall be responsible for all costs associated with transportation and disposal of all wastes generated at the result of this work.
- C. No waste characterized as hazardous waste shall be stored onsite for more than 90 days prior to being properly transported for disposal.
- D. All equipment, materials, and waste generated on this project must be removed offsite to their proper locations by the Contractor within seven (7) calendar days from successful abatement completion and receipt of final clearance wipe testing results for lead related work.
- E. Containers to be loaded for transportation from the storage area must be removed by workers who have entered from uncontaminated areas, dressed in clean coveralls.

3.17 STOP WORK ORDERS

- A. The Environmental Consultant has the authority to stop work in accordance with Section 01 11 00 Article 1.15. Examples of such conditions that might result in a work stoppage include but are not limited to:
 1. Uncontrolled visible emissions which escape the established Work Area or breach physical protective barriers within the Work Area; and/or,
 2. Ambient airborne levels of lead measured outside the construction area at more than 0.15 micrograms per cubic meters of air ($\mu\text{g}/\text{m}^3$) of lead (rolling three month average).
 3. Unsecured Waste Storage Area and/or improper containment of abatement waste or LBP contamination.

3.18 PROJECT CLOSEOUT

- A. Prior to approval of final payment request, the Contractor must provide the following information:
 1. Copies of hazardous waste manifests, profile sheets and weight tickets for all hazardous wastes and manifests and weight tickets for non-hazardous wastes or recyclables consisting of architectural debris with intact paint.
- B. All surfaces damaged during this work must be restored to their original condition except those surfaces scheduled for demolition as part of the renovation project.

END OF SECTION