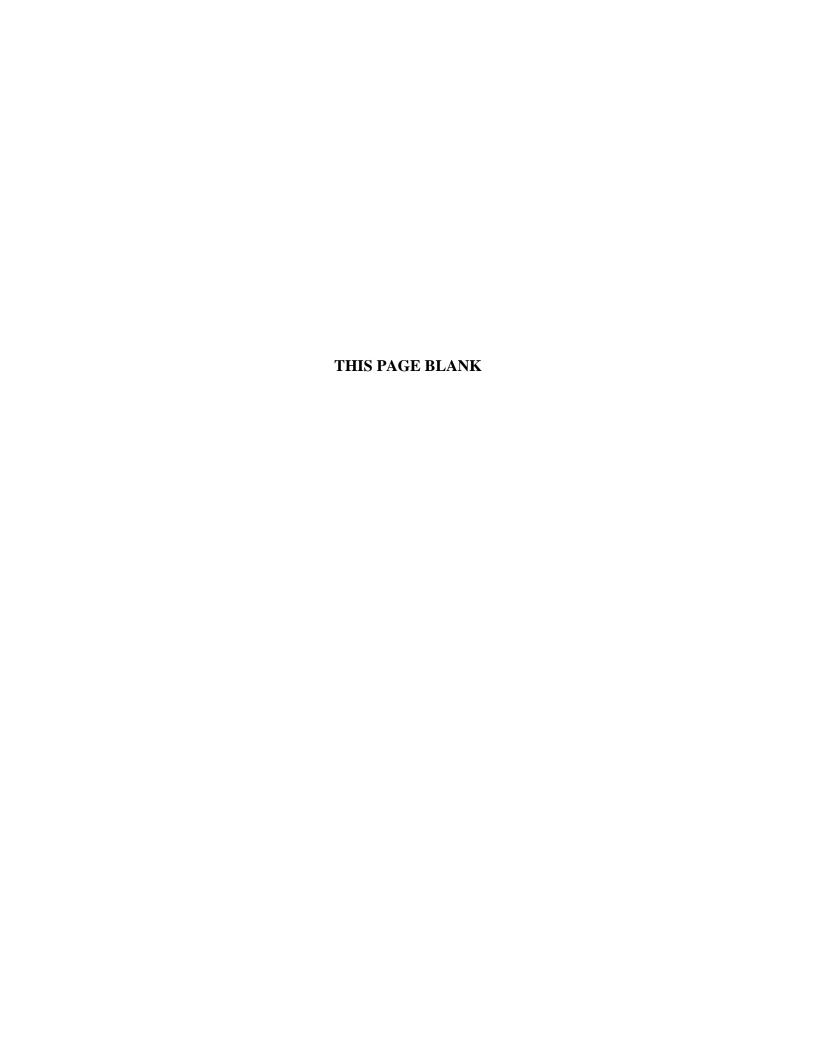


PROJECT MANUAL

2019 KITCHEN UPGRADES © VALLECITOS ELEMENTARY SCHOOL



Architect's Project No.: VSVES01.00 Date: December 12, 2019 DSA #A04-118697



SPECIFICATIONS 2019 KITCHEN UPGRADES © VALLECITOS ELEMENTARY SCHOOL

VALLECITOS SCHOOL DISTRICT







IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP. 04-118697 INC:
REVIEWED FOR
SS FLS ACS DATE: 12.03.19

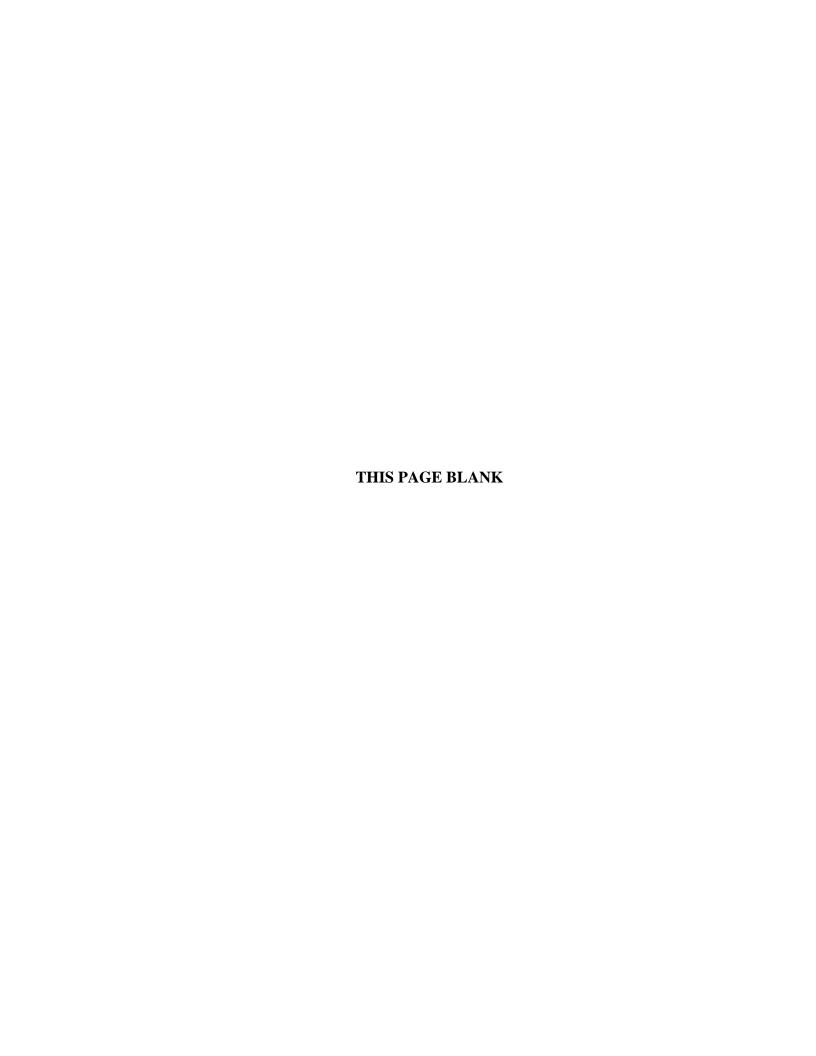


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SECTION 00 1113 ADVERTISEMENT FOR BIDS

DISTRICT BID NO.:

2019-12-002

PROJECT:

Vallecitos ES 2019 Kitchen Upgrades, Vallecitos Elementary School

SCOPE OF PROJECT:

The project scope includes the demolition of existing millwork, flooring, and walls (abate materials where required) in the existing kitchen space. Also, remodeling of the kitchen space to include accessibility upgrades and equipment to satisfy requirements established by the local Health Department. The scope also includes miscellaneous site and ADA upgrades as indicated on the drawings. The estimated construction cost is \$ 260,000.

JOB WALK:

NON- MANDATORY PRE-BID MEETING and JOB-WALK

Date: 12-17-2019

Time: 12pm

Meet at the Flagpole, in front of the school entrance

Vallecitos Elementary School

5211 Fifth Street

Rainbow, CA 92028

BID DATE: 01-03-2020

Submit Bids in a **Sealed Envelope** to:

Maritza Koeppen

District Superintendent/Principal/Director of Facilities Development

Front Office

5211 Fifth Street

Rainbow, CA 92028

Mark the Bid Envelope:

Bid Package

Vallecitos ES 2019 Kitchen Upgrades

Vallecitos Elementary School

Contractor's License Class required: B

NOTICE IS HEREBY GIVEN that the Vallecitos School District in the County of San Diego, California, acting by and through its Governing Board, hereinafter referred to as "District", will receive prior to the above-stated bid deadline, sealed bids for the award of a Contract for the following:

2019-12-002, Vallecitos ES 2019 Kitchen Upgrades

All bids shall be made and presented only on the forms presented by the District. Bids shall be received in the Offices of the *Vallecitos School District at 5211 Fifth Street Rainbow*, *CA 92028* and shall be opened and publicly read aloud at the above state time and place. Any bids received after the time specified above or after any extensions due to material changes shall be returned unopened.

The anticipated construction range for the Work of this Project is: January 10, 2020 to January 31, 2020

The Contract Time is: 21 calendar day(s).

CONTRACTOR should consult the General Conditions, Supplementary Conditions, and General Requirements regarding Milestones and Liquidated Damages.

SECTION 00 2113 INSTRUCTIONS TO BIDDERS

- 1. Preparation of Bid Form. Proposals under these specifications shall be submitted on the blank forms furnished herewith at the time and place stated in the Notice Inviting Bids. All blanks in the bid form must be appropriately filled in, and all proposed prices must be stated clearly and legibly in both words and numerals. All bids must be signed by the bidder in permanent blue ink and submitted in sealed envelopes, bearing on the outside, the bidder's name, address, telephone number, and California Contractor's License number, and the name of the Project for which the bid is submitted. The District reserves the right to reject any bid if all of the above information is not furnished. It is each bidder's sole responsibility to ensure its bid is timely delivered and received at the location designated as specified above. Any bid received at the designated location after the scheduled closing time for receipt of bids shall be returned to the bidder unopened.
- 2. <u>Signature</u>. The bid form, all bonds, all designations of subcontractors, the Contractor's Certificate, the Agreement, and all Guarantees must be signed in permanent blue ink in the name of the bidder and must bear the signature in longhand of the person or persons duly authorized to sign the bid.
 - A. If bidder is a corporation, the legal name of the corporation shall first be set forth, together with two signatures: one from the President and one from the Secretary or Assistant Secretary. Alternatively, the signature of other authorized officers or agents may be affixed, if a certified copy of the resolution of the corporate board of directors authorizing them to do so is provided to the District. Such documents shall include the title of such signatories below the signature and shall bear the corporate seal.
 - B. If bidder is a partnership, the true name of the firm shall first be set forth, together with the names of all persons comprising the partnership or co-partnership. The bid must be signed by all partners comprising the partnership unless proof in the form of a certified copy of a statement of partnership acknowledging the signer to be a general partner is presented to the District, in which case the general partner may sign.
 - C. Bids submitted as joint ventures must so state and be signed by each joint venturer.
 - D. Bids submitted by individuals must be signed by the bidder unless an up to date power- of-attorney is on file in the District office, in which case, said person may sign for the individual.
 - E. The above rules also apply in the case of the use of a fictitious firm name. In addition, however, where a fictitious name is used, it must be so indicated in the signature.
- 3. <u>Modifications.</u> Changes in or additions to the bid form, recapitulations of the work bid upon, alternative proposals, or any other modification of the bid form which is not specifically called for in the Contract Documents may result in the District's rejection of the bid as not being responsive to the Notice Inviting Bids. **No oral or telephonic modification of any bid submitted will be considered.**
- 4. <u>Erasures, Inconsistent or Illegible Bids.</u> The bid submitted must not contain any erasures, interlineations, or other corrections unless each such correction creates no inconsistency and is suitably authenticated by affixing in the margin immediately opposite the correction the signature or signatures of the person or persons signing the bid. In the event of inconsistency between words and figures in the bid price, words shall control figures. In the event that the District determines that any bid is unintelligible, inconsistent, or ambiguous, the District may reject such bid as not being responsive to the Notice Inviting Bids.
- Examination of Site and Contract Documents. Each bidder shall visit the site of the proposed work and become fully acquainted with the conditions relating to the construction and labor so that the facilities, difficulties, and restrictions attending the execution of the work under the Contract are fully understood.

Bidders shall thoroughly examine and be familiar with the drawings and specifications. The failure or omission of any bidder to receive or examine any Contract Documents, form, instrument, addendum, or other document or to visit the site and become acquainted with conditions there existing shall not relieve any bidder from obligations with respect to the bid or to the contract. The submission of a bid shall be taken as prima facie evidence of compliance with this section. Bidders shall not, at any time after submission of the bid, dispute, complain, or assert that there were any misunderstandings with regard to the nature or amount of work to be done.

- 6. <u>Withdrawal of Bids.</u> Any bid may be withdrawn, either personally or by written request, at any time prior to the scheduled closing time for receipt of bids. The bid security for bids withdrawn prior to the scheduled closing time for receipt of bids, in accordance with this paragraph, shall be returned upon demand therefor.
 - A. No bidder may withdraw any bid for a period of ninety (90) calendar days after the date set for the opening of bids.
- 7. <u>Agreements and Bonds.</u> The Agreement form which the successful bidder, as CONTRACTOR, will be required to execute, and the forms and amounts of surety bonds which will be required to be furnished at the time of execution of the Agreement, are included in the bid documents and should be carefully examined by the bidder. The number of executed copies of the Agreement, the Performance Bond, and the Payment Bond required is three (3). Payment and Performance bonds must be executed by an admitted surety insurer as defined in Code of Civil Procedure 995.120.
- 8. <u>Interpretation of Plans and Documents/Pre-Bid Clarification.</u> If any prospective bidder is in doubt as to the true meaning of any part of the Contract Documents, or finds discrepancies in, or omissions, a written request for an interpretation or correction thereof may be submitted to the District. The bidder submitting the request shall be responsible for its prompt delivery. **Any interpretation or correction of the Contract Documents will only be made by Addendum duly issued, and a copy of such Addendum will be made available for each contractor receiving a set of the Contract Documents.</u> No person is authorized to make any oral interpretation of any provision in the Contract Documents, nor shall any oral interpretation be binding on the District. If discrepancies on drawings, specifications or elsewhere in the Contract Documents are not covered by addenda, bidder shall include in their bid methods of construction and materials for the higher quality and complete assembly. Each request for clarification shall be submitted in writing, via email, to only the following persons:**

TO: Fred Gualda, Principal, MGPA Architecture, fgualda@mgpaia.com

CC: Maritza Koeppen, Superintendent/Principal, VSD, mkoeppen@vallecitossd.net

Each transmitted request shall contain the name of the person and/or firm filing the request, address, and telephone, Specifications and/or Drawing number. Bidder is responsible for the legibility of handwritten requests. Pre-bid clarification request shall be filed a minimum of six (6) days prior to bid opening. Requests received less than six (6) days before bid opening shall not be considered or responded to. A written response to timely pre-bid clarifications requests which materially affects the bidders price will be made by Addendum issued by the Vallecitos School District not less than seventy-two (72) hours prior to bid opening.

- 9. <u>Bidders Interested in More Than One Bid.</u> No person, firm, or corporation shall be allowed to make, or file, or be interested in more than one prime bid for the same work unless alternate bids are specifically called for. A person, firm, or corporation that has submitted a proposal to a bidder, or that has quoted prices of materials to a bidder, is not thereby disqualified from submitting a proposal or quoting prices to other bidders or making a prime proposal.
- 10. <u>Award of Contract.</u> The Contract will be awarded to the lowest responsive responsible bidder by action of the governing Board. The District reserves the right to reject any or all bids, or to waive any irregularities or informalities in any bids or in the bidding. In the event an award is made to bidder, and such bidder fails

or refuses to execute the Contract and provide the required documents within five (5) calendar days after award of the Contract to bidder, the District may award the Contract to the next lowest responsible and responsive bidder or release all bidders. Each bid must conform and be responsive to the Contract Documents as defined in the General Conditions.

- 11. <u>Bid Protest Procedure.</u> Any bidder may file a bid protest. The protest shall be filed in writing with the District's Director of Facilities not less than three (3) working days after the date of the bid opening. An email address shall be provided and by filing the protest, protesting bidder consents to receipt of e-mail notices for purposes of the Protest and Protest related questions and Protest Appeal, if applicable. The protest shall specify the reasons and facts upon which the protest is based.
 - A. Resolution of Bid Controversy: Once the bid protest is received, the apparent lowest responsible bidder will be notified of the protest and the evidence presented. If appropriate, the apparent low bidder will be given an opportunity to rebut the evidence and present evidence that the apparent low bidder should be allowed to perform the Work. If deemed appropriate by the District, an informal hearing will be held. District will issue a written decision within fifteen (15) days of receipt of the protest, unless factors beyond the District's reasonable control prevent such resolution. The Decision on the Bid Protest will state the reasons for the actions taken by District and will be copied to all parties involved in the protest.
 - B. <u>Appeal:</u> If the protesting bidder or the apparent low bidder is not satisfied with the decision, the matter may be appealed to the Assistant Superintendent of Business, or their designee, within three (3) business days after receipt of the District's written Decision on the Bid Protest. The appeal must be in writing and sent via overnight registered mail with all accompanying information relied upon for the appeal and an e-mail address from which questions and responses may be provided to:

Vallecitos School District

Business Support Services Department

5211 Fifth Street, Rainbow, CA 92028

- C. <u>Appeal Review:</u> The Assistant Superintendent of Business or their designee shall review the Decision on the Bid Protest from the Director of Facilities and issue a written response to the Appeal, or if appropriate, appoint a Hearing Office to conduct a hearing and issue a written decision. The written decision of the Assistant Superintendent of Business or the Hearing Officer shall be rendered within fifteen (15) days and shall state the basis for the decision. The decision concerning the Appeal will be final and not subject to any further Appeals.
- D. Reservation of Rights to Proceed with Project Pending Appeal. The District reserves the right to proceed to award the Project and commence construction pending an Appeal. If there is State Funding or a critical completion deadline, the District may choose to shorten the time limits set forth in paragraph 12 if written notice is provided to the protesting party. E-mailed notice with a written confirmation sent by First Class Mail shall be sufficient to constitute written notice. If there is no written response to a written notice shortening time, the District may proceed with the award.
- E. <u>Finality.</u> Failure to comply with this Bid Protest Procedure shall constitute a waiver of the right to protest and shall constitute a failure to exhaust the protesting bidder's administrative remedies.
- 12. <u>Alternates.</u> If alternate bids are called for, the Contract may be awarded at the election of the Governing Board to the lowest responsible and responsive bidder using the method and procedures outlined in the Notice Inviting Bids and as specified in the section entitled Alternate/Deductive Bid Alternates.

- A. <u>Subcontractor Listing for Alternates.</u> If alternate bids are called for and the bidder intends to use different or additional subcontractors, a separate list of subcontractors must be submitted for each such alternate.
- 13. <u>Evidence of Responsibility.</u> Upon the request of the District, a bidder whose bid is under consideration for the award of the Contract shall submit promptly to the District satisfactory evidence showing the bidder's financial resources, surety and insurance claims experience, construction experience, completion ability, workload, organization available for the performance of the Contract, and other factors pertinent to a Project of the scope and complexity involved.
- 14. Listing Subcontractors. Each bidder shall submit with his bid, on the form furnished with the Contract Documents, a list of the names, license numbers and locations of the places of business of each subcontractor who will perform work or labor or render service to the bidder in or about the project, or a subcontractor who under subcontract to the bidder, specially fabricates and installs a portion of the work, in an amount in excess of one-half of 1 percent of the bidder's total bid as required by the Subletting and Subcontracting Fair Practices Act (Public Contract Code Section 4100, et. seq.).
 - A. <u>Subcontractor Listing for Alternates</u>. If alternate bids are called for and the bidder intends to use different or additional subcontractors, a separate list of subcontractors must be submitted for each such alternate.
- 15. Workers' Compensation. In accordance with the provisions of Labor Code Section 3700, the successful bidder as the Contractor shall secure payment of compensation to all employees. The Contractor shall sign and file with the District the following certificate prior to performing the work under this contract: "I am aware of the provisions of Section 3700 of the Labor Code, which requires every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the work of this contract." The form of such certificate is included as a part of the Bid Package.
- 16. <u>Contractor's License</u>. To perform the work required by this notice, the Contractor must possess the Contractor's License as specified in the Notice Inviting Bids, and the Contractor must maintain the license throughout the duration of the contract. If, at the time of award of the Contract, bidder is not licensed to perform the Project in accordance with Division 3, Chapter 9, of the Business and Professions Code for the State of California and the Notice to Contractors calling for bids, such bid will not be considered and the Contractor will forfeit its bid security to the District.
- 17. Anti-Discrimination. It is the policy of the District that in connection with all work performed under contracts, there be no discrimination against any prospective or active employee engaged in the work because of race, color, ancestry, national origin, religious creed, sex, age, or marital status. The Contractor agrees to comply with applicable federal and California laws, including, but not limited to, the California Fair Employment and Housing Act, beginning with Government Code section 12900 and Labor Code section 1735. In addition, the Contractor agrees to require like compliance by any subcontractors employed on the work by such Contractor.
- 18. <u>Preference for Materials and Substitutions.</u>
 - A. <u>One Product Specified</u>. Unless the plans and specifications state that no Substitution is permitted, whenever the Contract Documents indicate any specific article, device, equipment, product, material, fixture, patented process, form, method, construction, or any specific name, make, trade name, or catalog number, with or without the words, "or equal," such specification shall be read as if the language "or equal" is incorporated.
 - B. <u>Request for Substitution</u>. Bidder may, unless otherwise stated, offer any material, process, article, etc., which is materially equal or better in every respect to that so indicated or specified ("Specified Item") and will completely accomplish the purpose of the Contract Document. If

bidder desires to offer a Substitution for a Specified Item, such bidder must make a request in writing on the District's Substitution Request Form ("Request Form") and submit the completed Request Form with the bidder's bid. The Request Form must be accompanied by evidence as to whether the proposed substitution:

- 1. Is equal in quality, service, and ability to the Specified Item as demonstrated by a side by side comparison of key characteristics and performance criteria (CSI comparison chart);
- Will entail no changes in detail, construction and scheduling of related work;
- 3. Will be acceptable in consideration of the required design and artistic effect;
- 4. Will provide no cost disadvantage to the District;
- 5. Will require no excessive or more expensive maintenance, including adequacy and availability of replacement parts; and
- 6. Will require no change in the Contract Time.
- C. In completing the Request Form, bidder must state with respect to each requested substitution whether bidder will agree to provide the Specified Item in the event that the District denies bidder's request for substitution of a Specified Item. In the event that bidder does not agree in the Request Form to provide the Specified Item and the District denies the requested Substitution, the bidder's bid shall be considered non-responsive and the District may award the Contract to the next lowest bidder or in its sole discretion, release all bidders. In the event that bidder has agreed in the Request Form to provide the Specified Item and the District denies bidder's requested substitution for a Specified Item, bidder shall execute the Agreement and provide the Specified Item without any additional cost or charge to the District, and if bidder fails to execute the Agreement with the Specified Item(s), bidder's bid bond will be forfeited.
- D. After the bids are opened, the apparent lowest bidder shall provide, within five (5) calendar days of opening such bids, any and all drawings, specification, samples, performance data, calculations, and other information as may be required to assist the Architect and the District in determining whether the proposed substitution is acceptable. The burden of establishing these facts shall be upon the bidder.
- E. After the District's receipt of such evidence by bidder, the District will make its final decision as to whether the bidder's request for Substitution for any Specified Items will be granted. The District shall have sole discretion in deciding as to whether a proposed request for Substitution is equal to or better than a Specified Item. Any request for Substitution which is granted by the District shall be documented and processed through a Change Order. The District may condition its approval of any Substitution upon delivery to the District of an extended warranty or other assurances of adequate performance of the Substitution. Any and all risks of delay due to DSA, or any other governmental agency having jurisdiction shall be on the bidder.
- 19. <u>Disqualification of Bidders and Proposals.</u> More than one proposal for the same work from any individual, firm, partnership, corporation, or association under the same or different names will not be accepted; and reasonable grounds for believing that any bidder is interested in more than one proposal for the work will be cause for rejecting all proposals in which such bidder is interested and the bidder will forfeit their bid security to the District.
- 20. <u>Unbalanced or Altered Bids.</u> Proposals in which the prices are obviously unbalanced, and those which are incomplete or show any alteration of form, or contain any additions or conditional or alternate bids that are not called for or otherwise permitted, may be rejected. A proposal on which the signature of the bidder has been omitted may be rejected.

- 21. Employment of Apprentices. The Contractor and all Subcontractors shall comply with the provisions of California Labor Code including, but not limited to sections 1777.5, 1777.6, and 1777.7 concerning the employment of apprentices. The Contractor and any Subcontractor under him shall comply with the requirements of said sections, including applicable portions of all subsequent amendments in the employment of apprentices; however, the Contractor shall have full responsibility for compliance with said Labor Code sections, for all apprenticeable occupations, regardless of any other contractual or employment relationships alleged to exist.
- 22. <u>Non-Collusion Declaration.</u> Public Contract Code Section 7106 requires bidders to submit declaration of non-collusion with their bids. This form is included with the bid documents and must be signed and dated by the bidder under penalty of perjury.
- 23. Wage Rates, Travel and Subsistence.
 - A. The Contractor and all subcontractors shall comply with the requirements set forth in Division 2, Part 7, Chapter 1 of the Labor Code. Pursuant to Labor Code Sections 1770 et. seq., the District has obtained from the Director of the Department of Industrial Relations the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work in the locality in which this work is to be performed for each craft, classification or type of worker needed to execute the contract. Copies are available from the District to any interested party on request and are also available from the Director of the Department of Industrial Relations. The Contractor shall obtain copies of the above-referenced prevailing wage sheets and post a copy of such wage rates at appropriate, conspicuous, weatherproof points at the Site.
 - B. Any worker employed to perform work on the Project and such work is not covered by any classification listed in the published general prevailing wage rate determinations or per diem wages determined by the Director of the Department of Industrial Relations, shall be paid not less than the minimum rate of wages specified therein for the classification which most nearly corresponds to the employment of such person in such classification.
 - C. Holiday and overtime work, when permitted by law, shall be paid for at the rate set forth in the prevailing wage rate determinations issued by the Director of the Department of Industrial Relations or at least one and one-half (1½) times the specified basic rate of per diem wages, plus employer payments, unless otherwise specified in the Contract Documents or authorized by law.
 - D. These per diem rates, including holiday and overtime work, and employer payments for health and welfare, pension, vacation, and similar purposes, are on file at the administrative office of the District, located as noted above and are also available from the Director of the Department of Industrial Relations. It is the Contractor's responsibility to ensure the appropriate prevailing rates of per diem wages are paid for each classification. It shall be mandatory upon the Contractor to whom the Contract is awarded, and upon any subcontractor under such Contractor, to pay not less than the said specified rates to all workers employed by them in the execution of the Contract.
- 24. <u>No Telephone or Facsimile Availability.</u> No telephone or facsimile machine will be available to bidders on the District premises at any time.
- 25. <u>Obtaining Bidding Documents.</u> Bidding Documents, may be obtained from:

Vallecitos School District

Front Office

5211 Fifth Street

Rainbow, CA 92028

http://www.vallecitossd.net/services/facilities <u>in digital format: No printed sets will be issued.</u> Bidders may print the digital Bid Documents at their own expense.

There will be a \$5.00 non refundable charge to purchase each set of bid documents. No partial sets will be available.

Bidder shall utilize a complete set of Bidding Documents in preparing a bid. The failure or omission of bidder to receive any Bidding Document, form, instrument, Addendum, or other document shall not relieve bidder from any obligations with respect to the bid and/or Contract.

- 26. <u>Addenda.</u> Clarification or any other notice of a change in the Bidding Documents will be issued only by the Owner office of Vallecitos School District only in the form of a written Addendum, transmitted by fax, email, or available for pick up to all who are known by the issuing office to have received a complete set of Bidding Documents. Any other purported Addenda are void and unenforceable.
 - A. Bidder is responsible for ascertaining the disposition of all Addenda issued regardless of Owner notification and to acknowledge all Addenda in the submitted sealed bid prior to the bid opening. Copies of Addendum will be made available for inspection wherever Bidding Documents are on file for inspection. Each Addendum will be numbered, dated, and identified with the Project number. Oral statements or any instructions in any form, other than Addendum as described above, shall be void and unenforceable. Addendum issued by the Owner office of Vallecitos School District and not noted as being acknowledged by bidder as required in the Bid Form, may result in the bid being deemed non-responsive.
- 27. <u>Debarment.</u> Bidder may also be subject to debarment, in addition to seeking remedies for False Claims under Government Code Section 12650 et seq. and Penal Code Section 72, the District may debar a Contractor pursuant to Article 15 of the General Conditions if the Board, or the Board may designate a hearing officer who, in their discretion, finds the Contractor has done any of the following:
 - A. Intentionally or with reckless disregard, violated any term of a contract with the District
 - B. Committed an act or omission which reflects on the Contractor's quality, fitness or capacity to perform work for the District;
 - C. Committed an act or offense which indicates a lack of business integrity or business honesty; or, made or submitted a false claim against the District or any other public entity (See Government Code Sections 12650, et. seq., and Penal Code Section 72

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SECTION 00 2216

SUPPLEMENTARY INSTRUCTIONS TO BIDDERS

NOTE: THERE ARE NO ALTERNATES ON THIS PROJECT

If the District has included additive/ deductive alternates which require all bidders to price as part of their bid, the District will utilize the following method to determine the lowest bidder in accordance with Public Contract Code section 20103.8:

- A. The lowest bid shall be the lowest bid price on the base contract without consideration of the prices on the additive or deductive items.
- B. The lowest bid shall be the lowest total of the bid prices on the base contract and the following additive or deductive items:

1. **NOT APPLICABLE**

C. The lowest bid shall be the lowest total of the bid prices on the base contract and the following additive or deductive items taken in order as listed below depending upon the available funds for this Project which is estimated at **NOT APPLICABLE**:

1. **NOT APPLICABLE**

D. The lowest bid shall be determined in a manner that prevents any information that would identify any of the bidders from being revealed to the District before the ranking of all bidders from lowest to highest has been determined. The procedures the District will utilize to conceal the identity of any of the bidders will be as follows:

1. **NOT APPLICABLE**

**Note: Pursuant to Public Contract Code Section 20103.8, the selection process selected does not preclude the District from using any of the additive or deductive alternates from the Contract after the lowest responsible responsive bidder has been determined.

MISCELLANEOUS INFORMATION

Bids shall be received in the place identified above, and shall be opened and publicly read aloud at the above-stated time and place.

The bid documents are available at http://www.vallecitossd.net/services/facilities

There will be a non-mandatory Pre-Bid Conference on Tuesday, December 17, 2019, Time: 12pm. Meet at the school entrance. Vallecitos Elementary School, 5211 Fifth Street, Rainbow, CA 92028. Each bidder shall be a licensed contractor pursuant to the California Business and Professions Code, and be licensed to perform the work called for in the Contract Documents. The successful bidder must possess a valid and active Class B License at the time of award and throughout the duration of this Contract. The Contractor's California State License number shall be clearly stated on the bidder's proposal

Subcontractors shall be licensed pursuant to California law for the trades necessary to perform the Work called for in the Contract Documents.

Each bid must strictly conform with and be responsive to the Contract Documents as defined in the General Conditions.

The District reserves the right to reject any or all bids or to waive any irregularities or informalities in any bids or in the bidding.

Each bidder shall submit with his bid — on the form furnished with the Contract Documents — a list of the designated subcontractors on this Project as required by the Subletting and Subcontracting Fair Practices Act, California Public Contract Code Sections 4100 et. seq.

In accordance with California Public Contract Code Section 22300, the District will permit the substitution of securities for any moneys withheld by the District to ensure performance under the Contract. At the request and expense of the Contractor, securities equivalent to the amount withheld shall be deposited with the District, or with a state or federally chartered bank as the escrow agent, who shall then pay such moneys to the Contractor. Upon satisfactory completion of the Contract, the securities shall be returned to the Contractor.

Each bidder's bid must be accompanied by one of the following forms of bidder's security: (1) cash; (2) a cashier's check made payable to the District; (3) a certified check made payable to the District; or (4) a bidder's bond executed by a California admitted surety as defined in Code of Civil Procedure Section 995.120, made payable to the District in the form set forth in the Contract Documents. Such bidder's security must be in an amount not less than five percent (5%) of the maximum amount of bid as a guarantee that the bidder will enter into the proposed Contract, if the same is awarded to such bidder, and will provide the required Performance and Payment Bonds, insurance certificates (or OCIP required documents) and any other required documents. In the event of failure to enter into said Contract or provide the necessary documents, said security will be forfeited.

The District has obtained from the Director of the Department of Industrial Relations the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work in the locality in which this work is to be performed for each craft, classification or type of worker needed to execute the Contract. These per diem rates, including holiday and overtime work, as well as employer payments for health and welfare, pension, vacation, and similar purposes, are on file at the District, and are also available from the Director of the Department of Industrial Relations. Pursuant to California Labor Code Sections 1720 et seq., it shall be mandatory upon the Contractor to whom the Contract is awarded, and upon any subcontractor under such Contractor, to pay not less than the said specified rates to all workers employed by them in the execution of the Contract.

No bidder may withdraw any bid for a period of ninety (90) calendar days after the date set for the opening of bids.

Separate payment and performance bonds, each in an amount equal to 100% of the total Contract amount, are required, and shall be provided to the District prior to execution of the Contract and shall be in the form set forth in the Contract Documents.

All bonds (Bid, Performance, and Payment) must be issued by a California admitted surety as defined in California Code of Civil Procedure Section 995.120.

Where applicable, bidders must meet the requirements set forth in Public Contract Code Section 10115 et seq., Military and Veterans Code Section 999 et seq. and California Code of Regulations, Title 2, Section 1896.60 et seq. regarding Disabled Veteran Business Enterprise ("DVBE") Programs. Forms are included in this Bid Package.

Any request for substitutions pursuant to Public Contracts Code Section 3400 must be made at the time of Bid on the Substitution Request form set forth in the Contract Documents and included with the bid.

No telephone or facsimile machine will be available to bidders on the District premises at any time.

It is each bidder's sole responsibility to ensure its bid is timely delivered and received at the location designated as specified above. Any bid received at the designated location after the scheduled closing time for receipt of bids shall be returned to the bidder unopened.

VALLECITOS SCHOOL DISTRICT SAN DIEGO COUNTY, STATE OF CALIFORNIA

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SECTION 00 4100 BID FORM

FOR

Vallecitos ES 2019 Kitchen Upgrades
Vallecitos Elementary School
5211 Fifth Street
Rainbow, California 92028

BID NO. 2019-12-002

FOR

Vallecitos School District

CONTRACTOR NAME:	
ADDRESS:	
TELEPHONE:	
FAX:	
EMAIL:	

TO: Vallecitos School District, acting by and through its Governing Board, herein called "District".

A. Pursuant to and in compliance with your Notice Inviting Bids and other documents relating thereto, the undersigned bidder, having familiarized himself with the terms of the Contract, the local conditions affecting the performance of the Contract, the cost of the work at the place where the work is to be done, with the Drawings and Specifications, and other Contract Documents, hereby proposes and agrees to perform within the time stipulated, the Contract, including all of its component parts, and everything required to be performed, including its acceptance by the District, and to provide and furnish any and all labor, materials, tools, expendable equipment, and utility and transportation services necessary to perform the Contract and complete all of the Work in a workmanlike manner required in connection with the construction of:

Vallecitos ES 2019 Kitchen Upgrades

BID NO.: 2019-12-002

in the District described above, all in strict conformance with the drawings and other Contract Documents on file at the Facilities Office of said District for amounts set forth herein.

<u>NUMBER</u>	<u>NUMBER</u>	NUMBER	NUMBER	NUMBER	NUMBER	NUME

Acknowledge the inclusion of all addenda issued prior to bid in the blanks provided above. Your failure to do so may render your bid non-responsive.

C.	TOTAL PRICE – ENTIRE JOB	
	TOTAL CASH PURCHASE PRICE IN WORDS & NUMBERS:	
		DOLLARS
	(\$)	
D.	ALLOWANCE of \$10,000 Dollars Added to Total Price, to be used at Owner's	discretion.
		DOLLARS
	(¢	

- E. TIME FOR COMPLETION: The District may give a notice to proceed within ninety (90) days of the award of the bid by the District. Once the Contractor has received the notice to proceed, the Contractor shall complete the work in the time specified in the Agreement. By submitting this bid, Contractor has thoroughly studied this Project and agrees that the Contract Time for this Project is adequate for the timely and proper completion of the Project. Further, Contractor has included in the analysis of the time required for this Project, Rain Days, Governmental Delays, and the requisite time to complete Punch List.
 - In the event that the District desires to postpone giving the notice to proceed beyond this ninety (90) day period, it is expressly understood that with reasonable notice to the Contractor, giving the notice to proceed may be postponed by the District. It is further expressly understood by the Contractor, that the Contractor shall not be entitled to any claim of additional compensation as a result of the postponement of giving the notice to proceed.
 - 2. If the Contractor believes that a postponement will cause a hardship to it, the Contractor may terminate the contract with written notice to the District within ten (10) days after

receipt by the Contractor of the District's notice of postponement. Should the Contractor terminate the Contract as a result of a notice of postponement, the District shall have the authority to award the Contract to the next lowest responsible bidder, if applicable.

- 3. It is understood that the District reserves the right to reject any or all bids and/or waive any irregularities or informalities in this bid or in the bid process. The Contractor understands that it may not withdraw this bid for a period of ninety (90) days after the date set for the opening of bids.
- F. The required List of Designated Subcontractors is attached hereto.
- G. The required Non-Collusion Declaration is attached hereto.
- H. The Substitution Request Form, if applicable, is attached hereto.
- It is understood and agreed that if written notice of the acceptance of this bid is mailed, telegraphed, or delivered to the undersigned after the opening of the bid, and within the time this bid is required to remain open, or at any time thereafter before this bid is withdrawn, the undersigned will execute and deliver to the District a Contract in the form attached hereto in accordance with the bid as accepted, and that he will also furnish and deliver to the District the Performance Bond and Payment Bond, all within five (5) calendar days after award of Contract, and that the work under the Contract shall be commenced by the undersigned bidder, if awarded the Contract, by the start date provided in the District's Notice to Proceed, and shall be completed by the Contractor in the time specified in the Contract Documents.
- J. The names of all persons interested in the foregoing proposal as principals are as follows:

(IMPORTANT NOTICE: If bidder or other interested person is a corporation, state the legal name of such corporation, as well as the names of the president, secretary, treasurer, and manager thereof; if a co-partnership, state the true names of the firm, as well as the names of all individual co-partners comprising the firm; if bidder or other interested person is an individual, state the first and last names in full.)

- K. <u>PROTEST PROCEDURES.</u> If there is a bid protest, the grounds shall be submitted within 3 working days as set forth at Paragraph 12 of the Instructions to Bidders.
- L. The undersigned bidder shall be licensed and shall provide the following California Contractor's license information:

License Number:	
License Expiration Date:	
Name on License:	
Class of License:	

- M. If the bidder is a joint venture, each member of the joint venture must include the above information.
- N. Time is of the essence regarding this Contract, therefore, in the event the bidder to whom the Contract is awarded fails or refuses to post the required bonds and return executed copies of the Agreement form within five (5) calendar days from the date of receiving the Notice of Award, the District may declare the bidder's bid deposit or bond forfeited as damages.
- O. The bidder declares that he/she has carefully examined the location of the proposed Project, that he/she has examined the Contract Documents, including the Plans, General Conditions, Supplemental Conditions, Addenda, and Specifications, and read the accompanying instructions to

bidders, and hereby proposes and agrees, if this proposal is accepted, to furnish all materials and do all work required to complete the said work in accordance with the Contract Documents, in the time and manner therein prescribed for the unit cost and lump sum amounts set forth in this Bid Form.

- P. <u>DEBARMENT.</u> In addition to seeking remedies for False Claims under Government Code Section 12650 et seq. and Penal Code Section 72, the District may debar a Contractor pursuant to Article 15 of the General Conditions if the Board, or the Board's delegatee, in its discretion, finds the Contractor has done any of the following:
 - Intentionally or with reckless disregard, violated any term of a contract with the District;
 - 2. Committed an act or omission which reflects on the Contractor's quality, fitness or capacity to perform work for the District;
 - 3. Committed an act or offense which indicates a lack of business integrity or business honesty; or
 - 4. Made or submitted a false claim against the District or any other public entity. (See Government Code Sections 12650, et. seq., and Penal Code Section 72)

Q. <u>DESIGNATION OF SUBCONTRACTORS</u>

 In compliance with the Subletting and Subcontracting Fair Practices Act (California Public Contract Code Sections 4100 et. seq.) and any amendments thereof, each bidder shall list subcontractors on the District's form Subcontractor list. This subcontractor list shall be submitted with the bid and is a required form

I agree to receive service of notices at the e-mail address listed below.

I the below-indicated bidder, declare under penalty of perjury that the information provided and representations made in this bid are true and correct.

Proper Name of Company	
Name of Bidder Representative	
Street Address	
City, State, and Zip	
Phone Number	
Fax Number	
E-Mail	
Ву:	Date:

Signature of Bidder Representative

NOTE: If bidder is a corporation, the legal name of the corporation shall be set forth above together with the signature of authorized officers or agents and the document shall bear the corporate seal; if bidder is a partnership, the true name of the firm shall be set forth above, together with the signature of the partner or partners authorized to sign contracts on behalf of the partnership; and if bidder is an individual, his signature shall be placed above.

All signatures must be made in permanent ink.

SECTION 00 4325

SUBSTITUTION REQUEST FORM-DURING PROCUREMENT

REQUEST FOR SUBSTITUTION AT TIME OF BID

Pursuant to Public Contract Code Section 3400, bidder submits the following request to Substitute with the bid that is submitted. I understand that if the request to substitute is not "an/or equal" or is not accepted by District and I answer "no" I will not provide the specified item, then I will be held non-responsive and my bid will be rejected. With this understanding, I hereby request Substitution of the following articles, devices, equipment, products, materials, fixtures, patented processes, forms, methods, or types of construction:

	Specification Section	Specified Item	Requested Substituted Item	Contractor Agrees to Provide Specified Item if the request to Substitute is Denied (circle one) ¹		District Decision(circle one)	
1.				Yes	No	Grant	Deny
2.				Yes	No	Grant	Deny
3.				Yes	No	Grant	Deny
4.				Yes	No	Grant	Deny
5.				Yes	No	Grant	Deny
6.				Yes	No	Grant	Deny
7.				Yes	No	Grant	Deny
8.				Yes	No	Grant	Deny
9.				Yes	No	Grant	Deny
10.				Yes	No	Grant	Deny
11.				Yes	No	Grant	Deny
12.				Yes	No	Grant	Deny

¹Bidder must state whether bidder will provide the Specified Item in the event the Substitution request is evaluate and denied. If bidder states that bidder will not provide the Specified Item the denial of a request to Substitute shall result in the rejection of the bidder as non-responsive. However, if bidder states that bidder will provide the Specified Item in the event that bidder's request for Substitution is denied, bidder shall execute the Agreement and provide the Specified Item(s). If bidder refuses to execute the Agreement due to the District's decision to require the Specified Item(s) at no additional cost, bidder's Bid Bond shall be forfeited.

This Request Form must be accompanied by evidence as to whether the proposed Substitution (1) is equal in quality, service, and ability to the Specified Item; (2) will entail no change in detail, construction, and scheduling of related work; (3) will be acceptable in consideration of the required design and artistic effect; (4) will provide no-cost disadvantage to the District; (5) will require no excessive or more expensive maintenance, including adequacy and availability of replacement parts; (6) will require no change of the construction schedule or milestones for the Project; and, (7) Contractor agrees to pay for any DSA Fees or other Governmental Plan check costs associated with this Substitution Request. (See General Conditions Section 3.6)

The undersigned states that the following paragraphs are correct:

- A. The proposed Substitution does not affect the dimensions shown on the Drawings.
- B. The undersigned will pay for changes to the building design, including Architect, engineering, or other consultant design, detailing, DSA plan check or other governmental plan check costs, and construction costs caused by the requested substitution.
- C. The proposed substitution will have no adverse effect on other trades, the Contract Time, or specified warranty requirements.
- D. Maintenance and service parts will be available locally for the proposed substitution.
- E. In order for the Architect to properly review the substitution request, within five (5) days following the opening of bids, the Contractor shall provide samples, test criteria, manufacturer information, and any other documents requested by Architect or Architect's engineers or consultants, including the submissions that would ordinarily be required under Article 3.7 for Shop Drawings along with a document which provides a side by side comparison of key characteristics and performance criteria (often known as a CSI side by side comparison chart).
- F. If Substitution Request is accepted by the District, Contractor is still required to provide a Submittal for the substituted item pursuant to Article 3.7 and shall provide required Schedule information (including schedule fragments, if applicable) for the substituted item as required under Article 8.3.2.1. The approval of the Architect, Engineer, or District of the substitution request does not mean that the Contractor is relieved of Contractor's responsibilities for Submittals, Shop Drawings, and schedules under Article 3.7 and 8.3.2 if the Contractor is awarded the Project.

Name of Bidder:	
Ву:	
District:	
By:	
•	

SECTION 00 4336

DESIGNATION OF SUBCONTRACTORS

DESIGNATION OF SUBCONTRACTORS

In compliance with the Subletting and Subcontracting Fair Practices Act (California Public Contract Code Sections 4100 et. seq.,) and any amendments thereof, each Bidder shall set forth below: (a) the name, license number, and location of the place of business of each subcontractor who will perform work or labor or render service to the Contractor, who will perform work or labor or work or improvement to be performed under this Contract, or a subcontractor licensed by the State of California who, under subcontract to the Contractor, specially fabricates and installs a portion of the work or improvements according to detailed drawings contained in the plans and specifications in an amount in excess of one-half of one percent of the Contractor's total bid; and (b) the portion and description of the work which will be done by each subcontractor under this Act. The Contractor shall list only one subcontractor for each such portion as is defined by the Contractor in this bid. All subcontractors shall be properly licensed by the California State Licensing Board.

If a Contractor fails to specify a subcontractor, or if a Contractor specifies more than one subcontractor for the same portion of work to be performed under the Contract in excess of one-half of one percent of the Contractor's total bid, the Contractor shall be deemed to have agreed that the Contractor is fully qualified to perform that portion, and that the Contractor alone shall perform that portion.

No Contractor whose bid is accepted shall (a) substitute any subcontractor, (b) permit any subcontractor to be voluntarily assigned or transferred or allow the relevant portion of the work to be performed by anyone other than the original subcontractor listed in the original bid, or (c) sublet or subcontract any portion of the work in excess of one-half of one percent of the Contractor's total bid where the original bid did not designate a subcontractor, except as authorized in the Subletting and Subcontracting Fair Practices Act.

Subletting or subcontracting of any portion of the work in excess of one-half of one percent of the Contractor's total bid where no subcontractor was designated in the original bid shall only be permitted in cases of public emergency or necessity, and then only after a finding, reduced to writing as a public record, of the authority awarding this Contract setting forth the facts constituting the emergency or necessity.

NOTE: If alternate bids are called for and bidder intends to use different or additional subcontractors on the alternates, a separate list of subcontractors must be provided for each such Alternate.

DESIGNATION OF SUBCONTRACTORS FORM

Description &	Name of	Location & Pla	ce of E-Mail &	License type and	
Portion of Work	Subcontractor	Business	Telephone	Number	
	Proper Na	me of Bidder:			
		Name:			
S	ignature of Bidder Ro	epresentative:			
	<u> </u>	1			
		Address:			
		Phone:			

SECTION 00 4393 BID SUBMITTAL CHECKLIST

CHECKLIST OF MANDATORY BID FORMS

(FOR CONTRACTOR'S USE)

1.	Bid Form						
2.	Designation of Subcontractors	Designation of Subcontractors					
3.	Non-Collusion Declaration	Non-Collusion Declaration					
4.	Bid Bond (or Bid Guarantee form if Security is o	ther than Bid Bond)					
5.	•	Substitution Request Form (if Substitutions are being requested - If Substitution Request Form is no submitted , no Substitutions will be allowed after the bids are opened)					
6.	Contractor's Certificate Regarding Works Comp	Contractor's Certificate Regarding Works Compensation					
7.	DVBE Participation Statement	DVBE Participation Statement					
8.	Contractor's Certificate Regarding Drug-Free Work Place						
9.	Contractor's Certificate Regarding Alcoholic Beverage and Tobacco-Free Campus Policy						
	Contractor						
	Date						
	Printed Name						
	Signature						

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SECTION 00 4500A

ACKNOWLEDGMENT OF BIDDING PRACTICES REGARDING INDEMNITY FORM

TO: Vallecitos School District RE: BID NO. 2019-12-002

Construction Contract for: Vallecitos ES 2019 Kitchen Upgrades, Vallecitos Elementary School

Please be advised that with respect to the above-referenced Project the undersigned Contractor on behalf of itself and all subcontractors hereby waives the benefits and protection of Labor Code Section 3864, which provides:

"If an action as provided in this chapter is prosecuted by the employee, the employer, or both jointly against the third person results in judgment against such third person, the employer shall have no liability to reimburse or hold such third person harmless on such judgment or settlement in the absence of a written agreement to do so executed prior to the injury."

This Agreement has been signed by an authorized representative of the contracting party and shall be binding upon its successors and assignees. The undersigned further agrees to promptly notify the District of any changes of ownership of the contracting party or any subcontractor while this Agreement is in force.

Contracting Party		
Name of Agent/Title		

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SECTION 00 4500B CONTRACTOR'S CERTIFICATE REGARDING ALCOHOLIC BEVERAGE AND TOBACCO-FREE CAMPUS POLICY

The Contractor agrees that it will abide by and implement the District's Alcoholic Beverage and Tobacco-Free Campus Policy by Vallecitos School District, which prohibits the use of alcoholic beverages and tobacco products, of any kind and at any time, on District-owned or leased buildings, on DISTRICT property and in DISTRICT vehicles. The Contractor shall procure signs stating "ALCOHOLIC BEVERAGE AND TOBACCO USE IS PROHIBITED" and shall ensure that these signs are prominently displayed in all entrances to school property at all times.

CONTRACTOR:
Ву:
Signature

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SECTION 00 4500C

CONTRACTOR'S CERTIFICATE REGARDING DRUG-FREE WORKPLACE

This Drug-Free Workplace Certification form is required from all successful bidders pursuant to the requirements mandated by Government Code Sections 8350 et seq., the Drug-Free Workplace Act of 1990. The Drug-Free Workplace Act of 1990 requires that every person or organization awarded a contract or grant for the procurement of any property or service from any State agency must certify that it will provide a drug-free workplace by performing 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.

Pursuant to Government Code Section 8355, every person or organization awarded a contract or grant from a State agency shall certify that it will provide a drug-free workplace by doing all of the following:

- 1. Publishing a statement, notifying employees that the unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited in the person's or organization's workplace, and specifying actions which will be taken against employees for violations of the prohibition.
- 2. Establishing a drug-free awareness program to inform employees about all of the following:
 - A. The dangers of drug abuse in the workplace;
 - B. The person's or organization's policy of maintaining a drug-free workplace;
 - C. The availability of drug counseling, rehabilitation and employee-assistance programs; and
 - D. The penalties that may be imposed upon employees for drug abuse violations;
- 3. Requiring that each employee engaged in the performance of the contract or grant be given a copy of the statement required by subdivision (a) 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 (a) publish a statement notifying employees concerning the prohibition of controlled substance at the workplace, (b) establish a drug-free awareness program, and (c) require each employee engaged in the performance of the contact be given a copy of the statement required by section 8355(a) and require such employee agree to abide by the terms of that statement.

I also understand that if the Temecula Valley Unified School 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 Sections 8350 et. seq.

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

DATE:	CONTRACTOR:
	Ву:
	Signature

SECTION 00 4500D DISABLED VETERAN BUSINESS ENTERPRISE (DVBE) PARTICIPATION STATEMENT

Each bidder must complete this form in order to comply with the Vallecitos School District ("District") policy for participation of disabled veteran business enterprises (School District projects funded in whole or in part by the State of California pursuant to the Leroy F. Greene School Facilities Act of 1998. (Education Code §17070.10, et seq.)

PROJECT NAME: Vallecitos ES 2019 Kitchen Upgrades, Vallecitos Elementary School

BID NO.: 2019-12-002 DSA No.: 04-118697

The undersigned, on behalf of the Contractor named below, certifies that the Contractor has made reasonable efforts to secure participation by DVBE in the Contract to be awarded for the above-referenced Bid No., including participation by DVBE subcontractors and/or material suppliers. Check only one of the following:

	-			
A.	for the a opportunt the Con-	tractor was unable after reasonable efforts to secure DVBE participation in the Contract bove-referenced Project/Bid No. However, the Contractor will use DVBE services if the nity arises at any time during construction of the Project. Upon completion of the Project, tractor will report to the District the total dollar amount of DVBE participation in any awarded to Contractor, and in any change orders, for the above-referenced Project.		
В.	The Contractor has secured DVBE participation in the Contract for the above reference Project/Bid No. 2019-12-002, and anticipates that such DVBE participation will equipart approximately			
Comp	any:			
Name	•			
Title:				
Signat	ure			
Date:				

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SECTION 00 4519 NON-COLLUSION AFFIDAVIT

NON-COLLUSION DECLARATION TO BE EXECUTED

BY BIDDER AND SUBMITTED WITH BID

(Public Contract Code Section 7106)

(Prime Bidder)

The undersigned declares:	
I am the, of	, ,
(Title) (Name of Bidder)	
the party making the foregoing bid.	
company, association, organization, or corpora bidder has not directly or indirectly induced or a from bidding. The bidder has not in any communication, or conference with anyone to fany overhead, profit, or cost element of the contained in the bid are true. The bidder has not breakdown thereof, or the contents thereof, of corporation, partnership, company association,	of, or on behalf of, any undisclosed person, partnership, ation. The bid is genuine and not collusive or sham. The solicited any other bidder to put in a sham bid, or to refrain manner, directly or indirectly, sought by agreement, fix the bid price of the bidder or any other bidder, or to fix bid price, or of that of any other bidder. All statements, directly or indirectly, submitted his or her bid price or any or divulged information or data relative thereto, to any organization, bid depository, or to any member or agent and has not paid, and will not pay, any person or entity for
	on behalf of a bidder that is a corporation, partnership, joint lity partnership, or any other entity, hereby represents that ecute, this declaration on behalf of the bidder.
	er the laws of the State of California the foregoing is true on this day of 20
	(Signature)
	(Typed Name)

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SECTION 00 4526

WORKERS COMPENSATION CERTIFICATE

CONTRACTOR'S CERTIFICATE REGARDING

WORKERS' COMPENSATION FORM

Labor Code Section 3700 in relevant part provides:

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

- 1. By being insured against liability to pay compensation by one or more insurers duly authorized to write compensation insurance in this State.
- 2. By securing from the Director of Industrial Relations a certificate of consent to self-insure, which may be given upon furnishing proof satisfactory to the Director of Industrial Relations of ability to self-insure and to pay any compensation that may become due to employees.
- 3. For any county, city, city and county, municipal corporation, public district, public agency, or any political subdivision of the state, including each member of a pooling arrangement under a joint exercise of powers agreement (but not the state itself), by securing from the Director of Industrial Relations a certificate of consent to self-insure against workers' compensation claims, which certificate may be given upon furnishing proof satisfactory to the director of ability to administer workers' compensation claims properly, and to pay workers' compensation claims that may become due to its employees. On or before March 31, 1979, a political subdivision of the state which, on December 31, 1978, was uninsured for its liability to pay compensation, shall file a properly completed and executed application for a certificate of consent to self-insure against workers' compensation claims. The certificate shall be issued and be subject to the provisions of Section 3702.

I am aware of the provisions of Labor Code Section 3700 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 provision before commencing the performance of the work of this Contract.

(Signature)
(Prin
(Date

In accordance with Article 5 (commencing at section 1860), Chapter 1, Part 7, Division 2 of the Labor Code, the above certificate must be signed and submitted with the Contractor's bid.

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SECTION 00 5200 SAMPLE AGREEMENT

THIS AGRI	EEMENT, ent	ered into this_	day of	, 20	in the Cou	nty of Sar
Diego of the State	of California,	by and betwee	n the Vallecitos	School District	, hereinafter	called the
"District", and		, here	inafter called the	"Contractor".		

WITNESSETH that the District and the Contractor for the consideration stated herein agree as follows:

ARTICLE I - SCOPE OF WORK: The Contractor shall furnish all labor, materials, equipment, tools, and utility and transportation services, and perform and complete all work required in connection with 2019-12-002, Vallecitos ES 2019 Kitchen Upgrades, Vallecitos Elementary School in strict accordance with the Contract Documents enumerated in Article 7 below. The Contractor shall be liable to the District for any damages arising as a result of a failure to comply with that obligation, and the Contractor shall not be excused with respect to any failure to so comply by an act or omission of the Architect, Engineer, Inspector, Division of the State Architect (DSA), or representative of any of them, unless such act or omission actually prevents the Contractor from fully complying with the Contract Documents and the Contractor protests, in accordance with the Contract Documents, that the act or omission is preventing the Contractor from fully complying with the Contract Documents. Such protest shall not be effective unless reduced to writing and filed with the District office within seven (7) days of the date of occurrence of such act or omission preventing the Contractor from fully complying with the Contract Documents.

ARTICLE 2 - TIME OF COMPLETION: The District may give notice to proceed within ninety (90) days of the award of the bid by the District. Once the Contractor has received a notice to proceed, the Contractor shall reach Substantial Completion (See Article 1.1.46) of the Work within 80 calendar days from receipt of the Notice to Proceed. This shall be called Contract Time. (See Article 8.1.1). It is expressly understood that time is of the essence.

Contractor has thoroughly studied the Project and has satisfied itself that the time period for this Project was adequate for the timely and proper completion of the Project within each milestone and within the Contract time. Further, Contractor has included in the analysis of the time required for this Project, items set forth in General Conditions Section 8.3.2.1, Submittal Schedules, Rain Day Float, and Governmental Delay Float.

In the event that the District desires to postpone giving the notice to proceed beyond this ninety (90) day period, it is expressly understood that with reasonable notice to the Contractor, giving the notice to proceed may be postponed by the District. It is further expressly understood by the Contractor, that the Contractor shall not be entitled to any claim of additional compensation as a result of the District's postponement of giving the notice to proceed.

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

ARTICLE 3 - LIQUIDATED DAMAGES: It being impracticable and infeasible to determine the amount of actual damage, it is agreed that the Contractor will pay the District the sum of TWO HUNDRED

FIFTY DOLLARS (\$250.00) per calendar day for each and every day of delay beyond the Contract Time set forth in Article 2 of this Agreement (inclusive of Milestone that are critical on the Critical Path or noted as critical to the District) as liquidated damages and not as a penalty or forfeiture. In the event Liquidated Damages are not paid, the Contractor further agrees that the District may deduct such amount thereof from any money due or that may become due the Contractor under the Contract (See Article 9.6 and 2.2 of the General Conditions). This Article shall not be construed as preventing the District from the recovery of damages under the Contract Documents.

Should any Change Order result in an increase in the Contract Price, the cost of such Change Order shall be agreed to in advance by the Contractor and the District, subject to the monetary limitations set forth in Public Contract Code Section 20118.4. In the event that the Contractor proceeds with a Change in work without an agreement between the District and Contractor regarding the cost of a Change Order, the Contractor waives any Claim of additional compensation for such additional work.

ARTICLE 5 - HOLD HARMLESS AGREEMENT: Contractor shall defend, indemnify and hold harmless District, Architect, Inspector, the State of California and their officers, employees, agents and independent contractors from all liabilities, claims, actions, liens, judgments, demands, damages, losses, costs or expenses of any kind arising from death, personal injury, property damage or other cause based or asserted upon any act, omission, or breach connected with or arising from the progress of Work or performance of service under this Agreement or the Contract Documents. As part of this indemnity, Contractor shall protect and defend, at its own expense, District, Architect, Construction Manager, Inspector, the State of California and their officers, employees, agents and independent contractors from any legal action including attorney's fees or other proceeding based upon such act, omission, breach or as otherwise required by this Article.

Furthermore, Contractor agrees to and does hereby defend, indemnify and hold harmless District, Architect, Construction Manager, Inspector, the State of California and their officers, employees, agents and independent contractors from every claim or demand made, and every liability, loss, damage, expense or attorney's fees of any nature whatsoever, which may be incurred by reason of:

- A. Liability for (1) death or bodily injury to persons; (2) damage or injury to, loss (including theft), or loss of use of, any property; (3) any failure or alleged failure to comply with any provision of law or the Contract Documents; or (4) any other loss, damage or expense, sustained by any person, firm or corporation or in connection with the Work called for in this Agreement or the Contract Documents, except for liability resulting from the sole or active negligence, or the willful misconduct of the District.
- B. Any bodily injury to or death of persons or damage to property caused by any act, omission or breach of Contractor or any person, firm or corporation employed by Contractor, either directly or by independent contract, including all damages or injury to or death of persons, loss (including theft) or loss of use of any property, sustained by any person, firm or corporation, including the District, arising out of or in any way connected with Work covered by this Agreement or the Contract Documents, whether said injury or damage occurs either on or off District property, but not for any loss, injury, death or damages caused by the sole or active negligence or willful misconduct of the District.
- C. Any dispute between Contractor and Contractor's subcontractors/supplies/ Sureties, including, but not limited to, any failure or alleged failure of the Contractor (or any person hired or

employed directly or indirectly by the Contractor) to pay any Subcontractor or Materialman of any tier or any other person employed in connection with the Work and/or filing of any stop notice or mechanic's lien claims.

Contractor, at its own expense, cost, and risk, shall defend any and all claims, actions, suits, or other proceedings that may be brought or instituted against the District, its officers, agents or employees, on account of or founded upon any cause, damage, or injury identified herein Article 5 and shall pay or satisfy any judgment that may be rendered against the District, its officers, agents or employees in any action, suit or other proceedings as a result thereof.

ARTICLE 6 - PROVISIONS REQUIRED BY LAW: Each and every provision of law and clause required to be inserted in this Contract shall be deemed to be inserted herein, and this Contract shall be read and enforced as though it were included herein, and if through mistake or otherwise any such provision is not inserted or is not inserted correctly, then upon application of either party the Contract shall forthwith be physically amended to make such insertion or correction.

ARTICLE 7 - COMPONENT PARTS OF THE CONTRACT: The Contract entered into by this Agreement consists of the following Contract Documents, all of which are component parts of the Contract as if herein set out in full or attached hereto:

Notice Inviting Bids Instructions to Bidders Designation of Subcontractors Non-Collusion Declaration Bid Guarantee Form Bid Bond Bid Form Contractor's Certificate Regarding Worker's Compensation Acknowledgment of Bidding Practices Regarding Indemnity Agreement Form Payment Bond Performance Bond Guarantee Escrow Agreement for Security Deposit In Lieu of Retention Workers' Compensation/Employers Liability Endorsement General Liability Endorsement Automobile Liability Endorsement Contractor's Certificate Regarding Drug-Free Workplace Contractor's Certificate Regarding Alcohol and Tobacco General Conditions Supplementary and Special Conditions Specifications All Addenda as Issued Drawings/Plans Substitution Request Form

All of the above named Contract Documents are intended to be complementary. Work required by one of the above named Contract Documents and not by others shall be done as if required by all.

ARTICLE 8 - PREVAILING WAGES: Wage rates for this Project shall be in accordance with the general prevailing rate of holiday and overtime wok in the locality in which the work is to be performed for each craft, classification, or type of work needed to execute the Contract as determined by the Director of the Department of Industrial Relations. Copies of schedules of rates so determined by the Director of the Department of Industrial Relations are on file at the administrative office of the District and are also available from the Director of the Department of Industrial Relations.

The following are hereby referenced and made a part of this Agreement and Contractor stipulates to the provisions contained therein.

- D. Chapter 1 of Part 7 of Division 2 of the Labor Code (Section 1720 et seq.)
- E. California Code of Regulations, Title 8, Chapter 8, Subchapters 3 through 6 (Section 16000 et seq.)

ARTICLE 9 - RECORD AUDIT: In accordance with Government Code Section 8546.7(and Davis Bacon, if applicable) and Article 13.11 of the General Conditions, records of both the District and the Contractor shall be subject to examination and audit for a period of five (5) years after a Final Retention Payment or the Recording of a Notice of Completion, whichever occurs first.

ARTICLE 10 - CONTRACTOR'S LICENSE: The Contractor must possess throughout the Project a Class B Contractor's License, issued by the State of California, which must be current and in good standing.

IN WITNESS WHEREOF, this Agreement has been duly executed by the above named parties, on the day and year first above written.

Vallecitos School District	Contractor
Ву:	Typed or Printed Name
By:	
Assistant Superintendent, Business Support Service	s Title
Dated:	
	Signature
	Type or Printed Name
	Title (Authorized Officers or Agents)
	Signature
	(CORPORATE SEAL)

SECTION 00 6100 BID BOND FORM

bound unto the Vallecitos School Distri	_ (hereafter called "Surety"), are hereby held and firmly rict (hereafter called "District") in the sum of
) for the payment of which, well and truly to be
made, we hereby jointly and severally bind oursel	
SIGNED this day of	, 20
	nat whereas the Principal has submitted to the District a part hereof, to enter into a Contract in writing for the
NOW, THEREFORE,	
If said Bid is rejected, or	
Agreement form within five (5) calendar days after	cipal executes and delivers a Contract or the attached er acceptance (properly completed in accordance with said rmance of said Contract and for payment of all persons ction therewith,
Then this obligation shall be void; otherwis	e, the same shall remain in force and effect.
or addition to the terms of the Contract, or the caspecifications accompanying the same, shall in a hereby waive notice of any such change, extens Contract, or the call for bids, or the work, or to the	
	y the District and judgment is recovered, the Surety shall including without limitation, attorneys' fees to be fixed by
-	rety have hereunto set their hands and seals, and such of orate seals to be hereto affixed and these presents to be ar first set forth above.
	By:
(Corporate Seal)	Principal's Signature
	To all Division
	Typed or Printed Name
	Principal's Title
	By:
(Corporate Seal)	Surety's Signature
	Typed or Printed Name

KNOW ALL MEN BY THESE PRESENT that we, the undersigned, (hereafter called "Principal"), and

	Title
(Attached Attorney in Fact Certificate)	Surety's Name
	Surety's Address
	Surety's Phone Number

IMPORTANT:

Surety companies executing bonds must possess a certificate of authority from the California Insurance Commissioner authorizing them to write surety insurance defined in California Insurance Code Section 105, and if the work or project is financed, in whole or in part, with federal, grant, or loan funds, it must also appear on the Treasury Department's most current list (Circular 570 as amended).

THIS IS A REQUIRED FORM.

Any claims under this bond may be addressed to:
(Name and Address of Surety)
(Name and Address of agent or representative for service of process in California if different from above)
(Telephone Number of Surety and agent or representative for service of process in California).

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SECTION 00 6113.13 PERFORMANCE BOND

PERFORMANCE BOND

(CALIFORNIA PUBLIC WORK)
WHEREAS, the Vallecitos School District , (sometimes referred to hereinafter referred to as "District or as "Obligee") has awarded
WHEREAS, the work to be performed by the Contractor is more particularly set forth in that certain Contract for said Public Work dated, (hereinafter referred to as the "Contract"), which Contract is incorporated herein by this reference; and
WHEREAS, the Contractor is required by said Contract to perform the terms thereof and to provide a bond both for the performance and guaranty thereof.
NOW THEREFORE, we,, the undersigned Contractor, as Principal, and, a corporation organized and existing under the laws of the State of, and duly authorized to transact business under the laws of the State of California, as Surety, are held and firmly bound unto the Vallecitos School District in the
Dollars (\$), said sum being not less than one hundred percent (100%) of the total amount payable by said Obligee under the terms of said Contract, for which amount well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.
THE CONDITION OF THIS OBLIGATION IS SUCH THAT, if the bounded Contractor, his or her heirs, executors, administrators, successors or assigns, shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions, and agreements in the Contract Documents and any alteration thereof made as therein provided, on his or her part, to be kept and performed at the time and in the manner therein specified, and in all respects according to their intent and meaning; and shall faithfully

fulfill guarantees of all materials and workmanship; and indemnify, defend and save harmless the Obligee, its officers and agents, as stipulated in said Contract, then this obligation shall become null and void; otherwise it shall be and remain in full force and effect.

For value received, the Surety 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 obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration, or addition to the terms of the Contract, or to the work, or to the Specifications.

No final settlement between the Obligee and the Contractor shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

Contractor and Surety agree that if the Obligee is required to engage the services of an attorney in connection with enforcement of the bond, Contractor and Surety shall pay Obligee's reasonable attorneys' fees incurred, with or without suit, in addition to the above sum.

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

IN WITNESS WHEREOF this instrument has been named, on the day of	
PRINCIPAL: Corporate Seal of Principal if Corporation _ Principal	
By:	_
Print Name:	
Title:	_
SURETY:	_
By:	_
Title:	_
Telephone:	_

Attach Attorney-in-Fact Certificate and Required Acknowledgement END OF SECTION

SECTION 00 6113.16 PAYMENT BOND

(CALIFORNIA PUBLIC WORK)

PROJECT NAME: Vallecitos ES 2019 Kitchen Upgrades, Vallecitos Elementary School

BID NO.: 2019-12-002

WHEREAS, said Contractor is required California Civil Code section 9554 et. Seq. furnish a Labor and laterial Bond in connection with said Contract;
NOW, THEREFORE, We, the PRINCIPAL and, doing
usiness in California as an admitted Surety located at,
ity of, State of California, as Surety, are indebted to the
vistrict in the sum of AND /100 (\$), for which payment Principal and Surety bind ourselves, our heirs,
xecutors, administrators, successors, and assigns, jointly and severally. said sum being not less than one
undred percent (100%) of the total amount payable by said District under the terms of said Contract, for
thich payment will and truly to be made, we bind ourselves, our heirs, executors and administrators,
accessors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that if said Contractor, his or its subcontractors, heirs, executors, administrators, successors, or assigns, or subcontractor, shall fail to pay any person or persons named in Civil Code Section 9100; or fail to pay for any 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 due under the Unemployment Insurance Code, with respect to work or labor performed under the Contract or for any amounts required to be deducted, withheld, and paid over to the Employment Development Department from the wages of the Contractor and subcontractors pursuant to Section 13020 of the Unemployment Insurance Code, with respect to such work and labor that the Sureties will pay for the same, in case suit is brought upon this bond reasonable attorney's fees as shall be fixed by the court, awarded and taxed as provided in California Civil Code Sections 9554 et. seq.

This bond shall inure to the benefit of any and all persons, companies, and corporations entitled to file claims under Section 9100 of the California Civil Code, so as to give a right of action to them or their assigns in any suit brought upon this bond.

It is further stipulated and agreed that the Surety of this bond shall not be exonerated or released from the obligation of the bond by any change, extension of time for performance, addition, alteration or modification in, to, or of any Contract, Plans, or Specifications, or Agreement pertaining or relating to any scheme or work of improvement herein above described; or pertaining or relating to the furnishing of labor, materials, or equipment therefor; nor by any change or modification of any terms of payment or extension of time for payment pertaining or relating to any scheme or work of improvement herein above described; nor by any rescission or attempted rescission of the Contract, Agreement or bond; nor by any conditions precedent or subsequent in the bond attempting to limit the right of recovery of claimants otherwise entitled to recover under any such Contract or Agreement or under the bond; nor by any fraud practiced by any person other than the claimant seeking to recover on the bond; and that this bond be construed most strongly against the Surety and in favor of all persons for whose benefit such bond is given; and under no circumstances shall the Surety be released from liability to those for whose benefit such bond has been given, by reason of any breach of Contract between the District and the Contractor or on the part of any

obligee named in such bond; that the sole condition of recovery shall be that the claimant is a person described in California Civil Code Sections 9100, and who has not been paid the full amount of his or her claim; and that the Surety does hereby waive notice of any such change, extension of time, addition, alteration or modification herein mentioned.

	een duly executed by the Principal and Surety above
named, on the day of	, 20
PRINCIPAL: Corporate Seal of Principal if Corporat	ion
	_ Principal
By:	
Print Name:	
Title:	
SURETY:	
By:	
Title:	
Telephone:	

Attach Attorney-in-Fact Certificate and Required Acknowledgement

SECTION 00 6319 PRE-BID CLARIFICATION

PRE-BID CLARIFICATION

PROJECT NAME:	Vallecitos ES 2	2019 Kitchen Upgrades	
PROJECT NUMBER:	Architect: VSVES01	District Bid Number:	2019-12-002
TO:		Email:	
DATE:			
FROM:		EMAIL:	
DOCUMENT/DIVISION NUMBER:		DRAWING NUMBER:	
REQUESTED CLARIFICA	ATION:	<u>'</u>	
RESPONSE TO CLARIFIC	CATION:		

Attach additional numbered sheets as necessary; however, only one (1) request shall be contained on each submitted for

DISABLED VETERAN BUSINESS ENTERPRISE (DVBE) CONTRACTOR CLOSE-OUT STATEMENT

The Contractor shall complete this form, as a condition to Final Payment, for purposes of reporting participation by Disabled Veteran Business Enterprises (DVBE) in the Contract for the Project/Bid No. specified below.

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SECTION 00 6536 WARRANTY FORM

GUARANTEE

Guarantee for	. We hereby guarantee that the BID NO. 2019-
12-002, Vallecitos ES 2019 Kitchen Up	ogrades, Vallecitos Elementary School Project has been done in
accordance with the Contract Documents	s, including without limitation, the drawings, and specifications,
and that the work as installed will fulfill	the requirements included in the bid documents. The undersigned
and its surety agrees to repair or replace a	any or all such work, together with any other adjacent work, which
may be displaced in connection with such	h replacement, that may prove to be defective in workmanship or
material within a period of ONE (1) y	year from the date of the Notice of Completion of the above-
mentioned structure by the Vallecitos Sch	hool District, ordinary wear and tear and unusual abuse or neglect
excepted.	
	surety fails to comply with the above-mentioned conditions within

In the event the undersigned or its surety fails to comply with the above-mentioned conditions within a reasonable period of time, as determined by the District, but not later than ten (10) days after being notified in writing by the District or within forty eight (48) hours in the case of an emergency or urgent matter, the undersigned and its surety authorizes the District to proceed to have said defects repaired and made good at the expense of the undersigned and its surety, who will pay the costs and charges therefor upon demand. The undersigned and its surety shall be jointly and severally liable for any costs arising from the District's enforcement of this Guarantee.

	Countersigned
(Proper Name)	(Proper Name)
Ву:	Ву:
(Signature of Subcontract or Contractor)	(Signature of General Contractor if for Subcontractor)
Representatives to be contacted for service:	
Name:	
Address:	
Phone	
Number:	

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VALLECITOS SCHOOL DISTRICT

GENERAL CONDITIONS

(pages 1 - 140)

2019 KITCHEN UPGRADES

at

VALLECITOS ELEMENTARY SCHOOL 5211 Fifth Street Rainbow, CA 92028

BID NO. 2019-12-002

5211 Fifth Street, Rainbow, California 92028 (760) 728-7092

DECEMBER 12, 2019

LLECITOS SCHOOL DISTRICT
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VALLECITOS ELEMENTARY SCHOOL 2019 KITCHEN UPGRADES

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ARTICLE 1 DEFINITIONS

1.1 BASIC DEFINITIONS

- 1.1.1 Action of the Governing Board is a vote of a majority of the District's Governing Board.
- 1.1.2 <u>Approval</u> means written authorization through action of the Governing Board. The Governing board has Delegated to the Assistant Superintendent the authority to approve certain modifications, Change Orders or Immediate Change Directives (Subject to the limits of the Delegation of Authority provided by the Board). In no case shall the Assistant Superintendent have authority to approve total change orders or modifications to the Project exceeding 10% of the Contract sum.
- 1.1.3 <u>Architect</u> means the architect, engineer, or other design professional engaged by the District to design and perform general observation of the work of construction and interpret the drawings and specifications for the Project. Also see Article 4.
- 1.1.4 <u>As-Builts</u> are a set of Plans and Specifications maintained by the Contractor clearly showing all changes, revisions, substitutions, field changes, final locations, and other significant features of the Project. The As-Builts shall be maintained continuously throughout the Work for the Project and is both a prerequisite to the issuance of Pay Application and a requirement for Contract Close-Out. See Article 3.17
- 1.1.5 <u>Beneficial Occupancy</u> is the point in time when a building or buildings are fit for occupancy is fit for occupancy and its intended use Basic requirements are the building is safe, at or near Substantial Completion, and all life safety is operational. The fact that a building is occupied does not mean that the building is ready for Beneficial Occupancy if there are elements that are unsafe or if life safety items are not operational. Taking occupancy on a structure that is under a fire watch is not considered beneficial occupancy. Further, taking of Beneficial Occupancy is not a point in time when retention is due unless the entire school has obtained a Certificate of Substantial Completion that meets the definition of 1.1.46.
- 1.1.6 <u>Claims.</u> A Claim is a request for payment, supported by back-up documentation which includes, invoices time sheets, or other documents substantiating legitimacy or entitlement that is submitted during the Project or immediately following the Project made prior to the Final Retention Payment Application and prior to Final Completion of the Project. A "Claim" means a separate demand by the Contractor for (1) time extension, (2) 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 the claimant is not otherwise entitled to, or (3) and amount the payment of which is disputed by the District. See Article 4.6.
- 1.1.7 <u>Change Order (CO).</u> A CO is a written instrument prepared by the Architect and signed by the District (as authorized by the District's Governing Board), the Contractor, and the Architect, stating their agreement upon (1) A description of a change in the Work, (2) The amount of the adjustment in the Contract Sum, if any; and (3) The extent of the adjustment in the Contract Time, if any. See Article 7.2.
- 1.1.8 <u>Change Order Request (COR)</u>. A COR is a written request supported by backup documentation prepared by the Contractor requesting that the District and the Architect issue a CO based

upon a proposed change, or a change that results in an adjustment in cost, time or both, or arising from an RFP, CCD or ICD. (See Article 7.6)

- 1.1.9 <u>Close-Out</u> means the process for Final Completion of the Project, but also includes the requirements for the DSA Certification that the Project is Complete (See DSA Certification Guide). See Article 9.9.
- 1.1.10 <u>Construction Change Directive (CCD).</u> A Construction Change Directive is a DSA term that is utilized to address changes to the DSA approved plans and specifications. There are two types of Construction Change Directives. (1) DSA approved CCD Category A (DSA Form 140) for work affecting Structural, Access or Fire-Life Safety of the Project which will require a DSA approval; and, (2) CCD Category B (DSA Form 141) for work NOT affecting Structural Safety, Access Compliance or Fire and Life Safety that will not require a DSA approval (except to confirm that no Approval is required). See Article 7.3.
- 1.1.11 <u>Complete</u> means that all Work in the Contract Documents is finished, the requirements of the Contract Documents have been met, the Project has been Closed Out, and all Work has ceased on the Project. This may also be referred to as Final Completion. In most cases, the recording of a Notice of Completion shall represent Completion of the Project. Beneficial Occupancy does not mean the Work is Complete.
- 1.1.12 <u>Completion Date</u> is the date when all Work for the Project shall be Substantially Complete and is the date assigned at the end of the Contract Time for the Project. See Article 1.1.46.
- 1.1.13 <u>Construction Manager.</u> The Construction Manager is a consultant to the District contracted to assist in Project planning, management and construction of the Project. If there is a Construction Manager, they may assist in various aspects of the Project including, but not limited to Monitoring the progress of the construction, reviewing and monitoring the schedule, progress of work, monitoring pay requests, facilitating communications, advising the District and its Board of Education on various aspects of the construction process, monitoring the RFI, COR, CCD, ICD, RFP, Claims, Disputes and other Project related processes.
- 1.1.14 <u>Contract or Agreement</u> when the terms are used in these General Conditions shall be references to the Contract Documents as defined herein.
- 1.1.15 The Contract Documents (sometimes referred to as Construction Documents) consist of the Agreement between District and Contractor (hereinafter the Agreement or Contract), Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications, Addenda issued prior to bid, instructions to bidders, notice to bidders, and the requirements contained in the Bid Documents, other documents listed in the Agreement, and Modifications issued after execution of the Contract. A Modification is a written amendment to the Contract signed by parties, a Change Order, a Construction Change Directive, or a written order for a minor change in the Work issued by the Architect. The Contract Documents collectively form the Contract. The Contract represents the entire and integrated Agreement between the parties hereto and supersedes prior negotiations, representations, or agreements, either written or oral. The Contract may be amended or modified only by a written Modification. The Contract Documents shall not be construed to create a contractual relationship of any kind between the Architect and Contractor, between the District and any Subcontractor or Sub-subcontractor, or between any persons or entities other than the District and the Contractor. The Architect shall, however, be entitled to performance

and enforcement of obligations under the Contract intended to facilitate performance of the Architect's duties.

- 1.1.16 <u>Contract Time</u> is the time period specified in the Contract Documents in which the Project shall be completed. This is sometimes referred to a Contract Duration, or "time in which the Contractor has to complete the Project". See Article 8.1.1
- 1.1.17 <u>Contractor, District, and Architect</u> are those mentioned as such in the Agreement. They are treated throughout the Contract Documents as if they are of singular number and neuter gender. Any reference to "Owner" shall mean "District" or Vallecitos School District.
- 1.1.18 <u>Cure</u> is the act of remedying a material failure to perform under the terms of the Contract Documents during the time provided to correct Contractor's Default. Specific time periods are provided to Cure and Correct a Contractor Default under Article 14 and for a Partial Default under Article 2.2 as well as elsewhere in the Contract Documents.
 - 1.1.19 <u>Days</u> means calendar days unless otherwise specifically stated.
- 1.1.20 <u>Default</u> is a material breach of Contract. A Termination for Cause under Article 14 is a declaration of Default of the Contract and shall act as a demand upon the Surety to perform under the terms of the Performance Bond. Partial Defaults may also be tendered to the Surety at District's discretion. See Article 2.2.
- 1.1.21 <u>Dispute</u>. A dispute is a disagreement on terms or conditions of the Project where the Contractor's opinion of the Project, Payment, Change Order or Request for Proposal differs from that of the District or Architect. A dispute only rises to the level of a claim once the dispute is assembled with back-up documentation and presented for evaluation. See Article 4.6
- 1.1.22 <u>District Representative</u> is the person designated by the District to represent the District during the Construction for the Project. This District representative shall have the delegated authority as further defined in Article 1.1.2. This District representative may be an employee of the District, and may also include Construction Managers who shall have the authorities as set forth in Article 1.1.13. In some cases, the District and its Board may be assisted by a Construction Manager. When a Construction Manager is assisting the District, the Contractor, Architect, and Inspector shall have a primary contact with the District's Construction Manager who will advise the District.
- 1.1.23 <u>Drawings</u> or Plans are graphic and pictorial portions of the Contract Documents prepared for the Project and approved changes thereto, wherever located and whenever issued, showing the design, location, and scope of the Work, generally including plans, elevations, sections, details, schedules, and diagrams as drawn or approved by the Architect. Sometimes Drawings will also be included in Addenda, Change Orders, and Specifications.
- 1.1.24 <u>DSA</u> is the Division of State Architect. DSA is the agency that provides design and construction oversight for K-12 Schools, Community Colleges, and State Funded Charter School Projects. DSA is the responsible agency for this Project and Contractor has submitted a bid for the Project since Contractor is familiar with Contractor's responsibilities under the DSA requirements more thoroughly set forth at Title 24 of the California Code of Regulations. Contractor agrees to abide by the jurisdiction of DSA and shall construct the Project to conform with the approved plans, specifications, Addenda, and

Change Orders (inclusive of approved CCD's and ICD's issued by the District pending CCD approval). The DSA website is at http://www.dgs.ca.gov/dsa.

- 1.1.25 <u>Emergency</u> shall be defined as a sudden, unexpected occurrence, involving a clear and imminent threat to the continuation of school classes, a critical path delay that will result in not being able to occupy the school when students arrive to use the facility, danger from the facility or from outside the facility, Act of God, or other action which requires immediate action to prevent or mitigate loss of, or damage to, life, health, property, or essential public services.
- 1.1.26 <u>Float</u> the total number of days an activity may be extended or delayed without delaying the Completion Date shown in the schedule. Float will fall into three categories: (1) Rain Days; (2) Governmental Delays; and, (3) Project Float. See Article 8.1.4.
- 1.1.27 <u>Immediate Change Directive.</u> (ICD) A written order prepared by the Architect and signed by the District and the Architect, directing a change in the Work where the Work must proceed immediately and stating a proposed basis for adjustment, if any, in the Contract Sum or Contract Time, or both. See Article 7.3
- 1.1.28 <u>Inspector of Record (IOR) or Project Inspector (PI)</u> is the individual retained by the District in accordance with Title 24 of the California Code of Regulations and who will be assigned to the Project
- 1.1.29 <u>Notice of Non-Compliance (DSA Form 154)</u> is a document issued by the Inspector if there is a deviation from the DSA approved Plans, Specifications, and Change Orders. See Article 7.1.2.
- 1.1.30 <u>Payment Application or Certificate of Payment</u> is the Contractor's certified representation of the actual level of Work performed on the Project. Payment Applications are sometimes also called "Certificates of Payment" and shall follow the Schedule of Values that are approved by the Architect, Inspector and District. See Article 9.3.
- 1.1.31 <u>The Project</u> is the complete construction of the Work performed in accordance with the Contract Documents.
- 1.1.32 <u>The Project Manual</u> is the volume assembled for the Work which may include, without limitation, the bidding requirements, sample forms, Conditions of the Contract, and Specifications.
 - 1.1.33 <u>Provide</u> shall include "provide complete in place," that is "furnish and install complete."
- 1.1.34 <u>Punch List</u> is a list of minor repair items, prepared after the issuance of a Certificate of Substantial Completion, by the Inspector and Architect of Work required in order to complete the Contract Documents and ensure compliance with the DSA Approved Plans so the Project may be Closed Out. Issuance of the Retention Payment is dependent of the proper completion of the Punch List. See Article 9.9.
 - 1.1.34.1 *Contractor's List of Punch Items* is a list of minor repair items the Contractor submits when the Contractor considers the Work Substantially Complete. Submission of this List of Incomplete Punch Items is the Contractor's representation that the project is Substantially Complete. See Article 9.9.1
- 1.1.35 A <u>Request for Information (RFI)</u> is a written request prepared by the Contractor requesting the Architect to provide additional information necessary to clarify or amplify an item which the

Contractor believes is not clearly shown or called for in the drawings or specifications, or to address problems which have arisen under field conditions. See Article 7.4.

- 1.1.36 A <u>Request for Proposal (RFP)</u> is a written request prepared by the Architect (and/or CM) requesting the Contractor to submit to an estimate of the effect of a proposed change on the Contract Price and (if applicable) the Contract Time. See Article 7.5.
- 1.1.37 <u>Safety Orders</u> are those issued by any city, county, state or federal agency having jurisdiction over the Project.
- 1.1.38 <u>Schedule</u> is the Contractor's view of the practical way in which the Work will be accomplished. In this Agreement there is a requirement for a Baseline Schedule and regular Schedule Updates that show all Work to be completed during the Contract Time and shall include all items listed under Article 8.3.2.9.1. See. Article 8 of the General Conditions.
- 1.1.39 <u>Schedule of Values</u> is a detailed breakdown of the Contract Price for each Project, building, Phase of Work or Site as determined by the District. This Schedule of Values shall adequately detail the price for the Work so Progress Payments Applications can be meaningfully reviewed by the Inspector, Architect of Record, Engineer of Record, and District. (See Article 9.2)
- 1.1.40 <u>Separate Contracts</u> are Contracts that the District may have with other Contractors, vendors, suppliers, or entities to perform Work on the Project. This may include, but is not limited to Multi-Prime Trade Contractors, furniture installers, testing agencies, clean-up contractors, or network or low voltage contractors. Contractor shall plan for certain other contractors that may also be working on the Project site and address these other contractors in Contractor's Schedule. See Article 6.
- 1.1.41 <u>Site</u> refers to the grounds of the Project as defined in the Contract Documents and such adjacent lands as may be directly affected by the performance of the Work.
- 1.1.42 <u>The Specifications</u> are that portion of the Contract Documents consisting of the written requirements for material, equipment, construction systems, instructions, quality assurance standards, workmanship, and performance of related services.
- 1.1.43 <u>Standards, Rules, and Regulations</u> referred to are recognized printed standards and shall be considered as one and a part of these specifications within limits specified. Federal, state and local regulations are incorporated into the Contract Documents by reference.
- 1.1.44 Stop Work Order, or an Order to Comply, is issued when either (1) the Work proceeds without DSA approval; (2)_the Work proceeds without a DSA Inspector of Record, or (3) where DSA determines that the Work is not being performed in accordance with applicable rules and regulations, and would compromise the structural integrity of the Project or would endanger lives. If a Stop Work Order is issued, the Work in the affected area shall cease until DSA withdraws the Stop Work Order. Pursuant to Education Code Section 17307.5(b) and Education Code Section 81133.5, the District shall not be held liable in any action filed against the District for any delays caused by compliance with the Stop Work Order
- 1.1.45 <u>Subcontractor</u>, as used herein, includes those having direct or indirect contracts with Contractor and ones who furnished labor, material or services for a special design according to plans, drawings, and specifications of this Work.
- 1.1.46 <u>Substantial Completion</u> is not reached unless and until each of the following three (3) conditions have been met: (1) all contractually required items have been installed with the exception of

only minor and Incomplete Punch Items (See Article 9.9.1.1); (2) All Fire/Life Safety Systems have been installed, and are working and signed off on the DSA Form 152 Inspection Card, all building systems including mechanical, electrical and plumbing are all functioning; and (3) the Project is fit for occupancy and its intended use. For the purposes of this Contract, any references to Completion Date means Substantial Completion Date.

- 1.1.47 <u>Substitution</u> is a change in product, material, equipment, or method of construction from those required by the Construction Documents proposed by the Contractor. For this Project, a Substitution is subject to the filing of a Construction Substitution Request Form at the time of bid and meeting the requirements of Article 3.10.
- 1.1.48 <u>Supplementary Conditions or Special Conditions</u> are terms that are sometimes used interchangeably. In this set of General Conditions, the term used shall be Supplementary Conditions. However, specifications or other documents may reference Special Conditions, which shall mean the same and Supplementary Conditions.
- 1.1.49 <u>Surety</u> is the person, firm, or corporation that executes as a bid bond, payment bond or performance bond guarantor on the Contractor's Bid, Contractor's Performance on the Contract and Payment of the Contractor's subcontractors, material suppliers, vendors and labor on the Project. The Surety is bound to the same extent as the Contractor is bound once a Default occurs. A default includes a Termination for Subtantial Failure to Perform under Article 14, but also includes any breach of Contract and is subject to the requirements and responsibilities as set forth in the Performance Bond.
- 1.1.50 Work shall include all labor, materials, services and equipment necessary for the Contractor to fulfill all of its obligations pursuant to the Contract Documents. It shall include the initial obligation of any Contractor or Subcontractor who performs any portion of the Work, to visit the Site of the proposed Work (a continuing obligation after the commencement of the Work), to fully acquaint and familiarize itself with the conditions as they exist and the character of the operations to be carried out under the Contract Documents, and make such investigation as it may see fit so that it shall fully understand the facilities, physical conditions, and restrictions attending the Work under the Contract Documents. Each such Contractor or Subcontractor shall also thoroughly examine and become familiar with the Drawings, Specifications, and associated Contract Documents and bid documents before preparing and submitting any bid.
 - 1.1.51 Workers include laborers, workers, and mechanics.

1.2 EXECUTION, CORRELATION AND INTENT

1.2.1 Correlation and Intent

1.2.1.1 Documents Complementary and Inclusive. The Contract Documents are complementary and are intended to include all items required for the proper execution and completion of the Work. All Contract Documents form the Contractor's Contract with the District. Any item of Work mentioned in the Specifications and not shown on the Drawings, or shown on the Drawings and not mentioned in the Specifications, shall be provided by Contractor as if shown or mentioned in both. The Contractor is bound to provide the Work complete and is under a legal duty to carefully study plans and schedule operations well ahead of time and identify inconsistencies with the plans and specifications and call such inconsistencies to the attention of the Architect or Registered Engineer through the Inspector under Article 4-343(b) of Title 24.

- 1.2.1.2 Work to be Complete. Contractor has thoroughly studied the Contract Documents and understands that the District contracted with Contractor to provide a complete Project which means complete systems and buildings. The entire set of Contract Documents shows a complete Project and Contractor agrees that there are multiple disciplines putting together a set of Contract Documents. Thus, if portions of a system are shown on some drawings and not others, this does not mean the Contractor is to only provide part of a system. For example, if an air conditioning unit is shown on the mechanical drawings, the plumbing for the air conditioning is shown on another drawing, and the electrical shown on the electrical drawings, the Contractor is to provide a complete and working air conditioning system. The only time when an item is supplied incomplete is if the system is shown specifically as incomplete since others will be completing the system. Work includes, but is not limited to materials, workmanship, and manufacture of fabrication of components for the Project.
- 1.2.1.3 Coverage of the Drawings and Specifications. The Drawings and Specifications generally describe the Work to be performed by Contractor. Generally, the Specifications describe Work which cannot be readily indicated on the Drawings and indicate types, qualities, and methods of installation of the various materials and equipment required for the Work. It is not intended to mention every item of Work in the Specifications, which can be adequately shown on the Drawings, or to show on the Drawings all items of Work described or required by the Specifications even if they are of such nature that they could have been shown. All materials or labor for Work, which is shown on either the Drawings or the Specifications (or is reasonably inferable therefrom as being necessary to complete the Work), shall be provided by the Contractor. The Contractor is responsible for the whole Project as contractually set forth as the Contract Documents. It is intended that the Work be of sound, quality construction, and the Contractor shall be responsible for the inclusion of adequate amounts to cover installation of all items indicated, described, or implied in the portion of the Work to be performed by them.
- 1.2.1.4 *Conflicts*. In the event there is a discrepancy between the various Contract Documents, it is intended that the more stringent, higher quality, and greater quantity of Work shall apply.
- 1.2.1.5 *Conformance with Laws*. Each and every provision of law required by law to be inserted in this Contract shall be deemed to be inserted herein, and the Contract shall be read and enforced as though it were included herein, even if through mistake or otherwise any such provision is not inserted, or is not correctly inserted.

Before commencing any portion of the Work, Contractor shall check and review the Drawings and Specifications for such portion for conformance and compliance with all laws, ordinances, codes, rules and regulations of all governmental authorities and public and municipal utilities affecting the construction and operation of the physical plant of the Project, all quasi-governmental and other regulations affecting the construction and operation of the physical plant of the Project, and other special requirements, if any, designated in the Contract Documents. Such checking shall include review of Title 24 of the California Code of Regulations, California Building Code, local utility, local water connection, local grading and all other applicable agencies. In the event Contractor observes any violation of any law, ordinance, code, rule or regulation, or inconsistency with the Contract Documents, Contractor shall, within five (5) days, notify the Inspector, Architect and District in writing of same and shall ensure that any such violation or inconsistency shall be corrected in the manner provided hereunder prior to the construction of that portion of the Project. (See Title 24 Section 4-343)

The Contractor shall bear all expenses of correcting Work done contrary to said laws, ordinances, rules, and regulations if the Contractor performed same (1) without first consulting the Architect for further instructions regarding said Work or (2) disregarded the Architect's instructions regarding said Work.

- 1.2.1.6 Ambiguity and Inconsistency. Before commencing any portion of the Work, Contractor shall carefully examine all Drawings and Specifications and other information given to Contractor as to materials and methods of construction and other Project requirements. Prior to commencing any portion of the Work, Contractor shall notify Architect and District in writing of any perceived or alleged error, inconsistency, conflict, ambiguity, or lack of detail or explanation in the Drawings and Specifications in the manner provided herein. If the Contractor or its Subcontractors, material or equipment suppliers, or any of their officers, agents, and employees performs, permits, or causes the performance of any Work under the Contract Documents, which it knows or should have known to be in error, inconsistent, or ambiguous, or not sufficiently detailed or explained, Contractor shall bear any and all costs arising therefrom including, without limitation, the cost of correction thereof without increase or adjustment to the Contract Price or the time for performance. Contractor shall maintain an adequate inspection system and perform personal observations and review work and pre-plan the project to ensure the Work performed under the Contract conforms to Contract requirements. Contractor shall maintain records of such review and observation to ensure strict compliance with the terms of the Contract.
- 1.2.1.7 *Typical Parts and Sections.* Whenever typical parts or sections of the Work are completely detailed on the Drawings, and other parts or sections which are of the same construction are shown in outline only, the complete or more detailed shall apply to the Work which is shown in outline.
- 1.2.1.8 *Dimensions*. Dimensions of Work shall not be determined by scale or rule. Figured dimensions shall be followed at all times. If figured dimensions are lacking on Drawings, Architect shall supply them on request. The Architect's decisions on matters relating to aesthetic effect will be final.

1.2.2 <u>Addenda and Deferred Approvals</u>

- 1.2.2.1 Addenda are the changes in specifications, drawings, Contract Documents, and plans which have been authorized in writing by the District or Architect, and which alter, explain, or clarify the Contract Documents. Addenda shall govern over all other Contract Documents. Subsequent addenda issued shall govern over prior addenda unless otherwise specified in the addenda.
- Deferred Approvals. Deferred Approvals are Submittals that are reviewed by 1.2.2.2 the Architect (or Engineer of Record) and submitted to DSA for approval based on thorough detailing of manufacturer and Project specific design. See Article 3.9.1 and 3.9.3. The Deferred Approval item cannot be fully detailed on the originally approved Drawings or Specifications because of variations in product design and manufacture. Contract Documents which require Deferred Approval items are meant to be for illustration purposes only. Approval of plans for such a portion of the Work may be deferred until the material suppliers and subcontractors are selected. All Deferred Approvals are noted in the Plans and Specifications. Contractor is responsible for all Deferred Approval requirements set forth in the Contract Documents. Contractor is responsible to comply with all laws, building codes, Title 24 and regulations necessary to obtain all necessary approvals, including those required from the Division of the State Architect ("DSA") and the State Fire Marshall. Contractor shall not be granted an extension of time for failure to plan, schedule for and obtain necessary approvals. Contractor shall Schedule all deferred approval items in the Baseline Schedule and Schedule Updates under Article 3.9.6

1.2.3 Specification Interpretation

- 1.2.3.1 *Titles*. The Specifications are separated into titled sections for convenience only and not to dictate or determine the trade or craft involved.
- 1.2.3.2 As Shown, Etc. Where "as shown," "as indicated," "as detailed," or words of similar import are used, reference is made to the Drawings accompanying the Specifications unless

otherwise stated. Where "as directed," "as required," "as permitted," "as authorized," "as accepted," "as selected," or words of similar import are used, the direction, requirement, permission, authorization, approval, acceptance, or selection by Architect is intended unless otherwise stated.

- 1.2.3.3 *General Conditions*. The General Conditions and Supplementary General Conditions are a part of the Contract Documents which further defines and refines the Contract entered between the Contractor and District.
- 1.2.3.4 *Abbreviations*. In the interest of brevity, the Specifications are written in an abbreviated form and may not include complete sentences. Omission of words or phrases such as "Contractor shall," "shall be," etc., are intentional. Nevertheless, the requirements of the Specifications are mandatory. Omitted words or phrases shall be supplied by inference in the same manner as they are when a "note" occurs on the Drawings. In the interest of brevity, the Contract Documents frequently omit modifying words such as "all" and "any" and articles such as "the" and "an," but the fact that a modifier or an article is absent from one statement and appears in another is not intended to affect the interpretation of either statement.
- 1.2.3.5 *Plural*. Words in the singular shall include the plural whenever applicable or the context so indicates.
- 1.2.3.6 *Metric*. The Specifications may indicate metric units of measurement as a supplement to U.S. customary units. When indicated thus: 1" (25 mm), the U.S. customary unit is specific, and the metric unit is nonspecific. When not shown with parentheses, the unit is specific. The metric units correspond to the "International System of Units" (SI) and generally follow ASTM E 380, "Standard for Metric Practice."
- 1.2.3.7 Standard Specifications. Any reference to standard specifications of any society, institute, association, or governmental authority is a reference to the organization's standard specifications, which are in effect at the date of the Contractor's proposal unless directed otherwise. If applicable specifications are revised prior to completion of any part of the Work, the Contractor may, if acceptable to Architect, perform such Work in accordance with the revised specifications. The standard specifications, except as modified in the Specifications for the Project, shall have full force and effect as though printed in the Specifications. Architect will furnish, upon request, information as to how copies of the standard specifications referred to may be obtained.

1.2.4 Rules of Document Interpretation

- 1.2.4.1 In the event of conflict within the Drawings, the following rules shall apply:
 - a. General Notes, when identified as such, shall be incorporated into other portions of Drawings.
 - b. Schedules, when identified as such, are complementary with other notes and other portions of Drawings including those identified as General Notes.
 - c. Larger scale drawings shall take precedence over smaller scale drawings.
 - d. At no time shall the Contractor base construction on scaled drawings.

- 1.2.4.2 Specifications shall govern as to materials, workmanship, and installation procedures.
- 1.2.4.3 If Contractor observes that Drawings and Specifications are in conflict, Contractor shall, prior to commencing work, notify the Architect in writing for the purposes of obtaining an interpretation of the Contact Documents.
- 1.2.4.4 In the case of conflict or inconsistencies, the order of precedence shall be as follows:
 - a. General Conditions take precedence over Drawings and Specifications.
 - b. Supplemental Conditions take precedence over General Conditions.
 - c. The Agreement Form shall take precedence over the Supplemental Conditions.
 - d. In the case of disagreement or conflict between or within Specifications, and Drawings, the more stringent, higher quality, and greater quantity of Work shall apply.
 - e. Addenda shall take precedence over Drawings and Specifications.
 - f. General Conditions shall take precedence over Addenda.
 - g. Drawings and Specifications take precedence over the Soils Report.

1.3 <u>OWNERSHIP AND USE OF ARCHITECT'S DRAWINGS, SPECIFICATIONS AND OTHER DOCUMENTS</u>

The Drawings, Specifications, and other Contract Documents for the Project are the property of the District and/or Architect pursuant Contract requirements between the District and Architect. The Contractor may retain one Contract record set. 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. All copies except the Contractor's record set, shall be returned or properly accounted for upon completion of the Work. The Drawings, Specifications, and other documents prepared by the Architect, and copies thereof furnished to the Contractor are not to be used by the Contractor or any Subcontractor, Sub-subcontractor, or material or equipment supplier on other projects or for additions to this Project outside the scope of the Work. The District and/or Architect hereby grants the Contractor, Subcontractors, Sub-subcontractors, and material or equipment suppliers a limited license to use applicable portions of the Drawings, Specifications, and other documents prepared for the Project in the execution of their Work under the Contract Documents. Submittal or distribution to meet official regulatory requirements or for other purposes in connection with this Project is not to be construed as publication in derogation of the District's property interest or other reserved right.

ARTICLE 2 DISTRICT

2.1 <u>INFORMATION AND SERVICES REQUIRED OF THE DISTRICT</u>

2.1.1 <u>Site Survey</u>

The District will furnish, at its expense, a legal description of the Site and a land survey showing the boundaries of the Site. Contractor shall be responsible for all surveys regarding location of construction, grading and site work.

2.1.2 Soils

When required by the scope of the Project, the District will furnish, at its expense, the services of geotechnical engineers or consultants when reasonably required and deemed necessary by the Architect or as required by local or state codes. Such services, with written reports and appropriate written professional recommendations, may include test boring, test pits, soil bearing values, percolation tests, air and water pollution tests, and ground corrosion and resistivity tests, including necessary operations for determining subsoil, air, and water conditions.

2.1.3 <u>Soil Report part of the Contract Documents: Contractor Reliance</u>

A soils investigation report has been obtained from test holes at the Site, and such report is incorporated into this Contract and made available for the Contractor's use in preparing its bid and Work under this Contract. Where the Plans and Specifications are more specific and provide more significant structure, systems, reinforcing, thicknesses, or construction methods, the drawings shall control over the soils report. The soils report is available at the Architect's office for review and it is Contractor's responsibility to ensure that Contractor has reviewed the soils investigation report. Any information obtained from such report or any other information given on Drawings as to subsurface soil condition or to elevations of existing grades or elevations of underlying rock is approximate only. If, during the course of Work under this Contract, Contractor encounters subsurface conditions which differ materially from those indicated in the soils report, then Contractor shall notify the District within five (5) calendar days of discovery of the condition, and changes to the Contract price may be made in accordance with Article 7 entitled "Changes in the Work." Contractor agrees that no claim against District will be made by Contractor for damages and hereby waives any rights to damages in the event the Contractor fails to notify District within the five-day period mentioned above.

WARNING: DISTRICT DOES NOT WARRANT THE SOILS AT THE PROJECT SITE. CONTRACTOR HAS REVIEWED AND IS FAMILIAR WITH THE REQUIREMENTS OF THE SOILS INVESTIGATION REPORT. CONTRACTOR UNDERSTANDS THAT PLANS, DRAWINGS AND SPECIFICATIONS SUPERSEDE THE SOILS REPORT IF THERE ARE CONFLICTS. FURTHER, IN ADDITION TO THE INFORMATION IN THE SOILS REPORT, CONTRACTOR HAS CONDUCTED AN INDEPENDENT INVESTIGATION OF THE PROJECT SITE AND THE SOILS CONDITIONS OF THE SITE. DISTRICT DOES NOT WARRANT THE SOILS CONDITIONS OF THE SITE AND CONTRACTOR IS FULLY RESPONSIBLE TO ASCERTAIN SITE CONDITIONS FOR THE PURPOSES OF DETERMINING CONSTRUCTION MEANS AND METHODS PRIOR TO COMMENCING CONSTRUCTION.

2.1.4 Utilities

- 2.1.4.1 Location of Point of Connection. The locations shown for the point of connection are approximate. It shall be the responsibility of the Contractor to determine the exact location of all service connections.
- 2.1.4.2 Regional Notification Center. Contractor, except in an emergency, shall contact the appropriate regional notification center at least two (2) working days prior to commencing any excavation if the excavation will be conducted in an area or in a private easement which 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. See Government Code Section 4216.3. No excavation shall be commenced and carried out by the Contractor unless such an inquiry identification number has been assigned to the Contractor or any subcontractor of the Contractor and the District has been given the identification number by the Contractor. Any damages arising from failure to make appropriate regional notification shall be at the sole risk of Contractor. Contractor shall solely be responsible for any fines, penalties or damages for violation of this Article and Government Code Section 4216.6 or 4216.7. Any delays caused by failure to make appropriate regional notification shall be at the sole risk of Contractor and shall not be considered for extension of time pursuant to Paragraph 8.4.
- 2.1.4.3 *Utilities Removal and Restoration.* The District has endeavored to determine the existence of utilities at the Site of the Work from the records of the District of known utilities in the vicinity of the Work. The positions of these utilities as derived from such records are shown in the Contract Documents. Thus, the locations of the Main or Trunklines located on the Drawings are approximate locations and not exact.

No excavations were made to verify the locations shown for underground utilities. Other than the Main or Trunkline, which the District has endeavored to locate on the plans, service connections or laterals to these utilities may not be shown on the plans. It shall be the responsibility of the Contractor to determine the exact location of all service connections. The Contractor shall make its own investigations, including exploratory excavations, to determine the locations and type of service connections, prior to commencing work which could result in damage to such utilities. The Contractor shall immediately notify the District's representative as to any utility Main or Trunkline discovered by Contractor in a different position than provided by the Regional Notification Center. With respect to Main or Trunklines, Contractor is to immediately notify District if the location is substantially different than as shown in the Contract Documents.

Contractor shall coordinate its Work with all utilities, including, but not limited to electricity, water, gas and telephone and meet with said utilities prior to the start of any work. Contractor shall show timing of all utility coordination activities under the Scheduling requirements of Article 8.

2.1.4.4 *Other Utilities*. In case it should be necessary to remove, relocate, or temporarily maintain a utility because of interference with the Work, the work on the utility shall be performed and paid for as follows:

When it is necessary to remove, relocate or temporarily maintain a service connection, the cost of which is not required to be borne by the owner of the service connection, the Contractor shall bear all expenses incidental to the work on the service connection. The work on the service connection shall be done in a manner satisfactory to the owner thereof; it being understood that the owner of the service connection has the option of doing such work with his own forces or permitting the work to be done by the Contractor.

When it is necessary to remove, relocate, or temporarily maintain a utility which is in the position shown on the plans, the cost of which is not required to be borne by the owner thereof, the Contractor shall bear all expenses incidental to the work on the utility. The work on the utility shall be done in a manner satisfactory to the owner thereof; it being understood that the owner of the utility has the option of doing such work with his own forces or permitting the work to be done by the Contractor.

When it is necessary to remove, relocate, or temporarily maintain a utility which is not shown on the plans or is in a position different from that shown on the plans and were it in the position shown on the plans would not need to be removed, relocated, or temporarily maintained, and the cost of which is not required to be borne by the owner thereof, the District will make arrangements with the owner of the utility for such work to be done at no cost to the Contractor, or will require the Contractor to do such work in accordance with Article 7 or will make changes in the alignment and grade of the Work to obviate the necessity to remove, relocate, or temporarily maintain the utility. Changes in alignment and grade will be ordered in accordance with Article 7 herein.

No representations are made that the obligations to move or temporarily maintain any utility and to pay the cost thereof is or is not required to be borne by the owner of such utility, and it shall be the responsibility of the Contractor to investigate to find out whether said cost is required to be borne by the owner of the utility.

The right is reserved to governmental agencies and to owners of utilities to enter at any time upon any street, alley, right-of-way, or easement for the purpose of making changes in their property made necessary by the Work and for the purpose of maintaining and making repairs to their property.

2.1.5 Existing Utility Lines; Removal, Relocation

2.1.5.1 *Main or Trunkline Facilities*. If the Contractor while performing the Contract discovers utility facilities not identified in the Contract Documents, Contractor shall notify the District and utility in writing prior to commencing work.

The owner of the public utility shall have the sole discretion to perform repairs or relocation work or permit the Contractor to do such repairs or relocation work at a reasonable price.

The Contractor shall exercise reasonable care and shall be compensated by the District for the actual verified field costs of locating, and removing, relocating, protecting or temporarily maintaining such main or trunkline utility facilities located in a substantially different location than in the plans and specifications, and for equipment in use on the project necessarily idled during such work. This Work shall be performed in accordance with Article 7 of these General Conditions.

- 2.1.5.2 Assessment. Nothing in these subparagraphs shall be deemed to require the District to indicate the presence of existing service laterals or appurtenances whenever the presence of such utilities on the Site can be inferred from the presence of other visible facilities, such as buildings, or meter junction boxes on or adjacent to the Site and could be inferred from the Main or Trunkline shown on the Drawings.
- 2.1.5.3 *Notification.* If the Contractor, while performing Work under this Contract, discovers utility facilities not identified by the District in the Contract Documents. Contractor shall, within five (5) days, notify the District and the utility in writing. If Contractor fails to notify the District within forty eight hours after discovery of any utility facilities not identified by District in the Contract Documents,

Contractor waives all rights to be compensated for any extra Work or damages resulting from such discovered utilities.

2.1.6 <u>Easements</u>

District shall secure and pay for easements for permanent structures or permanent changes in existing facilities, if any, unless otherwise specified in the Contract Documents.

2.2 <u>DISTRICT'S RIGHT TO CARRY OUT THE WORK DUE TO PARTIAL DEFAULT IN A SPECIFIC SEGREGATED AREA OF WORK (48 HOUR NOTICE TO CURE AND CORRECT)</u>

If the Contractor Defaults or neglects to carry out the Work in accordance with the Contract Documents, the District may provide forty-eight (48) hour written notice to cure (a shorter period of time in the case of Emergency or a critical path delay as defined in Article 2.2.1) Contractor's Partial Default in a specific segregated area of work. The District's right to issue a Partial Default of the Contractor's Work and take over that segregated area of Work includes, but is not limited to:

- 1. Failure to supply adequate workers on the entire Project or any part thereof;
- 2. Failure to supply a sufficient quantity of materials;
- 3. Failure to perform any provision of this Contract;
- 4. Failure to comply with safety requirements, or due to Contractor is creation of an unsafe condition;
- 5. Cases of bona fide emergency;
- 6. Failure to order materials in a timely manner;
- 7. Failure to prepare deferred-approval items or Shop Drawings in a timely manner;
- 8. Failure to comply with Contractor's Baseline or Update Schedule, meet critical Milestones which would result in a Delay to the Critical Path, or Delay the Contract Time;
- 9. Failure to comply with the Subletting and Subcontracting Fair Practices, Public Contract Code section 4100, et seq.
- 10. Failure to meet the requirements of the American's with Disabilities Act;
- 11. Failure to complete Punch List work;
- 12. Failure to proceed on an Immediate Change Directive
- 13. Failure to correct a Notice of Deviation

If during the forty eight (48) hour period, the Contractor fails to Cure and correct the deficiency noted in the 48 hour notice of Partial Default with diligence and promptness, the District may correct such deficiencies without prejudice to other remedies the District may have, including a Termination for Cause as set forth in Article 14. If there are inadequate funds remaining the Project balance or in the Retention Escrow to address at least 150% of the costs set forth in the Article 2.2 notice, the District may copy the

Surety on the written notice of Partial Default. If a notice to the Surety is provided, except in the cases of Emergency or Critical Path Delay, the Surety has the option to take over and complete the Work described in the written notice if Surety personally delivers notice to District that it intends to perform such work. In the case where written notice has been provided, the District shall allow Surety seven (7) days to perform the Work.

2.2.1 Service of Notice of Partial Default with Right to Cure

A written notice of Partial Default and right to Cure under Article 2.2 ("Article 2.2 Notice" or "Notice of Partial Default") shall be served by e-mail (with a copy provided by regular mail) to the e-mail address provided on the Bid submitted and copied to the Project Superintendent.

2.2.2 <u>Shortened Time for Partial Default in the Case of Emergencies.</u>

In an Emergency situation, the District may correct any of the deficiencies described in Article 2.2 without prejudice to other remedies by providing service of written notice of Emergency requiring a shortened time for Partial Default specifying the time given to Cure, if any.

2.2.3 Shortened Time for Partial Default in the Case of Critical Path Delay

In the case of critical path delay, the District may correct any of the deficiencies described in Article 2.2 without prejudice to other remedies providing service of written notice of Critical Path Delay to the Contractor with a specific description of the critical path delay items noting the line item or area of Work that is on the Critical Path and prescribe the length of shortened time to Cure, if any.

2.2.4 Written Notice of Partial Default to be Deducted by Deductive Change Order

The District shall have the right to determine the reasonable value of the Article 2.2 Partial Default Work, or if there is an actual value for the Work, shall use that value and issue a Deductive Change Orders under Article 7.7.4.

ARTICLE 3 THE CONTRACTOR

3.1 SUPERVISION AND CONSTRUCTION PROCEDURES

3.1.1 <u>Contractor</u>

The Contractor shall continually supervise and direct the Work using the Contractor's best skill and attention. The Contractor shall be solely responsible for and have control over construction means, methods, techniques, sequences, procedures; and shall coordinate all portions of the Work under the Contract, unless the Contract Documents give other specific instructions concerning these matters. The Contractor shall not perform the Work without utilizing the Contract Documents or, where required, approved Submittals, Shop Drawings, or Samples for any such portion of the Work. If any of the Work is performed by contractors retained directly by the District, Contractor shall be responsible for the coordination and sequencing of the work of those other contractors so as to avoid any impact on the Project Schedule pursuant to the requirements of Article 6 and Article 8. Specific duties of the Contractor shall include those set out in Section 43 of Title 21 of the California Code of Regulations and Section 4-343 of Title 24 of the California Code of Regulations. These duties include, but are not limited to the following:

- 1. Responsibilities. It is the duty of the Contractor to complete the Work covered by his or her Contract in accordance with the approved Plans and Specifications. The Contractor in no way is relieved of any responsibility by the activities of the Architect, Engineer, Inspector or DSA in the performance of their duties.
- 2. *Performance of the Work*. The Contractor shall carefully study the approved Plans and Specifications and shall plan its schedule of operations well ahead of time. If at any time it is discovered that work is being done which is not in accordance with the approved plans and specifications, the Contractor shall correct the Work immediately.

3.1.2 Contractor Responsibility to Study the Plans and Specifications

All inconsistencies or timing or sequences which appear to be in error in the Plans and Specifications shall promptly be called to the attention of the Architect or, Engineer, for interpretation or correction. Local conditions which may affect the structure shall be brought to the Architect's attention at once. In no case, shall the instruction of the Architect be construed to cause work to be done which is not in conformity with the approved plans, specifications, change orders, construction change directives, and as required by law. (See Title 24 Section 4-343)

3.1.3 All Work Under the Direction of Inspector

Pursuant to Title 24 requirements, the Contractor shall not carry on Work except with the knowledge of the Inspector. (See Title 24 generally)

3.1.4 Contractor to Establish Timing and Protocol with Inspector

Contractor shall establish a protocol for requesting inspection with Inspector so as to not delay the Work and provide adequate time for the Inspector to perform inspection. If such a protocol is not established ahead of time, Inspector may utilize the time criteria set by Title 24 of 48 hours in advance of submitting form DSA 156 for each new area. DSA requirements under PR 13-01 specifically gives the Special Inspector fourteen (14) days to post to the DSA website. Contractor is responsible for delays and for failure to plan.

For some Projects, there may be a need to incrementally install certain assemblies. It is up to Contractor to identify areas and assemblies that may be constructed incrementally. Contractor must identify and establish incremental areas of construction and establish protocols with Inspector for DSA 152 approvals so they may be presented to DSA. See PR-13 item 1.17 for further discussion.

3.1.5 <u>Verified Reports</u>

The Contractor shall make and submit to the office from time to time, verified reports as required in Title 24 Section 4-366. As part of the Close-Out of the Project (see Article 9.9), Contractor shall be required to execute a Form 6-C as required under Title 24 Sections 4-343.

Contractor shall fully comply with any and all reporting requirements of Education Code Sections 17315, et seq., in the manner prescribed by Title 24, as applicable.

3.1.6 <u>Contractor Responsibility</u>

The Contractor shall be responsible to the District for acts and omissions of the Contractor's employees, Subcontractors, material and equipment suppliers, and their agents, employees, invitees, and other persons performing portions of the Work under direct or indirect contract with the Contractor or any of its Subcontractors.

3.1.7 Obligations not Changed by Architect's Actions

The Contractor shall not be relieved of obligations to perform the Work in accordance with the Contract Documents either by activities or duties of the Architect in the Architect's administration of the Contract or by tests, inspections, or approvals required or performed by persons other than the Contractor.

3.1.8 Acceptance/Approval of Work

The Contractor shall be responsible to determine when any completed portions of the Work already performed under this Contract or provided pursuant to Article 6 are suitable to receive subsequent Work thereon.

3.2 SUPERVISION

3.2.1 Full Time Supervision

Unless personally present on the Project site where the Work is being performed, the Contractor shall keep on the Work at all times during its progress a competent, English speaking construction Superintendent satisfactory to the District. The Superintendent shall be present on a full-time basis, shall be dedicated exclusively to the Project and shall not share superintendency duties with another project or job. The Superintendent shall not be replaced except with written consent of the District. The Superintendent shall represent the Contractor in its absence and shall be fully authorized to receive and fulfill any instruction from the Architect, the Inspector, the District or any other District representative (including CM in the cases where the District has a CM representative). All Requests for Information shall be originated by the Superintendent and responses thereto shall be given to the Superintendent. No Work shall begin on any day by any Subcontractor or other person on the Project site until the Superintendent has arrived, or shall any Work continue during the day after the Superintendent has departed from the Project site. The Superintendent shall have authority to bind Contractor through the Superintendent's acts. The Superintendent shall represent the Contractor, and communications given to the Superintendent shall be

binding on the Contractor. Before commencing the Work, Contractor shall give written notice to District (and CM representative) and Architect of the name and a Statement of Qualifications of such superintendent. Superintendent shall not be changed except with written consent of District, unless a superintendent proves to be unsatisfactory to Contractor and ceases to be in its employ, in which case, Contractor shall notify District and Architect in writing. Contractor shall provide a replacement superintendent approved by the District prior to performing additional work.

3.2.2 Staff

Notwithstanding other requirements of the Contract Documents, the Contractor and each Subcontractor shall: (1) furnish a competent and adequate staff as necessary for the proper administration, coordination, supervision, and superintendence of its portion of the Work; (2) organize the procurement of all materials and equipment so that the materials and equipment will be available at the time they are needed for the Work; and (3) keep an adequate force of skilled and fit workers on the job to complete the Work in accordance with all requirements of the Contract Documents.

3.2.3 Right to Remove

District shall have the right, but not the obligation, to require the removal from the Project of any superintendent, staff member, agent, or employee of any Contractor, Subcontractor, material or equipment supplier.

3.3 LABOR AND MATERIALS

3.3.1 Contractor to Provide

Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for labor, material, equipment, tools, construction equipment and machinery, water, heat, air conditioning, utilities, transportation, and other facilities, services and permits necessary for proper execution and completion of the Work whether temporary or permanent and whether or not incorporated or to be incorporated in the Work.

3.3.2 Quality

Unless otherwise specified, all materials and equipment to be permanently installed in the Project shall be new and shall be of the highest quality or as specifically stated in the Contract Documents. The Contractor shall, if requested, furnish satisfactory evidence as to kind and quality of all materials and equipment within ten (10) days of a written request by the District, including furnishing the District with bona fide copies of invoices for materials or services provided on the Project. All labor shall be performed by workers skilled in their respective trades, and shall be of the same or higher quality as with the standards of other school construction.

3.3.3 Replacement

Any work, materials, or equipment, which do not conform to these requirements or the standards set forth in the Contract Documents, may be disapproved by the District, in which case, they shall be removed and replaced by the Contractor at no additional cost or extension of time to the District.

3.3.4 <u>Discipline</u>

The Contractor shall enforce strict discipline and good order among the Contractor's and Subcontractor's employees, and other persons carrying out the Contract. The Contractor shall not permit employment of unfit persons or persons not skilled in tasks assigned to them. As used in this subsection, "unfit" includes any person who the District concludes is improperly skilled for the task assigned to that person, who fails to comply with the requirements of this article, or who creates safety hazards which jeopardize other persons and/or property.

3.3.5 <u>Fingerprinting (Applicable at the time Project is Occupied and on all Projects where</u> Workers will come in Contact with Pupils, such as Modernization Projects)

If applicable, Contractor shall comply with the applicable provisions of Education Code Section 45125.1 in a method as determined by the District. Pursuant to Education Code section 45125.1, Contractor shall either conduct criminal background checks of all employees of Contractor assigned to the Project site, and shall certify that no employees who have been convicted of serious or violent felonies, as specified in Education Code Section 45125.1, will have contact with pupils, by utilizing the Certification Regarding Background Checks and the corresponding Attachment "A" as found in the Contract Documents or shall be separated by a physical barrier from students.

If it is determined that Contractor must provide certification of employees, as part of such certification, Contractor must provide the District with a list of all employees providing services pursuant to this Agreement, and designate which sites such employees will be assigned. In performing the services set forth in this Agreement, Contractor shall not utilize any employees who are not included on the above-referenced list.

At District's sole discretion, District may make a finding, as authorized under Education Code section 45125.1, that Contractor's employees will have only "limited contact" with pupils. Contractor's failure to comply with this law shall be considered a material breach of this Agreement upon where this Agreement may be terminated, at District's sole discretion, without any further compensation to Contractor.

In the case of new construction Projects where there are no students, if the Project Schedule provides for Beneficial Occupancy or portions of the Project or if the Project should be delayed, then Contractor, at no additional costs, shall meet the requirements of either fingerprinting or providing a physical barrier as required by the District.

3.3.6 Noise, Drugs, Tobacco, and Alcohol

Contractor shall take all steps necessary to insure that employees of Contractor or any of its subcontractors' employees do not use, consume, or work under the influence of any alcohol, tobacco or illegal drugs while on the project. Contractor shall further prevent any of its employees or its subcontractor employees from playing any recorded music devices or radios or wearing any radio headphone devices for entertainment while working on the project. Likewise, Contractor shall prevent its employees or subcontractor's employees from bringing any animal onto the project. Contractors shall not violate any written school policies.

3.3.7 <u>Delivery of Material</u>

Contractor shall place orders for materials or equipment so that the Work may be completed in accordance with the Construction schedule for the Work as set forth in Article 8 of this

Agreement. Contractor shall, upon demand from the Architect, furnish to the Architect documentary evidence including, but not limited to purchase orders, invoices, bills of materials, work orders and bills of lading, showing that orders have been placed. Contractor shall have a system to receive materials and to ensure that the proper materials are being delivered, including in the case of critical materials to the Project, checking the delivery against Shop Drawings and ensuring that the materials meet the requirements of not only the plans and specifications, but also the approved Shop Drawings and Submittals and in conformance with Contractor's plan for delivery of materials (including but not limited to Contractor's representations in the Schedules for the Project and Contractor's equipment and materials schedule under Article 3.7.2.2). Contractor shall be responsible for all costs of accepting non-conforming materials delivered to the Project given Contractor's responsibilities and system for acceptance of deliveries. Contractor shall notify Inspector and District Representative (including CM) as early as possible, in writing, of the delivery of materials for the Project. The deliveries shall include documentation identifying the shipment sufficiently so that the Inspector, Architect or District Representative (including CM) may review the materials that are received.

Under no circumstances shall materials be delivered to the Project site that are meant for another Project.

3.3.8 Liens and Other Security Interests of Subcontractors and Material Suppliers

No material, supplies, or equipment for the Work shall be purchased subject to any chattel mortgage or under a conditional sale or other agreement by which an interest therein or in any part thereof is retained by seller or supplier. Contractor warrants good title to all material, supplies, and equipment installed or incorporated in Work and agrees upon completion of all Work to deliver premises, together with all improvements and appurtenances constructed or placed thereon by it, to District free from any claims, security interests, 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 this Contract shall have any right to place a lien upon the premises or any improvement or appurtenance thereof, except that Contractor may install metering devices or other equipment of a utility company or political subdivision, title to which is commonly retained by the utility company or political subdivision. In event of installation of any such metering device or equipment, Contractor shall advise District as to its owner within five (5) days of such installation in writing, prior to making the installation.

Contractor agrees to indemnify, defend and hold the District harmless from any liens, stop notices, or assertion of security interests, including judgments and levies. If after written notice Contractor fails to address the lien, stop notice, or other security interest, the District may proceed to address the lien, stop notice or claim and seek reimbursement from Contractor.

3.3.9 <u>Title to Materials</u>

The title to new materials or equipment for the Work of this Contract shall remain with Contractor until incorporated in the Work of this Contract until Final Acceptance of the Project; no part of said materials shall be removed from its place of storage, and Contractor shall keep an accurate inventory of all said materials and equipment in a manner satisfactory to the District or its authorized representative. Responsibility for materials remains with Contractor and Contractor shall replace materials in case of loss. District similarly may pay for materials stored off site, but Contractor shall remain responsible for the materials that are stored off site.

3.3.10 Assemblies

For all material and equipment specified or indicated in the Drawings, the Contractor shall provide all labor, materials, equipment, and services necessary, (including engineering as specifically required with Shop Drawings or deferred approvals) for complete assemblies and complete working systems. Incidental items not indicated on the 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 in the Contract Documents 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.

3.3.11 Noise Control

The Contractor shall be responsible for the installation of noise reducing devices on construction equipment. Contractor shall comply with the requirements of the city and county having jurisdiction with regard to noise ordinances governing construction sites and activities. Construction equipment noise is subject to the control of the Environmental Protection Agency's Noise Control Program (Part 204 of Title 40, Code of Federal Regulations). If school is in session at any point during the progress of the Project, and, in the District's reasonable discretion, the noise from such Work disrupts or disturbs the students or faculty or the normal operation of the school, at the District's request, the Contractor shall schedule the performance of all such Work around normal school hours or make other arrangements so that the Work does not cause such disruption or disturbance. There are specific periods of testing at operational schools and it is critical that Contractor control noise during periods of testing. In no event shall Contractor have a right to receive additional compensation or an extension to the Contract time as a result of any such rescheduling or the making of such arrangements. These controls shall be implemented during site preparation and construction. All noise related issues, including school operations, and noise during testing should be detailed in the Schedule provided pursuant to Article 8

3.4 WARRANTY

The Contractor warrants to the District and Architect that material and equipment furnished under the Contract will be of the highest quality and new unless otherwise required or permitted by the Contract Documents, that the Work will be free from defects not inherent in the quality required or permitted, and that the Work will conform with the requirements of the Contract Documents. Work not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective. Contractor's warranty to District includes, but is not limited to, the following representations:

- 1. In addition to any other warranties provided elsewhere, Contractor shall, and hereby does, warrant all Work after the date of Notice of Completion of Work by District and shall repair or replace any or all such Work, together with any other Work, which may be displaced in so doing that may prove defective in workmanship or materials within a one (1) year period from date of Final Completion which shall be no later than the final date of Punch List as noted at Article 9.11) without expense whatsoever to District, ordinary wear and tear, unusual abuse or neglect excepted. District will give notice of observed defects with reasonable promptness. Contractor shall notify District upon completion of repairs.
- 2. In the event of failure of Contractor to comply with above mentioned conditions within one week after being notified in writing, District is hereby authorized to proceed to have defects repaired and made good at expense of Contractor who hereby agrees to pay costs and charges therefore immediately on demand.

- 3. If, in the opinion of the District, defective Work creates a dangerous condition or requires immediate correction or attention to prevent further loss to the District, the District will attempt to give the notice required by this Article. If the Contractor cannot be contacted or does not comply with the District's requirements for correction within a reasonable time as determined by the District, the District may, notwithstanding the provisions of this article, proceed to make such correction or attention which shall be charged against Contractor. Such action by the District will not relieve the Contractor of the guarantee provided in this Article or elsewhere in this Contract.
- 4. This Article does not in any way limit the guarantee on any items for which a longer warranty is specified or on any items for which a manufacturer gives a guarantee for a longer period. Contractor shall furnish District all appropriate guarantee or warranty certificates upon completion of the project.

3.5 TAXES

Contractor will pay all applicable Federal, State, and local taxes on all materials, labor, or services furnished by it, and all taxes arising out of its operations under the Contract Documents. District is exempt from Federal Excise Tax, and a Certificate of Exemption shall be provided upon request.

3.6 PERMITS, FEES AND NOTICES

3.6.1 Payment

The Contractor shall secure and pay for all permits and governmental fees, licenses, and inspections necessary for proper execution and completion of the Work which are necessary after execution of the Contract and are legally required by any authority having jurisdiction over the Project, except those required by the Division of the State Architect (DSA). District shall be responsible for all testing and inspection as required by the DSA on-site or within the distance limitations set forth in Paragraph 13.5.2, unless a different mileage range is specified in the Supplemental Conditions.

3.6.1.1 DSA Fees. DSA policy is to charge CCD review fees for processing and approval of changes in the plans and specifications through the Construction Change Directive process. Contractor is specifically directed to the current DSA IR A-30 which provides fee structure and charges that will be incurred for proceeding is wih respect to the CCD process, a process that must be followed for each change in the Plans and Specifications.

3.6.2 Compliance

The Contractor shall comply with and give notices required by any law, ordinance, rule, regulation, and lawful order of public authorities bearing on performance of the Work. Specifically, the Division of State Architect provides State oversight of the Project and enforcement of Title 24 rules and regulations. Contractor is directed to the DSA website at http://www/dgs/ca/gov/dsa/home. There will be local governmental oversight from City, County or both. Finally, Regional Water Quality Control Board, State Fire Marshall, local fire marshal, Department of Industrial Relations, Department of Labor Standards Enforcement, and Air Quality Management District (Local and State) are some of the agencies that provide oversight and may require specific permits, fees, or provide oversight over the Project. Contractor represents understanding and specialized knowledge of the rules governing school districts and Contractor shall maintain compliance over the applicable rules and will file all documents required in order to ensure compliance with State, local, and other rules that apply to the Project.

3.6.3 <u>Responsibility</u>

The Contractor shall perform all Work in conformance with every law, statute, ordinance, building code, rule or regulation. The Contractor shall assume full responsibility for such Work and shall bear the attributable cost of correction or project delay.

Pursuant to Title 24 Section 4-343(b),

"Contractor shall carefully study the approved plans and specifications and shall plan a schedule of operations well ahead of time.... All inconsistencies or items which appear to be in error in the plans and specifications shall be promptly called to the attention of the architect or registered engineer, through the inspector, for interpretation or correction."

To help Contractor plan its operations, Contractor is directed to study the current version of the DSA 152 Inspection Card Manual identifying the exact steps the Inspector is to follow in the review and sign off process for the DSA 152. The DSA 152 Inspection Card Manual provides specific detail as to the order of operations, review items and compliance items beyond the specifications and plans which are reviewed for DSA compliance. The most current version of this manual is located at http://www.documents.dgs.ca.gov/dsa/forms.

Contractor is also specifically directed to the time periods for posting of Special Inspection Reports and Inspector Notifications under DSA PR 13-01 since the timing of Inspection is not a Governmental Entity related delay.

3.7 SUBMITTALS REQUIRED AT THE COMMENCEMENT OF THE PROJECT

3.7.1 Requirements Within Ten (10) Calendar Days

Within ten (10) calendar days after Notice to Proceed, Contract shall submit the following:

- 3.7.1.1 Detailed Schedule of Values (See Article 9.2)
- 3.7.1.2 Submittal Listing and Schedule for Submittals
- 3.7.1.3 Critical Path Schedule (See Article 8)

3.7.2 Requirements Within Thirty-Five (35) Calendar Days

Within thirty-five (35) calendar days after Notice to Proceed, Contractor shall submit the following:

- 3.7.2.1 All Submittals for the Project except those specifically agreed upon by District and Architect, in writing, and shall be specifically incorporated into the Submittal section of the Schedule so as to not delay the Work. The agreement to allow a later Submittal does not mean that Article 3.3.7 is waived. Contractor shall order materials and ensure prices are honored and secured for the Project.
 - a. Structural Steel may be included as a later Submittal than 35 days if Structural Steel is a significant portion of the Work, at least one or some of the Project is a structural steel structural system, or as specifically agreed upon by the Architect or District.

- b. It is specifically agreed that submissions of structural steel Submittals shall not be piecemeal (unless some portion is requested separately by the Owner or Architect), shall provide complete designs, shall be stamped by the Structural Steel subcontractor, Contractor, and Structural Steel Subcontractor's structural engineer at time of submission and as further addressed in Article 3.9.
- c. In no case shall the submission of Structural Steel Drawings delay the critical path for the schedule. If a Milestone is provided for submission of complete structural steel Shop Drawings then the date shall be no later than as set forth in the Milestone
- 3.7.2.2 Exceptions to Submittal Within Thrity-Five (35) Days by Written Agreement. A written request detailing the specific reasons for a submission later than 35 days due to complexity of design, or non-critical path status of the Submittal shall be submitted at the time the Baseline Schedule is submitted. The Baseline Schedule shall not include a delayed Submittal until written agreement is provided. In addition to the request for providing a Submittal after the thirty-five (35) day period, a copy of the Contract with the subcontractor who shall be performing the Submittal, a written statement from the subcontractor verifying that work has commenced on the Submittal and providing subcontractor's own schedule of milestones and completion dates, and a corresponding Submittal designation in the Schedule as required under Article 8
 - a. Approval of a delayed Submittal shall not result in any increase in the Contract Price or result in an extension of time for the completion of the Project.
- 3.7.2.3 Piecemeal Submissions of Submittals. Piecemeal Submittals mean providing portions of Shop Drawings or Submittals as they are being completed. The submission of piecemeal Submittals results in the appearance of a submission when there is inadequate information for the Architect or Engineer to adequately review a submission. Piecemeal differs from submission of complete buildings or phases of buildings or complete assemblies. The Architect may agree to allow submission of single buildings or areas as long as the Submittals are complete.

3.8 DOCUMENTS, SAMPLES, AND COMPUTER AT THE SITE

The Contractor shall maintain at the Site for the District one current copy of the California Building Code, Titles 19 and 24 of the California Code of Regulations, any other document required by DSA, and one record copy of the Drawings, Specifications, Addenda, Change Orders, and other Modifications, in good order and marked currently to record changes and selections made during construction. In addition, the Contractor shall maintain at the Site approved Shop Drawings, Product Data, Samples, and similar required Submittals. These documents shall be available to the Architect and shall be delivered to the Architect for delivery to the District upon completion of the Work.

Contractor shall have an operational computer with internet access so Contractor can review and post documents as required for the Project, including but not limited to the filing and posting of DSA required documents for the Project.

Contractor shall be prepared to post and review documents posted to the DSA Project website.

3.9 SUBMITTALS INCLUDING SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES

3.9.1 Definitions

- 3.9.1.1 Deferred Approvals. Approval of certain aspects of the construction may be deferred until the construction Contract has been awarded. To facilitate the design process, DSA grants deferred approval to the design and detailing of certain elements of the Project at the request of the Architect or Engineer of Record. Design elements that may be deferred may include, but are not limited to Access floors, Bleachers, Elevator guide rails and related elevator systems, Exterior wall systems precast concrete, glass fiber reinforced concrete, etc., Skylights, Window wall systems, storefronts, Stage rigging, and other systems as noted in the Contract Documents. (Also see Article 1.2.2 and 3.9.3)
- 3.9.1.2 Shop Drawings. The term "Shop Drawings" as used herein means drawings, diagrams, equipment or product schedules, and other data, which are prepared by Contractor, Subcontractors, manufacturers, suppliers, or distributors illustrating some portion of the Work, and includes: illustrations; fabrication, erection, layout and setting drawings; manufacturer's standard drawings; schedules; descriptive literature, instructions, catalogs, and brochures; performance and test data including charts; wiring and control diagrams; and all 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 their position conform to the requirements of the Contract Documents.
- 3.9.1.3 *Manufactured* applies to standard units usually mass-produced, and "Fabricated" means items specifically assembled or made out of selected materials to meet individual design requirements. Shop drawings shall: establish the actual detail of all manufactured or fabricated items, indicate proper relation to adjoining work, amplify design details of mechanical and electrical systems and equipment in proper relation to physical spaces in the structure, and incorporate minor changes of design or construction to suit actual conditions.
- 3.9.1.4 Submittals is a term used interchangeably and sometimes refers to Shop Drawings, Product Data, and Samples since all subcontractor submissions are tracked in a Submittal Log and may include any of the noted items. However, generally, a Submittal is a manufacturer's product information and product data including description, characteristics, size, physical characteristics, and requirements to prepare the jobsite for receiving of the particular manufactured item.
- 3.9.1.5 Samples. The term "samples" as used herein are physical examples furnished by Contractor to illustrate materials, equipment, or quality and includes natural materials, fabricated items, equipment, devices, appliances, or parts thereof as called for in the Specifications, and any other samples as may be required by the Architect to determine whether the kind, quality, construction, finish, color, and other characteristics of the materials, etc., proposed by the Contractor conform to the required characteristics of the various parts of the Work. All Work shall be in accordance with the approved samples.

3.9.2 Shop Drawings.

3.9.2.1 When Shop Drawings Are Required. Shop drawings are required for prefabricated components and for installation and coordination of these prefabricated components into the Project. In addition, Shop Drawings, are prepared to address the actual size and installation of components from various subcontractors and provides an opportunity for the Contractor to coordinate and address conflicts between the subcontracting trades. In some cases, each subcontractor or trade will provide Shop Drawings in a BIM format or other format as agreed by District.

- Purpose for Shop Drawings. Shop drawings are the Contractor's manufacturer, 3.9.2.2 subcontractor, supplier, vendor or the Contractor's detailed drawings showing particularized method for assembly, specifics to a manufacturer, manufacturer component installation requirements, specifics as to a manufactured item, alterations to a manufactured, a custom created item, or drawn version of more detailed information expanding on the Architect's design shown in the Contact Documents. The Shop Drawings address the appearance, performance, size, weight, characteristics and prescriptive descriptions associated with the Contractor or Contractor's subcontractor's plan for installation or assembly based on the design in the specifications and Contract Documents. The shop drawing often is more detailed than the information shown in the Contract Documents to give the Architect and Engineer the opportunity to review the fabricator's version of the product (along with particulars specific to that particular product), prior to fabrication. References to the Contract Documents, Construction Documents, Drawings, Plans, and Specifications assist the Architect and Engineer in their review of the Shop Drawings. Attachment of manufacturer's material specifications, "catalog cut sheets," and other manufacturer's information may be provided to accompany Shop Drawings. Because Shop Drawings facilitate the Architect's and Engineer's approval of the system, they should be as clear and complete as possible so they may be reviewed by Architect or Engineer for the Project.
- 3.9.2.3 Shop Drawing Requirements. The Contractor shall obtain and submit with Shop Drawings all seismic and other calculations and all product data from equipment manufacturers. "Product data" as used herein are 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.
- 3.9.2.4 Not a Reproduction of Architectural or Engineering Drawings. The shop drawing are not a reproduction of the architectural or engineering drawings. Instead, they must show more detail than the Construction Documents and details the fabrication and/or installation of the items to the manufacturer's production crew or Contractor's installation crews.
- 3.9.2.5 Shop Drawings Engineering Requirements: Some shop drawings require an engineer stamp to be affixed on the drawings and calculations. In such cases, a current and valid engineering stamp shall be affixed by a California registered engineer. No out of State engineers shall stamp Shop Drawings. (See DSA IR A-18). In most cases, an engineer means California registered mechanical, structural, electrical or plumbing engineer. California Registered Civil Engineers will not be accepted for structural details unless specifically approved by DSA.
- 3.9.2.6 DSA Approvals Required Prior to Work. No work on a Shop Drawing that requires DSA approval may proceed until DSA approval is received. Contractor has provided DSA approval time and allowed adequate time for corrections in Contractor's Schedule as required pursuant to Article 8.
- 3.9.2.7 Shop Drawing Identification. All Shop Drawings must be properly identified with the name of the Project and dated, and accompanied by a letter of transmittal referring to the name of the Project and to the Specification section number for identification of each item clearly stating in narrative form, as well as "clouding" all qualifications, departures, or deviations from the Contract Documents. Shop drawings, for each section of the Work shall be numbered consecutively and the numbering system shall be retained throughout all revisions. All Subcontractor submissions shall be made through the Contractor. Each drawing shall have a clear space for the stamps of Architect and Contractor.

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3.9.3 <u>Deferred Approvals</u>

Deferred approvals shall be submitted and processed to ensure all DSA and other governmental approvals are secured so as to not delay the Project. There may be additional requirements for deferred approvals at Division 1 of the Specifications. All deferred approvals shall be prepared by Contractor or Contractor's agent early enough so as to not delay the Project. Contractor is aware that Title 24 California Code of Regulations Section 4-317 have specific requirements for deferred approval as to governing agencies and as to the Architect and Engineer for the Project. As a result, any delay associated with the time for approval by applicable agencies or by the Architect or Architect's consultants shall be Contractor's. Contractor is required to comply with inclusion of Deferred Approvals in the Schedule as required under Article 3.9.6

3.9.3.1 DSA Approvals Required Prior to Work. No work on a deferred approval item may proceed on the components until DSA approval is received. Contractor has provided DSA approval time and allowed adequate time for any DSA revisions in Contractor's Schedule as required pursuant to Article 8.

3.9.4 <u>Submittals and Samples</u>

- 3.9.4.1 *Information Required With Submittals*: Manufacturer, trade name, model or type number and quantities: Information provided must be of sufficient detail to allow Architect and Engineer to compare the submitted item with the specified products and acceptable products listed, in the specification and addenda.
- 3.9.4.2 *Description of Use and Performance Characteristics*: Information should be furnished describing the normal use and expected performance of the product. The Architect and Contractor review this information to confirm that the product is appropriate for the intended use.
- 3.9.4.3 Size and Physical Characteristics: The size and physical characteristics, such as adjustment capabilities, which is reviewed by both the Contractor and Architect. The Contractor has the most available information for comparing adjoining materials and equipment. The Contractor also needs to know the size and weight of the equipment for lifting and handling considerations.
- 3.9.4.4 *Finish Characteristics:* The Architect reviews the available finishes and selects the appropriate finish, if the finish was not previously specified in the documents. The Contractor should confirm that finish requirements in the specification are being met by the product.
- 3.9.4.5 Contractor Responsible for Jobsite Dimensions: Some material is custom-fabricated to job conditions, requiring dimensions from the jobsite. These jobsite dimensions are provided by the Contractor as part of the Contractor's responsibilities for the Project and shall be provided prior to release of the product for manufacture. Contractor shall not rely on Architect or Engineers to provide jobsite dimensions.
- 3.9.4.6 Full Range of Samples Required (When Specific Items Not Specified). Except in cases where the exact color and type of item is specified since the District is utilizing items Standardized or pre-selected by District, the full range of color, graining, texture, or other characteristics are anticipated for review in finished products, a sufficient number of samples of the specified materials shall be furnished by the Contractor to indicate the full range of characteristics which will be present in the finished products. Products delivered or erected without Submittal and approval without providing a full range of samples shall be subject to rejection. Except for range samples, and unless otherwise called for in the various sections of the Specifications or Specification Section 1, samples shall be submitted in duplicate.

- 3.9.4.7 *Labeling of Samples*. All samples shall be marked, tagged, or otherwise properly identified with the name of the submitting party, the name of the Project, the purpose for which the samples are submitted and the date.
- 3.9.4.8 *Transmittal letter*. All samples shall be accompanied by a letter of transmittal containing similar information, together with the Specification section number.
- 3.9.4.9 *Labels and Instructions*. All samples of materials shall be supplied with the manufacturer's descriptive labels and application instructions. Each tag or sticker shall have clear space for the review stamps of Contractor and Architect.
- 3.9.4.10 *Architect's Review.* The Architect will review and, if appropriate, approve submissions and will return them to the Contractor with the Architect's stamp and signature applied thereto, indicating the timing for review and appropriate action in compliance with the Architect's (or District's) standard procedures. In the cases where a CM is hired by the District, CM may be the party that receives and performance logging and initial processing of the Samples. CM may, in some cases, reject samples that are not in conformance with Contract requirements.

3.9.5 <u>Submittal Submission Procedure</u>

- 3.9.5.1 Transmittal Letter and Other Requirements. All Submittals must be properly identified with the name of the Project and dated, and each lot submitted must be accompanied by a letter of transmittal referring to the name of the Project and to the Specification section number for identification of each item clearly stating in narrative form, as well as "clouding" on the submissions, all qualifications, departures, or deviations from the Contract Documents. Shop drawings, for each section of the Work shall be numbered consecutively and the numbering system shall be retained throughout all revisions. All Subcontractor submissions shall be made through the Contractor. Each drawing shall have a clear space for the stamps of Architect and Contractor. Refer to Division 1. In the case where a CM is hired on the Project, the CM may be designated to receive the Submittals for the Project, log the Submittals, and in some cases reject Submittals that do not conform to Contract requirements. Submittal Procedures for further information.
- 3.9.5.2 Copies Required. Each Submittal shall include one (1) legible, reproducible (if electronic is available, electronic copies shall also be provided) and five (5) legible prints of each drawing or schedule, table, cut sheet, etc., including fabrication, erection, layout and setting drawings, and such other drawings as required under the various sections of the Specifications, until final acceptance thereof is obtained. Subcontractor shall submit copies, in an amount as requested by the Contractor, of: (1) manufacturers' descriptive data for materials, equipment, and fixtures, including catalog sheets showing dimensions, performance, characteristics, and capacities; (2) wiring diagrams and controls; (3) schedules; (4) all seismic calculations and other calculations; and (5) other pertinent information as required by the District or Architect. See also Division 1.
- 3.9.5.3 *Corrections*. The Contractor shall make all corrections required by Architect, District or CM and shall resubmit, as required by Architect or CM, corrected copies of Shop Drawings or new samples until approved. Contractor shall direct specific attention in writing or on resubmitted Shop Drawings to revisions other than the corrections required by the Architect on previous submissions. Professional services required for more than one (1) re-review of required Submittals of Shop Drawings, product data, or samples are subject to charge to the Contractor pursuant to Paragraph 4.5.
- 3.9.5.4 *Approval Prior to Commencement of Work.* No portion of the Work requiring a shop drawing or sample submission or other Submittal shall be commenced until the submission has been

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reviewed by Contractor and Architect (and CM, if applicable) and approved by Architect (and CM where applicable) unless specifically directed in writing by the Architect. All such portions of the Work shall be in accordance with approved Shop Drawings and samples.

3.9.5.5 *District's Property.* All Submittals, Shop Drawings, computer disks, BIM modeling information, clash checks, schedules, annotated specifications, samples and other Submittals shall become the District's property upon receipt by the District or Architect.

3.9.6 <u>Schedule Requirements for Submittals</u>

Contractor shall obtain and shall submit all required Submittals (i.e. Shop Drawings, Deferred Approvals, Samples, etc.), in accordance with Contractor's "Schedule for Submission of Shop Drawings and Samples" as required in the scheduling portion of the General Conditions at Articles 8 and the Specifications (as long as the Specifications do not conflict with General Conditions. In the case of conflict, the conflicting provision shall be controlled by the General Conditions and the remaining specification sections shall be interpreted as if the general conditions language is inserted) with such promptness as to cause no delay in its own Work or in that of any other contractor or subcontractor but in no event later than thirty five (35) days after the Notice to Proceed is issued except in the specific cases noted as an exception under Article 3.7.2.1. No extensions of time will be granted to Contractor or any Subcontractor because of its failure to have Shop Drawings and samples submitted in accordance with Division 1 and the Schedule. Each Subcontractor shall submit all Shop Drawings, samples, and manufacturer's descriptive data for the review of the District, the Contractor, and the Architect through the Contractor.

3.9.6.1 *Consideration of Schedule*. Contractor has considered lead times, DSA or other agency governmental review times, Architect or Engineer review times, manufacturing seasons, and specific long lead procurement concerns for all submitals for the Project.

3.9.7 General Submittal Requirements

3.9.7.1 Contractor Submittal Representations. By submitting Shop Drawings, product data, samples, etc., the Contractor represents that it has determined and verified all materials, field measurements, catalog numbers, related field construction criteria, and other relevant data in connection with each such submission, and that it has checked, verified, and coordinated the information contained within such Submittals with the requirements of the Work and of the Contract Documents, including the construction schedule.

3.9.7.2 Contractor Coordination. By submitting Shop Drawings, Submittals, product data, samples, etc., the Contractor represents that it has determined and verified all materials, field measurements, catalog numbers, related field construction criteria, and other relevant data in connection with each such submission, and that it has checked, verified, and coordinated the information contained within such Submittals with the requirements of the Work and of the Contract Documents, including the construction schedule. Contractor shall stamp, sign, and date each Submittal indicating its representation that the Submittal meets all of the requirements of the Contract Documents and evidence Contractor's review through execution of the following stamp to be placed on each Shop Drawings:

"The [contractor] has reviewed and approved the field dimensions and the construction criteria, and has also made written notation regarding any information in the Shop Drawings and Submittals that does not conform to the Contract Documents. This Shop Drawing or Submittal has been coordinated with all other Shop Drawings and Submittals

received to date by me as Contractor and this duty of coordination has not been delegated to subcontractors, material suppliers, the Architect, or the Engineers on this Project.

Signature of Contractor and date

- 3.9.7.3 No Deviation from Contract Documents. The submission of the Shop Drawings, product data, samples, etc., shall not deviate from the *requirements* of the Contract Documents including detailing and design intent which is specifically outlined in Contract Documents except as specifically authorized by the Architect or through an accepted substitution pursuant to Paragraph 3.10.4. All deviations from the Contract Documents shall be narratively described in a transmittal accompanying the Shop Drawings. However, Shop Drawings shall not be used as a means of requesting a substitution, the procedure for which is defined in Paragraph 3.10.4, "Substitutions."
- 3.9.7.4 Contractor Responsibility for Shop Drawings Conformance to Contract Documents. Review by District and Architect shall not relieve the Contractor or any Subcontractor from its responsibility in preparing and submitting proper Shop Drawings in accordance with the Contract Documents.
- 3.9.7.5 *Incomplete Submittals*. Any submission, which in Architect's opinion is incomplete, contains errors, or has been checked superficially will be returned unreviewed by the Architect for resubmission by the Contractor. Refer to Section 01 33 00 Submittal Procedures for additional information.
- 3.9.7.6 Shop Drawings and Submittals Shall Not Be Used as a Method to Make a Substitution. Shop drawings and Submittals shall not be used as a means of requesting a substitution or to make changes in the Contract Documents. If changes are made to the Contract Documents through the Shop Drawings, the Architect shall have the right to reject the Submittal. If the Architect does not note the deviation from the approved plans and specifications, the Contractor is still responsible for the change and the Architect or the District may require the Shop Drawings be revised to properly reflect the approved Contract Documents. The Architect or District may also require that the Contractor bear all costs under Article 4.5 and consequential damages associated with a CCD to revise plans and specifications to accommodate the deviation from approved plans and specifications.
- 3.9.7.7 <u>Extent of Review.</u> In reviewing Shop Drawings, the Architect will not verify dimensions and field conditions. The Architect will review and approve Shop Drawings, product data, samples, etc., for aesthetics and for conformance with the design concept of the Work and the information in the Contract Documents. The Architect's review shall neither be construed as a complete check which relieves the Contractor, Subcontractor, manufacturer, fabricator, or supplier from responsibility for any deficiency that may exist or from any departures or deviations from the requirements of the Contract Documents unless the Contractor has, in writing, called the Architect's attention to the deviations at the time of submission. The Architect's review shall not relieve the Contractor or Subcontractors from responsibility for errors of any sort in Shop Drawings or schedules, for proper fitting of the Work, coordination of the differing subcontractor trades and Shop Drawings and Work which is not indicated on the Shop Drawings at the time of submission of Shop Drawings. Contractor and Subcontractors shall be solely responsible for any quantities which may be shown on the Submittals or Contract Documents.

3.10 **SUBSTITUTIONS**

3.10.1 Definition

A Substitution is a change in product, material, equipment, or method of construction from those required by the Construction Documents proposed by the Contractor. For this Project, a Substitution is subject to the filing of a Construction Substitution Request Form at the time of bid and meeting the requirements of this Article.

3.10.2 One Product Specified

Unless the Specifications state that no substitution is permitted, whenever the Contract Documents indicate any specific article, device, equipment, product, material, fixture, patented process, form, method, or type of construction or any specific name, make, trade name, or catalog number, with or without the words "or equal," such specification shall be deemed to be used for the purpose of facilitating description of the material, process, or article desired and shall be deemed to be followed by the words "or equal." Subject to the requirements of properly submitting a Substitution Request for as Addressed in Article 3.10.4, the Contractor may, unless otherwise stated, offer any material, process, article, etc., which shall be materially equal or better in every respect to that so indicated or specified ("Specified Item") and will completely accomplish the purpose of the Contract Documents.

3.10.3 Products Specified Which Are Commercially Unavailable

If the Contractor fails to make a request for substitutions for products, prior to the submission of its bid, and such products subsequently become commercially unavailable, the Contractor may request a substitution for such commercially unavailable item. The decision to grant this request is solely at the District's discretion. The written approval of the District, consistent with the procedure for Change Orders, shall be required for the use of a proposed substitute material. The District may condition its approval of the substitution upon the delivery to District of an extended warranty or other assurances of adequate performance of the substitution as well as an equitable deduction in the Contract price should the substituted item cost less than the Specified Item. All risks of delay due the approval of a requested substitution by the DSA, or any other governmental agency having jurisdiction, shall be on the requesting party. All additional costs, DSA review costs, all procurement and construction delays, and all costs for review by the Architect or its consultants shall be the responsibility of the Contractor and will be deducted from Contractor's pay request.

3.10.4 Substitution Request Form

Requests for substitutions of products, materials, or processes in place of a Specified Item must be in writing on the District's Substitution Request Form ("Request Form") at the time of submitting bids to the District, except as provided for in Paragraph 3.10.3.

The Request Form must be accompanied by evidence as to whether the proposed substitution:

- d. Is equal in quality/service/ability to the Specified Item;
- e. Will entail no changes in detail, construction, and scheduling of related work;
- f. Will be acceptable in consideration of the required design and artistic effect;

- g. Will provide no cost disadvantage to the District;
- h. Will require no excessive or more expensive maintenance, including adequacy and availability of replacement parts; and
- i. Will required no change of the construction schedule.

In completing the Request Form, the bidder must state, with respect to each requested substitution, whether the bidder will agree to provide the Specified Item in the event that the District denies the bidder's request for such requested substitution. In the event that the bidder has agreed in the Request Form to provide the Specified Item and the District denies the bidder's requested substitution for a Specified Item, the bidder shall provide the Specified Item without any additional cost or charge to the District.

After bids are opened, the apparent lowest bidder shall provide, within five (5) days of opening such bids, any and all Drawing, Specifications, samples, performance data, calculations, and other information, as may be required to assist the Architect, CM and the District in determining whether the proposed substitution is acceptable. The burden of establishing these facts shall be upon the bidder.

After the District's receipt of such evidence by the bidder, the District will make its final decision as to whether the bidder's request for substitution for any Specified Items will be granted. The decision as to whether a proposed request for substitution is equal to a Specified Item shall be at the sole discretion of the District. Any request for substitution that is granted by the District shall be documented and processed though a Change Order. Contractor must submit a complete Submittal of the requested substitution and a shop drawing showing configuration, dimensions, and other critical information associated with the substitution that meets the requirements of Article 3.9. The District may condition its approval of any substitution upon delivery to the District of an extended warranty or other assurances of adequate performance of the substitution. Any and all risks of delay due to approval by the DSA or any other governmental agency having jurisdiction shall be on the bidder.

If the Architect and District accept a proposed substitution, the Contractor agrees to pay for all DSA review costs, engineering and design services, including, without limitation, compensation to the Architect and affected engineers for their required time to process such substitution through the Division of the State Architect, if required, and to make all changes and adjustments in materials or the work of all trades directly or indirectly affected by the substituted item or items at no cost to the District.

3.11 INTEGRATION OF WORK

3.11.1 Scope

The Contractor shall be responsible for cutting, fitting, or patching to complete the Work and to make all parts fit together properly. Contractor shall be responsible for ensuring that all trades are coordinated and scheduled so as to ensure the timely and proper execution of the work. When modifying existing work or installing new Work adjacent to existing work, Contractor shall match, as closely as conditions of Site and materials will allow, the finishes, textures, and colors of the original work, refinishing existing work at no additional cost to District. All cost caused by defective or ill-timed work shall be borne by Contractor. Contractor shall be solely responsible for protecting existing work on adjacent properties and shall obtain all required permits for shoring and excavations near property lines.

3.11.2 Structural Members

New or existing structural members and elements, including reinforcing bars and seismic bracing, shall not be cut, bored, or drilled except by written authority of the Architect. Work done contrary to such authority is at the Contractor's risk and subject to replacement at its own expense without reimbursement under the Contract. Schedule delays resulting from Agency approvals for unauthorized work shall be the Contractor's responsibility.

3.11.3 <u>Subsequent Removal</u>

Permission to patch any areas or items of the Work shall not constitute a waiver of the District's or the Architect's right to require complete removal and replacement of the areas of items of the Work if, in the opinion of the Architect or the District, the patching does not satisfactorily restore quality and appearance of the Work or does not otherwise conform to the Contract Documents.

3.12 <u>CLEANING UP</u>

3.12.1 <u>Contractor's Responsibility to Clean Up</u>

Contractor at all times shall keep premises free from debris such as waste, dust, excess water, storm water runoffs, rubbish, and excess materials and equipment. Contractor shall not leave debris under, in, or about the premises, but shall promptly remove same from the premises and dispose of it in a lawful manner. Disposal receipts or dump tickets shall be furnished to the Architect within five (5) days of request.

Contractor shall remove rubbish and debris resulting from the Work on a daily basis. Contractor shall maintain the structures and Site in a clean and orderly condition at all times until acceptance of the project by the District. Contractor shall keep its access driveways and adjacent streets, sidewalks, gutters and drains free of rubbish, debris and excess water by cleaning and removal each day. All concrete, sidewalks, and paths of travel shall be broom cleaned daily.

3.12.2 <u>General Final Clean-Up</u>

Upon completion of Work, Contractor shall employ experience workers or professional cleaners for final cleaning. Clean each surface to the condition expected in a normal, commercial, building cleaning and maintenance program.

- Clean interior and exterior of buildings, including fixtures, equipment, walls, floors, ceilings, roofs, window sills and ledges, horizontal projections, and any areas where debris has collected, so surfaces are free from foreign material or discoloration;
- b. Clean the Project site. The grounds should be cleared of any Contractor equipment, raked clean of debris and trash removed. Sweep paved areas broom clean.
- c. Repair or replace any damaged materials. Replace any chipped or broken glass.
- d. Remove any and all stains.
- e. Remove labels that aren't permanent labels.

- f. Clean and polish all glass, plumbing fixtures, equipment, finish hardware and similar finish surfaces. Remove any glazing compounds
- g. Remove temporary utilities, fencing, barricades, planking, sanitary facilities and similar temporary facilities from Site.
- h. Remove temporary film that remains on any hardware, doors or other surfaces.
- i. Seal the bottom and tops of all doors

3.12.3 Special Clean-Up.

In addition to the general cleaning, the following special cleaning shall be done at the completion of the Work in accordance with the specifications including, but not limited to:

- a. Remove putty stains from glazing, then wash and polish glazing.
- b. Remove marks, stains, fingerprints and other soil or dirt from painted, stained or decorated work.
- c. Remove temporary protection and clean and polish floors and waxed surfaces.
- d. Clean and polish hardware and plumbing trim; remove stains, dust, dirt, plaster and paint
- e. Wipe surfaces of mechanical and electrical equipment.
- f. Remove spots, soil, plaster and paint from tile work, and wash tile.
- g. Clean all fixtures and equipment, remove excess lubrication, clean light fixtures and lamps, polish metal surfaces.
- h. Vacuum-clean carpeted surfaces.
- i. Remove debris from roofs, down spout and drainage system.

3.12.4 Failure to Cleanup

If the Contractor fails to clean up as provided in the Contract Documents, the District may do so, and the cost thereof shall be the responsibility of the Contractor pursuant to Article 2.2 and seek a Deductive Change Order.

3.13 ACCESS TO WORK

The Contractor shall provide the District, the Architect, Engineers and the Inspector of Record, access to the Work in preparation and progress wherever located. Contractor shall provide safe and proper facilities for such access so that District's representatives may perform their functions.

CONTRACTOR IS AWARE THAT THIS CONTRACT MAY BE SPLIT INTO SEVERAL PHASES AS ADDRESSED IN ARTICLE 6.

3.13.1 Special Inspection or Tests Out of State, Out of Country or Remote from Project

If Contractor has a subcontractor or supplier that requires in plant or special inspections or tests that are out of the Country, out of State, or a Distance of more than 200 miles from the Project site, the Special Inspector shall be provided access so the special inspection may occur in the remote location. In some cases, the DSA Inspector may also require access in addition to Special Inspectors and individuals performing tests. Inspections/tests shall occur during normal work hours. See also Article 4.3.6.

3.14 ROYALTIES AND PATENTS

3.14.1 Payment and Indemnity for Infringement

Contractor shall hold and save the District and its officers, agents, and employees, the Construction Manager, the Architect, and the Architect's consultants harmless from liability of any nature or kind, including cost and expense, for or on account of any patented or unpatented invention, process, article, or appliance manufactured or used in the performance of the Contract, including its use by the District, unless otherwise specifically provided in the Contract Documents, and unless such liability arises from the sole negligence, or active negligence, or willful misconduct of the District, the Architect, or the Architect's consultants.

3.14.2 Review

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

3.15 INDEMNIFICATION

3.15.1 Contractor

Contractor shall defend, indemnify and hold harmless District, Architect, Construction Manager, Inspector, the State of California and their officers, employees, agents and independent contractors from all liabilities, claims, actions, liens, judgments, demands, damages, losses, costs or expenses of any kind arising from death, personal injury, property damage or other cause based or asserted upon any act, omission, or breach connected with or arising from the progress of Work or performance of service under this Agreement or the Contract Documents. As part of this indemnity, Contractor shall protect and defend, at its own expense, District, Architect, Inspector, the State of California and their officers, employees, agents and independent contractors from any legal action including attorney's fees or other proceeding based upon such act, omission, breach or as otherwise required by this Section 3.15.1.

Furthermore, Contractor agrees to and does hereby defend, indemnify and hold harmless District, Architect, Inspector, the State of California and their officers, employees, agents and independent contractors from every claim or demand made, and every liability, loss, damage, expense or attorney's fees of any nature whatsoever, which may be incurred by reason of:

a. Liability for (1) death or bodily injury to persons; (2) damage or injury to, loss (including theft), or loss of use of, any property; (3) any failure or alleged failure to comply with any provision of law or the Contract Documents; or (4) any other loss, damage or expense, sustained by any person, firm or corporation or in connection with the Work called for in this Agreement or the Contract Documents,

except for liability resulting from the sole or active negligence, or the willful misconduct of the District.

- b. Any bodily injury to or death of persons or damage to property caused by any act, omission or breach of Contractor or any person, firm or corporation employed by Contractor, either directly or by independent contract, including all damages or injury to, loss (including theft), or loss of use of, any property, sustained by any person, firm or corporation, including District, arising out of or in any way connected with Work covered by this Agreement or the Contract Documents, whether said injury or damage occurs either on or off District property, but not for any loss, injury, death or damages caused by the sole or active negligence or willful misconduct of the District.
- c. Any dispute between Contractor and Contractor's subcontractors/supplies/sureties, including, but not limited to, any failure or alleged failure of the Contractor (or any person hired or employed directly or indirectly by the Contractor) to pay any Subcontractor or Materialman of any tier or any other person employed in connection with the Work and/or filing of any stop notice or mechanic's lien claims.

Contractor, at its own expense, cost, and risk, shall defend any and all claims, actions, suits, or other proceedings that may be brought or instituted against the District, its officers, agents, Architect or CM, or employees, on account of or founded upon any cause, damage, or injury identified herein Section 3.15.1 and shall pay or satisfy any judgment that may be rendered against the District, its officers, agents or employees in any action, suit or other proceedings as a result thereof.

Contractor shall ensure that its contract with each of its subcontractors contains provisions requiring the subcontractors to defend, indemnify and hold harmless the District, Architect, Inspector, the State of California to a minimum level as set forth in this Article and consistent with the language of 3.15.1.

The Contractor's and Subcontractors' obligation to defend, indemnify and hold harmless the District, Architect, Inspector, the State of California and their officers, employees, agents and independent contractors hereunder shall include, without limitation, any and all claims, damages, and costs for the following: (1) any damages or injury to or death of any person, and damage or injury to, loss (including theft), or loss of use of, any property; (2) breach of any warranty, express or implied; (3) failure of the Contractor or Subcontractors to comply with any applicable governmental law, rule, regulation, or other requirement; (4) products installed in or used in connection with the Work; and (5) any claims of violation of the Americans with Disabilities Act ("ADA")

3.16 SUBMISSION OF DAILY REPORTS

3.16.1 General

By 10:00 a.m. on the following business day, the Contractor shall submit a Daily Report to the Inspector and copy the Architect for the previous day's Work. If there is a Construction Manager, the original daily report is to be provided to the Construction Manager and copies sent to the Architect and the Inspector. Daily Reports shall be prepared on forms approved by the District, together with applicable delivery tickets, listing all labor, materials, and equipment involved for that day. The District reserves the right to note inconsistencies or inaccuracies in the daily reports. In such cases, pertinent notes shall be entered by each party to explain points which cannot be resolved that day. Each party shall retain a signed copy of the report. Reports by subcontractors or others shall be submitted through the Contractor.

3.16.2 Labor

The report required by Paragraph 3.16.1 shall show names of workers, classifications, hours worked and hourly rate. The locations where work occurred shall also be identified in the Daily Report. Project superintendent expenses are not allowed.

3.16.3 Materials

The Daily Report required by Paragraph 3.16.1 shall describe and list quantities of materials used and unit costs.

3.16.4 Equipment

The Daily Report required by Paragraph 3.16.1 shall show type of equipment, size, identification number, and hours of operation, including loading and transportation, if applicable, and hourly/daily cost. Move-on and move-off fees shall be noted.

3.16.5 Other Services and Expenditures

Other services and expenditures shall be described in the Daily Report in detail as the District requires.

3.16.6 Failure to Submit Daily Report

If Contractor does not submit its Daily Report by 10 am the next business day, the Inspector of Record shall prepare a Daily Report addressing each of the above items. The cost for the Inspector's services to prepare the Daily Report shall be addressed through a Deductive Change Order under Article 7.7.4.

3.17 <u>AS-BUILT DRAWINGS AND ANNOTATED SPECIFICATIONS</u>

Throughout the duration of the Project, Contractor shall maintain on a current basis an accurate and complete set of As-Built Drawings (and Annotated Specifications) clearly showing all changes, revisions to specifications and substitutions during construction, including, without limitation, field changes and the final location of all electrical and mechanical equipment, utility lines, ducts, outlets, structural members, walls, partitions, and other significant features. In case a specification allows Contractor to elect one of several brands, makes, or types of material or equipment, the annotations shall show which of the allowable items the Contractor has furnished. The Contractor will update the As-Built Drawings and Annotated Specifications as often as necessary to keep them current, but no less often than weekly.

Contractor shall update As-Built Drawings with complete information on an area of Work at or near the time when the Work is being performed and prior to any DSA 152 sign off and prior to any Work being covered.

The Record Drawings and Annotated Specifications shall be kept at the Site and available for review and inspection by the District and the Architect. Failure to maintain and update the Record Drawings is a basis to withhold Progress Payments pursuant to Article 9.6.

3.17.1 <u>Upon Beneficial Occupancy</u>

Contractor shall obtain and pay for reproducible plans upon Beneficial Occupancy. Contractor shall deliver Plans to District Representative (Construction Manager if one is hired for the Project).

3.17.2 As-Builts at Completion of Work

On completion of the Work and prior to and as a condition precedent to Application for Retention Payment, the Contractor will provide one neatly prepared and complete set of As-Built Drawings and Annotated Specifications to the District. Contractor shall certify the As-Builts as a complete and accurate reflection of the actual construction conditions of the Work by affixing a Stamp indicating the Drawings are As-Builts and Certifying Accuracy on the final set of As-Builts. Failure to deliver a complete Record Set of Drawings may result in significant withholdings to ensure Work is properly documented. See Article 9.9.1.

3.17.3 Log of Control and Survey Documentation

Contractor shall complete and maintain an accurate log or all control and survey documentation for the Project as the Work progresses. All reference and control points shall be recorded on the As-Built drawings. The basis of elevations shall be one of the established benchmarks that must be maintained on the As-Builts.

3.17.4 <u>Record Coordinates for Key Items</u>

Contractor shall record, by coordinates, all utilities on-site with top of pipe elevations, major grade and alignment changes, rim, grate or top of curb and flow line elevations of all drainage structures and sewer manholes. Contractor shall update record information at or near the time when work is occurring in an area and prior to DSA 152 sign off on any category of Work and prior to covering the Work.

3.17.5 <u>BIM As-Built Drawings</u>

If BIM is utilized for the Project, then an electronic version of such As-Built Drawings and Annotated Specifications will be delivered to District (in an acceptable format to District).

3.18 EQUIPMENT MANUALS

Contractor shall obtain and furnish three (3) complete sets of manuals containing the manufacturers' instructions for maintenance and operation of each item of equipment and apparatus furnished under the Contract Documents and any additional data specifically requested under the various sections of the Specifications for each division of the Work. The manuals shall be arranged in logical, sequential order, labeled, indexed, and placed in three-ring binders. At the completion of its Work, the Contractor shall certify, by endorsement thereon, that each of the manuals is complete, accurate, and covers of Work. Prior submittal of Contractor's **Application** all to Retention Payment, and as a further condition to its approval by the Architect, each Subcontractor shall deliver the manuals, arranged in logical, sequential order, labeled, indexed, endorsed, and placed in threering binders, to the Contractor, who shall assemble these manuals for all divisions of the Work, review them for completeness, and submit them to the District through the Architect.

ARTICLE 4 ADMINISTRATION OF THE CONTRACT AND CLAIMS

4.1 **ARCHITECT**

4.1.1 Replacement of Architect

In the case of the termination of the Architect, the District may appoint an Architect or another construction professional or may perform such functions with its own licensed professional personnel. The status of the replacement Architect under the Contract Documents shall be the same as that of the former Architect.

4.2 ARCHITECT'S ADMINISTRATION OF THE CONTRACT

4.2.1 Status

Pursuant to Titles 2 of the California Code of Regulations and as required pursuant to the Field Act, Education Code 17280 et. seq., the Architect will provide administration of the Contract Documents and the Work, and will be the District's representative during construction, as well as during the one (1) year period following the commencement of any warranties. The Architect will have authority to act on behalf of the District only to the extent provided in the Contract Documents.

4.2.2 Site Visits

The Architect will visit the Site at intervals necessary in the judgment of the Architect to become generally familiar with the progress and quality of the Work and to determine in general if the Work is being performed in accordance with the Contract Documents and as otherwise required by DSA.

4.2.3 Limitations of Construction Responsibility

The Architect, District and CM shall not have control over, charge of, or be responsible for construction means, methods, techniques, schedules, sequences or procedures, fabrication, procurement, shipment, delivery, receipt, installation, or for safety precautions and programs in connection with the Work, since these are solely the Contractor's responsibility under the Contract Documents. The Architect, District and CM shall not be responsible for the Contractor's, Subcontractors', material or equipment suppliers', or any other person's schedules or failure to carry out the Work in accordance with the Contract Documents. The Architect, District and CM shall not have control over or charge of acts or omissions of the Contractor, Subcontractors, their agents or employees, or any other persons or entities performing or supplying portions of the Work. The Contractor shall not be relieved of obligations to perform the Work in accordance with the Contract Documents either by activities or duties of the Architect, District or CM in the Architect, District or CM's administration of the Contract Documents, or by tests, inspections, or approvals required or performed by persons other than the Contractor.

4.2.4 Communications Facilitating Contract Administration

Except where a CM is on the Project, or as otherwise provided in the Contract Documents or when direct communications are warranted by special circumstances, the District and the Contractor shall communicate through the Architect. In the cases where a CM is hired for the Project, all communication shall be through the CM (unless otherwise directed) with copies to the District, Architect and Inspector. Where direct communication is necessary between the District and the Contractor, the

District's communication shall be through the District's authorized designated person. The Architect and CM shall be promptly informed, and shall receive copies of all written communications. Contractor shall not rely upon any communications from the District that is not from the District's authorized designee. Communications by and with the Architect's consultants shall be through the Architect. Communications by and with Subcontractors and material or equipment suppliers shall be through the Contractor. In the case where a CM is hired for the Project, the CM shall be the main point of contact for communication of information. Copies should be sent to the Architect, District Representative and Inspector.

4.2.5 Payment Applications

The Architect will review and make recommendations to the District regarding the amounts due the Contractor on the Certificates for Payment pursuant to Article 9.3.4 and subject to the Inspector's review, (CM review, if applicable) and Architect's observation. This review of Payment Applications is sometimes called a "Pencil Draft." Return of a Pencil Draft shall constitute the District's dispute of the Pay Application that has been submitted. Contractor shall promptly respond to Pencil Drafts or Contractor's Pay Applications may be delayed. Contractor's failure to promptly respond to a Pencil Draft shall qualify as a delay in the Prompt Payment of a Request for Payment or Request for Retention.

4.2.6 Rejection of Work

In addition to the rights, duties, and obligations of the Inspector under this Article, the Architect may recommend to the District that the District reject Work which does not conform to the Contract Documents. Whenever the Architect considers it necessary or advisable to achieve the intent of the Contract Documents, the Architect (and/or CM) may recommend to the District that the District require additional inspection or testing of the Work in accordance with Paragraph 13.5, whether or not such Work is fabricated, installed, or completed. District may have Non-conforming Work removed and replaced pursuant to Article 9.7. However, neither this authority of the Architect (or CM) nor a decision made in good faith either to exercise or not to exercise such authority shall give rise to a duty or responsibility of the Architect (or CM) to the Contractor, Subcontractors, material and equipment suppliers, their agents or employees, or other persons performing portions of the Work.

Contractor shall, without charge, replace or correct Work found by the District to not be in conformance to Contract requirements. Contractor shall promptly segregate and remove rejected materials from the Project site.

This section is does not address a Notice of Non-Compliance and the remedies associated with a Notice of Non-Compliance which are addressed at Article 7.1.2.

4.2.7 Warranties upon Completion

The Architect (and where applicable CM), in conjunction with the Inspector will conduct field reviews of the Work to determine the date of Substantial Completion and of Final Completion, shall receive and forward to the District for the District's review written warranties and related documents required by the Contract and assembled by the Contractor, and will issue a final Certificate for Payment when the Architect believes the Work has been completed in compliance with the requirements of the Contract Documents (See Article 9.11 for Close-Out). The handling by the Architect (or where applicable CM) of such warranties, maintenance manuals, or similar documents shall not diminish or transfer to the Architect any responsibilities or liabilities required by the Contract Documents of the Contractor or other entities, parties, or persons performing or supplying the Work.

On some Projects, the District will take a phased occupancy of the Project. In those cases, the District may commence the running of warranties on the buildings, or phases that are accepted after Punch List is completed and the District has accepted Completion of the separate phase. A separate Notice of Completion may be filed for the separate building or phase of work and warranties shall commence for the separate phase only to the extent that warranties do not require coordination or connection to other buildings or other parts of the site and only if the warranted item is completed to its entirety in the segregated building or phased area.

If Written Warranties are not provided at the time the Punch List is nearing completion, Architect (with recommendations from the CM and Inspector) shall determine the dollar value of the warranties and shall make recommendation for withholds necessary transfer such Warranty to the District for future use as part of the Punch List for the Project pursuant to Article 9.6.

Warranties are not commenced through utilizing of equipment for testing and operation as necessary to acclimate buildings or where necessary to test systems.

4.2.8 <u>Interpretation</u>

The Architect will interpret and decide matters concerning performance and requirements of the Contract Documents. Architect shall make clarifications as necessary to interpret the Contract Documents.

4.3 PROJECT INSPECTOR

4.3.1 General

One or more project inspectors employed by the District and approved by the Division of the State Architect will be assigned to the Work in accordance with the requirements of Title 24 of the California Code of Regulations. The Inspector(s) duties are as specifically defined in Title 24 Section 4-333 and 4-342 and in DSA IR A-8.

4.3.2 Inspector's Duties and DSA Noted Timelines for Inspection

All Work shall be under the observation of the Inspector. Contractor shall establish a protocol for requesting inspection with Inspector so as to not delay the Work and provide adequate time for the Inspector to perform inspection. If such a protocol is not established ahead of time, Inspector may utilize the time criteria set by Title 24 of 48 hours in advance of submitting form DSA 156 for each new area. The Inspector shall have free access to any or all parts of the Work at any time. The Contractor shall furnish the Inspector such information as may be necessary to keep the Inspector fully informed regarding progress and manner of Work and character of materials. Such observations shall not, in any way, relieve the Contractor from responsibility for full compliance with all terms and conditions of the Contract, or be construed to lessen to any degree the Contractor's responsibility for providing efficient and capable superintendence. The Inspector is not authorized to make changes in the drawings or specifications nor shall the Inspector's approval of the Work and methods relieve the Contractor of responsibility for the correction of subsequently discovered defects, or from its obligation to comply with the Contract Documents.

Inspector shall electronically post DSA required documents on the DSA electronic posting website. It is the Contractor's responsibility to determine the status of posting and determine if all the criteria for sign off of a category of Work on the Project Inspection Card (Form DSA 152) as defined more thoroughly in the most current version of the DSA 152 manual posted on the DSA website.

Inspector may collaborate with Contractor about approval of areas that may be constructed and approved incrementally under the DSA 152 card pursuant to the guidelines of PR-13 at Article 1.17. Inspector shall work with Contractor to present incremental approval proposals to DSA.

4.3.3 Inspector's Authority to Reject or Stop Work

The Inspector shall have the authority to reject Work whenever provisions of the Contract Documents are not being complied with, and Contractor shall instruct its Subcontractors and employees accordingly. In addition, the Inspector may stop any Work that poses a probable risk of harm to persons or property. The Contractor shall instruct its employees, Subcontractors, material and equipment suppliers, etc., accordingly. The absence of any Stop Work Order or rejection of any portion of the Work shall not relieve the Contractor from any of its obligations pursuant to the Contract Documents.

4.3.4 <u>Inspector's Facilities</u>

Within seven (7) days after notice to proceed, the Contractor shall provide the Inspector with the temporary facilities as required. More specific requirements for the Inspector facilities may be further described under Division 1 of the Specifications.

4.3.5 Testing Times

The District will provide inspection and testing at its cost during the normal eight (8) hour day Monday through Friday (except holidays). Work by the Contractor outside of the normal eight (8) hour day shall constitute an authorization from the Contractor to the District to provide inspection and testing as required outside of the normal eight (8) hour day. Contractor shall provide adequate time for inspections so as to not delay the Work. An advanced timing protocol may be established pursuant to Article 4.3.2. If the Contractor is behind Schedule then it is incumbent on the Contractor to provide advance forecast through look ahead of the anticipated date for inspection so the Inspector may plan their activities so as to not delay the Project. Contractor shall reimburse District for any additional costs associated with inspection and testing (including re-inspection and re-testing) outside the normal eight-hour day and for any retests caused by the Contractor.

It is the Contractor's responsibility to request special inspections with sufficient time so all testing may be timely completed and posted so work may proceed and the Inspector's signature is attached to the Project Inspection Card (Form 152). Specifically, timely request for special inspection under the DSA Verified Report Forms 291 (laboratory), DSA Verified Report Form 292 (Special Inspection), and DSA Verified Report 293 (geotechnical) since DSA requirements under PR 13-01 specifically gives the Special Inspections 14 days to post to the DSA website. Failure to plan and pay (if applicable) for quicker delivery of Special Inspections may be counted as Float, but is not considered Governmental Delay Float under Article 8.1.4.

4.3.6 Special Inspection Out of State, Out of Country or Remote from Project

If Contractor has a subcontractor or supplier that requires in plant or special inspections or tests that are out of the Country, out of State or a Distance of more than 200 miles from the Project site, the District shall provide the Special Inspector or individual performing tests time for inspection and testing during normal work hours. Contractor, however, is responsible for the cost of travel, housing, food, out of area premiums that may be in the Inspector/Testing Agreement with District, or other expenses necessary to ensure proper inspection or testing is provided by a DSA Certified Inspector, Special Inspector, or individual performing tests. In some cases all three (DSA Inspector, Special Inspector, and Testing) may be required. In addition, if the DSA Certified Inspector, Special Inspector, or individual performing test

has contractual travel clauses or special rates for out of town inspection, Contractor is responsible for all costs associated with the contractual travel costs in addition to all other costs. Arrangements for inspection and/or testing shall be made far enough in advance so as to not delay the Work.

4.4 STOP WORK ORDER

DSA may issue a Stop Work Order, or an Order to Comply, when either (1) the Work proceeds without DSA approval; (2)_the Work proceeds without a DSA Inspector of Record, or (3) where DSA determines that the Work is not being performed in accordance with applicable rules and regulations, and would compromise the structural integrity of the Project or would endanger lives. If a Stop Work Order is issued, the Work in the affected area shall cease until DSA withdraws the Stop Work Order. Pursuant to Education Code Section 17307.5(b) and Education Code Section 81133.5, the District shall not be held liable in any action filed against the District for any delays caused by compliance with the Stop Work Order, except to the extent that an error or omission by the District is the basis for the issuance of the Stop Work Order.

Examples of Stop Work Orders that may be issued by DSA include DSA Bulletin 07-04 and Policy 10-01, the installation of Automatic Fire Sprinkler Systems without approved plans, covering Work that has not been approved by Inspector on DSA Project Inspection Card (Form 152).

4.5 <u>RESPONSIBILITY FOR ADDITIONAL CHARGES INCURRED BY THE DISTRICT FOR PROFESSIONAL SERVICES</u>

If at any time prior to the completion of the requirements under the Contract Documents, the District is required to provide or secure additional professional services (including CM, Inspection, Architect, Engineering and Special Consultant Services) for any reason by any act of the Contractor, the District may seek a Deductive Change Order for any costs incurred for any such additional services, which costs shall be deducted from the next progress payment. A Deductive Change Order shall be independent from any other District remedies and shall not be considered a waiver of any District rights or remedies. If payments then or thereafter due to the Contractor are not sufficient to cover such amounts, the Contractor shall pay the difference to the District. Additional services shall include, but shall not be limited to, the following:

- a. Services made necessary by the default of the Contractor (Article 14 or Article 2.2).
- b. Services made necessary due to the defects or deficiencies in the Work of the Contractor (Article 2.2 and Article 9.6).
- c. Spurious or frivolous RFI's issued that do not conform to the requirements of Article 7.4. Issuance of the same RFI after receiving an answer from the Architect or Engineer
- d. Review of Schedules that are provided by Contractor that do not Conform with the Requirements of Article 8.
- e. Preparation of a CCD or ICD to correct a Contractor Deficiency, or Contractor Caused Notice of Non-Compliance (Article 7.3).
- f. Review of Incomplete Shop Drawings or Submittals, including the submission of Piecemeal Shop Drawings or Submittals unless piecemeal Submittals are specifically agreed upon by District (Article 3.9)

- g. Services required by failure of the Contractor to perform according to any provision of the Contract Documents.
- h. Services in connection with evaluating substitutions of products, materials, equipment, Subcontractors' proposed by the Contractor, and making subsequent revisions to drawings, specifications, obtaining DSA approvals, DSA costs for review of CCD's, other governmental agency review costs, and providing other documentation required (except for the situation where the specified item is no longer manufactured or available). (Article 3.10)
- i. Services for evaluating and processing Claims or Disputes submitted by the Contractor in connection with the Work outside the established Change Order process.
- j. Services required by the failure of the Contractor to prosecute the Work in a timely manner in compliance within the specified time of completion.
- k. Services in conjunction with the testing, adjusting, balancing and start-up of equipment other than the normal amount customarily associated for the type of Work involved.
- 1. Services in conjunction with more than one (1) re-review of Submittals of Shop Drawings, product data, samples, RFI's etc.

4.6 DISPUTES AND CLAIMS

4.6.1 Decision of Architect

Disputes between District and Contractor involving money or time, including those alleging an error or omission by the Architect shall be referred initially to the Architect for action as provided in Paragraph 4.6.2 within ten (10) days after Contractor's Article 7 request for Change is denied. If there is a CM, the CM shall receive the Dispute and may review and also assemble opinions and documents to assist the Architect. A decision by the Architect, as provided in Paragraph 4.6.5, shall be required as a condition precedent to proceeding with remedies set forth in Paragraph 4.6.9 as to all such matters arising prior to the date Retention Payment Application is due, regardless of whether such matters relate to execution and progress of the Work, or the extent to which the Work has reached Final Completion.

The condition precedent of an Architect decision shall be waived if: (1) the position of Architect is vacant; (2) the Architect has not received evidence or has failed to render a decision within agreed time limit; (3) the Architect has failed to take action required under Paragraph 4.6.5 within thirty (30) days after the Claim is made, forty-five (45) days have passed after the Claim has been referred to the Architect; or (4) the Claim relates to a Stop Notice Claim not arising from any extra change order or Immediate Change Directive for which approval has not been provided.

4.6.2 Architect's Review

The Architect (and CM) will review Disputes and take one or more of the following preliminary actions upon receipt of a Dispute: (1) request additional supporting data from the claimant; (2) submit a schedule to the parties indicating when the Architect expects to take action; (3) reject the Dispute in whole or in part, stating reasons for rejection; (4) recommend approval of the claim; or (5) suggest a compromise. The Architect may also, but is not obligated to, notify the surety, if any, of the nature and amount of the claim.

4.6.2.1 *Architectural Immunity*. Architect Review of claims shall be impartial and meant to resolve Disputes. Pursuant to the case, <u>Huber, Hunt & Nichols, Inc. v. Moore</u> (1977) 67 Cal.App.3d 278, the Architect is provided a quasi-judicial immunity for interpreting and deciding Disputes between a District and Contractor.

4.6.3 Documentation if Resolved

If a Dispute has been resolved, the Architect (and/or CM) will prepare a Change Order or obtain appropriate documentation to document the terms for Board approval.

4.6.4 Actions if Not Resolved

If a Dispute has not been resolved and all documentation requested pursuant to Paragraph 4.6.2 has been provided, the Contractor shall, within ten (10) days after the Architect's preliminary response, assemble all the documents involved in the Dispute including copies of all back-up documentation of costs and the basis for the Dispute and take one or more of the following actions: (1) modify the initial Dispute; (2) notify the Architect that the initial Dispute stands; or (3) supplement with additional supporting data and re-submit to the Architect under Article 4.6.2.

4.6.5 Architect's Written Decision

If a Dispute has not been resolved after consideration of the foregoing and of other evidence presented by the parties or requested by the Architect, the Architect (or Architect through CM) the Architect shall provide a written decision twenty (20) days after compliance with Article 4.6.4. Upon expiration of such time period, the Architect (or Architect through CM) will render to the parties its written decision relative to the Dispute, including any change in the Contract Sum or Contract Time or both.

The Architect may also request reasonable additional time to complete Architect's written decision.

If the resolution of the Dispute by the Architect is not satisfactory to the Contractor and copies of all back-up documentation of costs and the basis for the Dispute is fully articulated in a package of material that is complete, the Contractor may then submit a Claim to the District under Article 4.6.9

4.6.6 <u>Continuing Contract Performance</u>

Pending final resolution of a Dispute or Claim, including, negotiation, mediation, arbitration, or litigation, the Contractor shall proceed diligently with performance of the Contract, and the District shall continue to make any undisputed payments in accordance with the Contract (less any withholdings or offsets). If the Dispute or Claim is not resolved, Contractor agrees it will neither rescind the Contract nor stop the progress of the work, but Contractor's sole remedy shall be to submit such controversy to determination by a court of competent jurisdiction in the county where the project is located, after the project has been completed, and not before.

4.6.6.1 District's Option to Submit Individual Disputes to Arbitration during Claims and Disputes Process. At the District's sole option, in order to more efficiently resolve claims during the Project and prior to the completion of the Claims Process, pursuant to Government Code Section 9201, the District may submit individual Disputes or Claims for binding arbitration and Contractor agrees to the resolution of for each individual Dispute or Claim by an Arbitrator, including resolution of time and delays. If binding arbitration is utilized for individual disputes, such resolution is full and final as to that particular Dispute or Claim. THIS INDIVIDUAL DISPUTE ARBITRATION PROCESS IS NOT AN

ARBITRATION CLAUSE AND SHALL NOT BE CONSTRUED AS AN AGREEMENT TO ARBITRATE. THIS INDIVIDUAL DISPUTES ARBITRATION PROCESS IS FOR THE SOLE PURPOSE OF STREAMLINING AND RESOLVING CLAIMS DURING CONSTRUCTION AND SHALL BE REQUESTED ON SPECIFIC INDIVIDUAL ITEMS BY THE DISTRICT PRIOR TO RETENTION PAYMENT (EVEN IF THERE ARE DEDUCTIONS MADE FROM RETENTION PAYMENT) WHICH REPRESENTS THE FINAL COMPLETION OF THE PROJECT.

- a. If there is no Retention remaining on the Project, Individual Disputes initiated prior to Project Final Completion shall continue until a final disposition of the Arbitration or resolution of the individual Claim or Dispute.
- b. <u>No Tolling</u>. The Arbitration process shall not toll the Disputes, Claims, or Appeals process under Article 4.6 or the requirement to submit claims to Court under Article 4.6.9.4.

4.6.7 <u>Claims for Concealed Trenches or Excavations Greater Than Four Feet Below the Surface</u>

When any excavation or trenching extends greater than four feet below the surface or if any condition involving hazardous substances are encountered:

- a. <u>Immediately upon discovery</u>, The Contractor shall promptly, and before the following conditions are disturbed, notify the District, by telephone and in writing, of the condition except:
 - 1. If such condition is a hazardous waste condition, Contractor's bid includes removal or disposal of hazardous substances. Material that the Contractor believes may be a 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 the provisions of existing law. In such case, the notice bulletin procedures of Article 7 apply.
 - 2. Subsurface or latent physical conditions at the Site differing from those indicated in the Drawings, Specifications, Soils Report, and from Contractor's own investigation under Article 2.1.2.
 - 3. Unknown physical conditions at the Site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in Work of the character provided for in the Contract.
- b. <u>The District shall investigate the conditions</u>, and if District finds that the conditions do materially so differ, 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 or construction change directive under the procedures described in the Contract.
- c. <u>In the event that a dispute</u> arises between the public entity or District and the Contractor whether the conditions materially differ, 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 which pertain to the resolution of disputes and protests between the contracting parties.

4.6.8 Dispute Concerning Extension of Time.

If Contractor and District cannot agree upon an extension of time, whether compensable or not, then Contractor must have first completed the procedures set forth in Paragraph 8.4. Upon completion of the procedures set forth under Paragraph 8.4, Contractor must then comply with the requirements in this Article including those set forth under Paragraph 4.6.9.

4.6.9 Claims Procedures

Pursuant to the remedies under Public Contract Code Section 9201 and Government Code Section 930.2, Contractor, through execution of this Agreement, also agrees to comply with the Claims requirements of Article 4.6 to quickly and efficiently resolve disputes. Further, to provide a level of accuracy to the records submitted, the District shall have the right to audit books and records pursuant to Article 13.11 based on the actual costs incurred and to reduce the uncertainty in resolving disputes with limited information.

4.6.9.1 Procedure Applicable to All Claims

- a. <u>Definition of Claim</u>: A "Claim" is where a Dispute between the parties rises to the level where backup documentation is assembled and provided to the District as a separate demand by the Contractor for (1) time extension, (2) 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 the claimant is not otherwise entitled to, or (3) and amount the payment of which is disputed by the District. (If the Claim is for damages associated with a DSA Stop Work Order, the Contractor shall not be entitled to a request for Compensation, but shall be entitled to utilize Governmental Delay Float (See Article 8.1.4.1.))
- b. <u>Filing Claim Is Not Basis to Discontinue Work</u>: The Contractor shall promptly comply with Work under the Contract or Work requested by the District even though a written claim has been filed. The Contractor and the District shall make good faith efforts to resolve any and all claims that may arise during the performance of the Work covered by this Contract.
- c. <u>Claim Notification</u>: The Contractor shall within seven (7) calendar days after the Written Decision of the Architect, or if the time period for Architect's Decision has passed under Article 4.6.1, submit a notification, in writing, with the District (and the District's CM) stating clearly the basis for the claim. If the notification is not submitted within seven (7) days after the Written Decision of the Architect or the passage of time under Article 4.6.1, the Contractor shall be deemed to have waived all right to assert the claim, and the claim shall be denied. Claims submitted after the Retention Payment date shall also be considered null and void by the

District. All claims shall be reviewed pursuant to Article 4.6.1 through 4.6.5.

The Formal Notification of Claim must be presented as follows:

- (1) The term "Claim" must be at the top of the page in no smaller than 20 point writing.
- (2) All documentation submitted pursuant to Article 4.6 to the Architect shall be submitted with the "claim."
- (3) A stack of documents, copy of all project documents, or the submission of random documents shall not constitute an adequate reference to supporting documentation
- (4) Any additional or supporting documentation that Contractor believes is relevant should be submitted at this time.
- d. <u>Formal Claim Appeal Submission</u>: If the Contractor does not concur with the District's decision regarding the Claim Notification, the Contractor will issue a formal Claim Appeal within fourteen (14) days of receipt of the District's decision and all detailed information in support of the Claim Appeal within thirty (30) days. All appeals shall be submitted <u>before</u> Retention Payment. If the Claim Appeal is not submitted within fourteen (14) calendar days and detailed information within thirty (30) days, the Contractor shall be deemed to have waived its right to assert the Claim and the Claim shall be denied. Contractor's failure to submit any detailed information which is in the possession of Contractor shall render such information inadmissible by Contractor at trial or arbitration.
- e. <u>Appeal Claim Format</u>: The Contractor shall provide all written detailed documentation which supports the claim, including but not limited to: arguments, justifications, cost, estimates, Schedule analysis and detailed documentation. The format of the Claim Appeal shall be as follows:
 - 1. Cover letter.
 - 2. Summary of factual basis of Claim and amount of claim.
 - 3. Summary of the basis of the Claim, including the specific clause and section under the Contract under which the claim is made.
 - 4. Documents relating to the Claim, including:
 - a. Specifications sections in question.
 - b. Relevant portions of the Drawings
 - c. Applicable Clarifications (RFI's)
 - d. Other relevant information, including responses that were received.
 - e. Contractor Analysis of Claim merit.
 - (a) Contractor's analysis of any subcontractor vendor claims that are being passed through.

- (b) Any analysis performed by outside consultants
- (c) Any legal analysis that Contractor deems relevant
- f. Break down of all costs associated with the Claim.
- g. For claims relating to time extensions, an analysis and supporting documentation evidencing any effect upon the critical path in conformance with the requirements of Article 8.4.4.1h.Chronology of events and related correspondence.
- i. Applicable Daily reports and logs.
 - (a) If the Daily Reports or Logs are not available, lost or destroyed, there shall be a presumption that the lost documentation was unfavorable to the Contractor. See California Civil Jury Instruction 204
- k. For Claims involving overhead, cost escalation, acceleration, disruption or increased costs, a full version of job costs reports organized by category of work or Schedule of Values with budget information tracked against actual costs. Any and all supporting back-up data, including the original bid (and associated original unaltered metadata).
 - (a) The meta data and bid information shall be provided confidentially and subject to a protective order to prevent dissemination to other contractors or to the public. However, the bid documentation should remain intact and available for review and inspection in case of this type of increased cost claim.
 - (b) This data on the bid shall be made available to any District attorneys or experts and shall also be utilized as evidence for any legal proceedings.
 - (c) If the bid documentation is not available, lost or destroyed, there shall be a presumption that the lost bid documentation was unfavorable to the Contractor. See California Civil Jury Instruction 204.
- f. Certification: The Contractor (and subcontractors, if applicable) shall submit with the claim a certification under penalty of perjury:
 - 1. That the Contractor has reviewed the claim and that such claim is made in good faith;
 - 2. Supporting data are accurate and complete to the best of the Contractor's knowledge and belief;
 - 3. The amount requested accurately reflects the amount of compensation for which the Contractor believes the District is liable.

- 4. That the Contractor is familiar with Government Code Sections 12650 et seq. and Penal Code Section 72 and that false claims can lead to substantial fines and/or imprisonment.
- g. <u>Signature of Certification</u>: If the Contractor is not an individual, the certification shall be executed by an officer or general partner of the Contractor having overall responsibility for the conduct of the Contractor's affairs.
- h. <u>Mandatory Claim Appeal Procedure</u>: The Contractor's Claim Appeal shall be denied if it fails to follow the requirements of this Article.
- 4.6.9.2 <u>District (through CM or District's Agent or Attorney) May Request Additional Information</u>: Within thirty (30) days of receipt of the Claim Appeal and the information under this Article, the District may request in writing any additional documentation supporting the claim or documentation relating to defenses to the claim which the District may assert. If additional documents are required, the time in which the Claim is evaluated may be extended by a reasonable time so the Claim and additional documents may be reviewed. *Claims Procedures in Addition to Government Code Claim.* Nothing in the claims procedures set forth in this Article 4 of the General Conditions shall act to waive or relieve the Contractor from meeting the requirements set forth in Government Code section 900 et seq.
- 4.6.9.3 *Binding Arbitration of Individual Claim Issues*. To expedite resolution of Claims pursuant to Public Contract Code Section 9201, at the District's sole option, the District may submit individual Claims to Arbitration prior to Retention Payment consistent with the requirements of Article 4.6.6.1.
- 4.6.9.4 Resolution of Claims in Court of Competent Jurisdiction. If Claims are not resolved under the procedure set forth and pursuant to Article 4.6.9, such claim or controversy shall be submitted to a court in Riverside County after the Project has been completed, and not before.
- 4.6.9.5 Warranties, Guarantees and Obligations. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto, and, in particular but without limitation, the warranties, guarantees and obligations imposed upon Contractor by the General Conditions and amendments thereto; and all of the rights and remedies available to District and Architect thereunder, are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by laws or regulations by special warranty or guarantee or by other provisions of the Contract Documents, and the provisions of this Paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right and remedy to which they apply.

ARTICLE 5 SUBCONTRACTORS

5.1 **DEFINITIONS**

5.1.1 Subcontractual Relations Bound to Same Contract Terms at General Contractor

By appropriate agreement, written where legally required for validity, the Contractor shall require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound to the Contractor by terms of the Contract Documents, and to assume toward the Contractor all the same obligations and responsibilities, assumed by Contractor pursuant to the Contract Documents. Each subcontract agreement shall preserve and protect the rights of the District and the Architect under the Contract Documents with respect to the Work to be performed by the Subcontractor so that subcontracting thereof will not prejudice such rights. Where appropriate, the Contractor shall require each Subcontractor to enter into similar agreements with Sub-subcontractors. The Contractor shall make available to each proposed Subcontractor, prior to the execution of the subcontract agreement, copies of the Contract Documents to which the Subcontractor will be bound. Upon written request of the Subcontractor, the Contractor shall identify to the Subcontractor the terms and conditions of the proposed subcontract agreement, which may be at variance with the Contract Documents. Subcontractors shall similarly make copies of applicable portions of such documents available to their respective proposed Sub-subcontractors.

5.1.2 Subcontractor Licenses

All subcontractors shall be properly licensed by the California State Licensing Board at the time bids are opened by the District.

5.1.3 Substitution of Subcontractor

Substitution of Subcontractors shall be permitted only as authorized under Public Contract Code §§ 4107 et. seq. Any substitutions of Subcontractors shall not result in any increase in the Contract Price or result in the granting of any extension of time for the completion of the Project.

5.1.4 Contingent Assignment of Subcontracts and Other Contracts

Each subcontract, purchase order, vendor contract or agreement for any portion of the Work is hereby assigned by the Contractor to the District provided that:

- a. Such assignment is effective only after Termination of this Contract with the Contractor by the District as provided under Article 14 and only for those subcontracts and other contracts and agreements that the District accepts by notifying the Subcontractor or Materialman (as may be applicable) in writing; and
- b. Such assignment is subject to the prior rights of the Surety(ies) obligated under the Payment Bond and Performance Bond.
- c. The Contractor shall include adequate provisions for this contingent assignment of subcontracts and other contracts and agreements in each such document.

ARTICLE 6 CONSTRUCTION BY DISTRICT OR BY SEPARATE CONTRACTORS

6.1 <u>DISTRICT'S RIGHT TO PERFORM CONSTRUCTION AND TO AWARD SEPARATE</u> <u>CONTRACTS</u>

6.1.1 Separate Contracts.

- 6.1.1.1 District reserves the right to let other contracts in connection with this Work. Contractor shall afford other contractors reasonable opportunity for (1) introduction and storage of their materials; (2) access to the Work; and (3) execution of their work. Contractor shall properly connect and coordinate its work with that of other Contractors.
- 6.1.1.2 If any part of Contractor's Work depends on proper execution or results of any other contractor, the Contractor shall inspect and within seven (7) days or less, report to Architect, in writing, any defects in such work that render it unsuitable for proper execution of Contractor's Work. Contractor will be held accountable for damages to District for that Work which it failed to inspect or should have inspected. Contractor's failure to inspect and report shall constitute its acceptance of other contractors' Work as fit and proper for reception of its Work, except as to defects which may develop in other contractors' work after execution of Contractor's work.
- 6.1.1.3 To ensure proper execution of its subsequent Work, Contractor shall measure and inspect Work already in place and shall at once report to the Architect in writing any discrepancy between executed Work as built and the Contract Documents.
- 6.1.1.4 Contractor shall ascertain to its own satisfaction the scope of the Project and nature of any other contracts that have been or may be awarded by District in prosecution of the Project and the potential impact of such Work on the Baseline Schedule or Schedule updates.
- 6.1.1.5 Nothing herein contained shall be interpreted as granting to Contractor the exclusive occupancy at the site of Project. Contractor shall not cause any unnecessary hindrance or delay to any other contractor working on the Project Site. If execution of any contract by the District is likely to cause interference with Contractor's performance of this Contract, once Contractor provides District timely written notice and identifies the Schedule Conflict, District shall decide which contractor shall cease work temporarily and which contractor shall continue, or whether Work can be coordinated so that contractors may proceed simultaneously.
- 6.1.1.6 District shall not be responsible for any damages suffered or extra costs incurred by Contractor resulting directly or indirectly from award or performance or attempted performance of any other contract or contracts at the Project necessary for the performance of the Project (examples include Electrical Utility Contractor, separate offsite contractor, a separate grading contractor, furniture installation etc).

CONTRACTOR IS AWARE THAT THIS CONTRACT MAY BE SPLIT INTO SEVERAL PHASES BASED ON DOCUMENTATION PROVIDED WITH THIS BID OR DISCUSSED AT THE JOB WALK. CONTRACTOR HAS MADE ALLOWANCE FOR ANY DELAYS OR DAMAGES WHICH MAY ARISE FROM COORDINATION WITH CONTRACTORS REQUIRED FOR OTHER PHASES. IF ANY DELAYS SHOULD ARISE FROM ANOTHER CONTRACTOR WORKING ON A DIFFERENT PHASE, CONTRACTOR'S SOLE REMEDY FOR

DAMAGES, INCLUDING DELAY DAMAGES, SHALL BE AGAINST THE CONTRACTOR WHO CAUSED SUCH DAMAGE AND NOT THE DISTRICT. CONTRACTOR SHALL PROVIDE ACCESS TO OTHER CONTRACTORS FOR OTHER PHASES AS NECESSARY TO PREVENT DELAYS AND DAMAGES TO OTHER CONTRACTORS WORKING ON OTHER PHASES OF CONSTRUCTION.

6.1.2 District's Right to Carry Out the Work

See Paragraph 2.2.

6.1.3 <u>Designation as Contractor</u>

When separate contracts are awarded to contractors on the Project Site, the term "Contractor" in the Contract Documents in each case shall mean the Contractor who executes each separate District/Contractor Agreement.

6.1.4 District Notice to the Contractor of Other Contractors

The Contractor shall have overall responsibility to reasonably coordinate and schedule Contractor's activities with the activities of the District's forces and of each separate contractor with the Work of the Contractor, who shall cooperate with them. The Contractor shall participate with other separate contractors and the District in reviewing their construction schedules when:

- 6.1.4.1 Notice is provided in the Contract Documents of other scope of Work,
- 6.1.4.2 In the case of a Multi-Prime Project,
- 6.1.4.3 In the case where there is known Work to be Performed by other Contractors
- 6.1.4.4 For outside contractors hired by utilities
- 6.1.4.5 Where the Contract Document provides "Work by Others" or "By Others"
- 6.1.4.6 Where specifically noted during the Pre-Bid Conference
- 6.1.4.7 Where specifically noted in the Mandatory Job Walk
- 6.1.4.8 By CO or ICD,
- 6.1.4.9 With respect to the installation of:
 - a. Furniture,
 - b. Electronics and networking equipment,
 - c. Cabling,
 - d. Low voltage,
 - e. Off-site work,
 - f. Grading (when by a separate contractor),
 - g. Environmental remediation when excluded by the Contract Documents (i.e. asbestos, lead or other hazardous waste removal)
 - h. Deep cleaning crews,
 - i. Commissioning and testing,
 - j. Keying and re-keying,
 - k. Programming

6.1.4.10 Exception where no Coordination is Required on the Part of the Contractor for Turn Key Operations. If the Contractor has specifically outlined a "Turn Key" or "Complete Delivery" of a final completed operational school in writing as part of the Baseline Schedule..

6.1.4.11 The Contractor shall make any revisions to the Baseline Schedule (or Schedule Update) and Contract Sum deemed necessary after a joint review and mutual agreement. The Baseline Schedule (or Schedule Update) shall then constitute the Schedules to be used by the Contractor, separate contractors, and the District until subsequently revised. Additionally, Contractor shall coordinate with Architect, District, and Inspector to ensure timely and proper progress of Work.

6.2 CONSTRUCTIVE OWNERSHIP OF PROJECT SITE AND MATERIAL

Upon commencement of Work, the Contractor becomes the constructive owner of the entire site, improvements, material and equipment on Project site. Contractor must ensure proper safety and storage of all materials and assumes responsibility as if Contractor was the owner of the Project site. All risk of loss or damage shall be borne by Contractor during the Work until the date of Completion. As constructive owner of the Project site, Contractor must carry adequate insurance in case of calamity and is not entitled to rely on the insurance requirements as set forth in this Agreement as being adequate coverage in case of calamity.

6.3 <u>DISTRICT'S RIGHT TO CLEAN UP</u>

If a dispute arises among the Contractor, separate contractors, and the District as to the responsibility under their respective contracts for maintaining the premises and surrounding area free from waste materials and rubbish as described in Paragraph 3.12, the District may clean up and allocate the cost among those it deems responsible.

ARTICLE 7 CHANGES IN THE WORK

7.1 CHANGES

7.1.1 No Changes Without Authorization

There shall be no change whatsoever in the drawings, specifications, or in the Work without an executed Change Order, Change Order Request, Immediate Change Directive, or order by the Architect for a minor change in the Work 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 or designated representative with delegated authority (subject to Board ratification) has authorized the same and the cost thereof approved in writing by Change Order or executed Construction Change Directive. 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. 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. Notwithstanding anything to the contrary in this Article 7, all Change Orders shall be prepared and issued by the Architect and shall become effective when executed by the District's Governing Board, the Architect, and the Contractor.

Should any Change Order result in an increase in the Contract price, the cost of such Change Order shall be agreed to, in writing, in advance by Contractor and District and be subject to the monetary limitations set forth in Public Contract Code Section 20118.4 (Please check with the District since there are different interpretations of the limitations of Public Contract Code Section 20118.4 depending on the County the Project is located). In the event that Contractor proceeds with any change in Work without first notifying District and obtaining the Architect's and District's consent to a Change Order, Contractor waives any claim of additional compensation for such additional work and Contractor takes the risk that a Notice of Non-Compliance may issue, a critical path Project delay may occur, and the Contractor will also be responsible for the cost of preparation and DSA CCD review fees for a corrective DSA approved Construction Change Directive.

CONTRACTOR UNDERSTANDS, ACKNOWLEDGES, AND AGREES THAT THE REASON FOR THIS NOTICE REQUIREMENT 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 SUCH CHANGE IN WORK BECOMES UNNECESSARY AND TO AVOID THE POSSIBLE DELAYS ASSOCIATED WITH THE ISSUANCE OF A NOTICE OF NON-COMPLIANCE.

7.1.2 Notices of Non-Compliance

Contractor deviation or changes from approved plans and specifications may result in the issuance of a Notice of Non-Compliance (See DSA Form 154). Contractor is specifically notified that deviations from the plans and specifications, whether major or minor, may result in the requirement to obtain a DSA Construction Change Directive to correct the Notice of Non-Compliance. (See Article 7.3.1 for Definition of CCD). In some cases, the lack of a DSA approved CCD AND verification from the Inspector that a Notice of Non-Compliance has been corrected may result in a critical path delay to the next stage of Work on the Project. Specifically, a deviation from approved plans and specifications may prevent approval of the category of Work listed in the DSA 152 Project Inspection Card. Any delays that are caused by the Contractor's deviation from approved plans and specifications shall be the Contractor's responsibility.

7.1.3 <u>Architect Authority</u>

The Architect will have authority to order minor changes in the Work that do not involve DSA Approval not involving any adjustment in the Contract Sum, or an extension of the Contract Time.

7.2 CHANGE ORDERS ("CO")

A CO is a written instrument prepared by the Architect and signed by the District (as authorized by the District's Governing Board), the Contractor, and the Architect stating their agreement upon all of the following:

- a. A description of a change in the Work;
- b. The amount of the adjustment in the Contract Sum, if any; and
- c. The extent of the adjustment in the Contract Time, if any.

A CO may be comprised of ICD's, Response to RFP's and COR's

7.3 <u>CONSTRUCTION CHANGE DIRECTIVE (CCD Category A, and CCD Category B) and IMMEDIATE CHANGE DIRECTIVE (ICD)</u>

7.3.1 Definitions

- 7.3.1.1 Construction Change Directive (CCD). A Construction Change Directive is a DSA term that is utilized to address changes to the DSA approved plans and specifications. There are two types of Construction Change Directives. (1) DSA approved CCD Category A (DSA Form 140) for Work affecting Structural, Access or Fire-Life Safety of the Project which will require a DSA approval; and, (2) CCD Category B (DSA Form 141) for work NOT affecting Structural Safety, Access Compliance or Fire and Life Safety that will not require a DSA approval (except to confirm that no Approval is required);
- 7.3.1.2 *Immediate Change Directive (ICD)*. An Immediate Change Directive is a written order to the Contractor prepared by the Architect and signed by the District (and CM if there is a CM on the Project) and the Architect, directing a change in the Work and stating a proposed basis for adjustment, if any, in the Contract Sum or Contract Time, or both. The District may by ICD, without invalidating the Contract, direct immediate changes in the Work within the general scope of the Contract consisting of additions, deletions, or other revisions within. If applicable, the Contract Sum and Contract Time will be adjusted accordingly.

In the case of an Immediate Change Directive being issued, Contractor must commence Work immediately or delays from failure to perform the ICD shall be the responsibility of Contractor and the failure to move forward with Work immediately shall also be grounds for Termination under Article 14.

An ICD does not automatically trigger an Article 7.6 Dispute or Claim. Contractor must timely follow the procedures outlined at Article 7.6 and 4.6 where applicable.

Refer to Division 1 for a copy of the proposed Immediate Change Directive form.

7.3.2 <u>Use to Direct Change</u>

An ICD shall be used to move work forward immediately and to avoid delay. In some cases, an ICD shall be issued in the absence of agreement on the terms of a CO, COR, or RFP. A copy of an ICD form is provided in Division 1. The anticipated not to exceed price for the Work will be inserted into the ICD. In the case of an ICD issued to correct Contractor Deficiencies or to correct a Contractor caused Notice of Non-Compliance, the ICD may be issued with \$0 and 0 time. Contract may prepare a COR associated with the ICD pursuant to Article 7. However, Contractor shall proceed with all Work required under an Approved ICD immediately upon issuance. Failure to proceed with the Work under an ICD shall be grounds for Termination for Cause under Article 14 or take over the Work under Article 2.2.

If adequate time exists, an ICD may be subject of an RFP for pricing and determination if any time that may be required. However, if an RFP is not completed, Contractor shall immediately commence Work when an ICD is issued. If the RFP is incomplete, it may still be completed to be submitted for Pricing Purposes as long as the PR is submitted within the timeline provided by the PR, or within 10 days following issuance of the ICD.

7.3.3 <u>ICD Issued Over a Notice of Non-Compliance or to Cover Work Subject to a DSA 152</u> Sign Off

In some cases, an ICD shall be for the purpose of proceeding with Work to keep the Project on Schedule and as an acknowledgement by the District that Contractor is proceeding with Work contrary to a Notice of Non-Compliance, prior to issuance of a DSA approved CCD Category A, or to direct the covering of Work which has not yet received a DSA 152 Inspection Approval to move forward.

- 7.3.3.1 Contractor Compliance with all Aspects of an ICD. Contractor is to undertake the ICD and comply with all aspects of the Work outlined in the ICD. Inspector is to inspect the Work pursuant to the ICD. Failure to follow the ICD may result in deduction of the ICD Work underArticle 2.2 or Termination of the Contractor pursuant to Article 14.
- 7.3.3.2 Exception in the Case of DSA Issued Stop Work Order. Contractor must proceed with an ICD even if a CCD has not been approved by DSA except in the case of a DSA issued Stop Work Order. If a DSA Stop Work Order is issued, Contractor must stop work and wait further direction from the District.
- 7.3.3.3 ICD Due to Contractor Deficiency or Contractor Caused Notice of Non-Compliance. If an ICD is issued to correct a Contractor Deficiency or a Contractor caused notice of Non-Compliance, Contractor specifically acknowledges responsibility for all consequential damages associated with the Contractor Deficiency or Contractor Caused Notice of Non-Compliance and all consequential damages and costs incurred to correct the deficiency under Article 4.5

7.4 REQUEST FOR INFORMATION ("RFI")

7.4.1 Definition

An RFI is a written request prepared by the Contractor requesting the Architect to provide additional information necessary to clarify or amplify an item which the Contractor believes is not clearly shown or called for in the drawings or specifications, or to address problems which have arisen under field conditions.

7.4.1.1 An RFI shall not be used as a vehicle to generate time extensions.

- 7.4.1.2 Resubmission of the same or similar RFI is not acceptable. RFI's that are similar should be addressed in Project meetings where the requestor (Contractor, subcontractor or vendor) is able to address the particular issue with the Architect or Engineer and a resolution addressed in the minutes.
- 7.4.1.3 An RFI response applicable to a specific area cannot be extended to other situations unless specifically addressed in writing within the RFI or in a separate RFI.
- 7.4.1.4 RFI's should provide a proposed solution and should adequately describe the problem that has arisen.

7.4.2 <u>Scope</u>

The RFI shall reference all the applicable Contract Documents including specification section, detail, page numbers, drawing numbers, and sheet numbers, etc. The Contractor shall make suggestions and interpretations of the issue raised by the RFI. An RFI cannot modify the Contract Cost, Contract Time, or the Contract Documents.

7.4.3 Response Time

The Architect must respond to a RFI within a reasonable time after receiving such request. If the Architect's response results in a change in the Work, then such change shall be effected by a written CO, COR RFP or ICD, if appropriate. If the Architect cannot respond to the RFI within a reasonable time, the Architect shall notify the Contractor, with a copy to the Inspector and the District, of the amount of time that will be required to respond.

7.4.4 Costs Incurred

The Contractor shall be responsible for any costs incurred for professional services as more fully set forth in Article 4.5, which shall be subject to a Deductive Change Order, if an RFI requests an interpretation or decision of a matter where the information sought is equally available to the party making such request. District, at its sole discretion, shall issue a Deductive Change Order to Contractor for all such professional services arising from this Article.

7.5 REQUEST FOR PROPOSAL ("RFP")

7.5.1 Definition

An RFP is a written request prepared by the Architect (and/or CM) requesting the Contractor to submit to the District and the Architect an estimate of the effect of a proposed change on the Contract Price and (if applicable) the Contract Time. If Architect issues a Bulletin, the Changed items in the Bulletin shall be addressed as an RFP and all responses shall be prepared to a Bulletin as addressed in this Article 7.5. A form RFP is included in the Division 1 documents.

7.5.2 Scope

An RFP shall contain adequate information, including any necessary drawings and specifications, to enable Contractor to provide the cost breakdowns required by Paragraph 7.7. The Contractor shall not be entitled to any Additional Compensation for preparing a response to an RFP, whether ultimately accepted or not.

7.5.3 Response Time

Contractor shall respond to an RFP within ten (10) days or the time period otherwise set forth in the RFP.

7.6 CHANGE ORDER REQUEST ("COR")

7.6.1 <u>Definition</u>

A COR is a written request prepared by the Contractor supported by backup documentation requesting that the District and the Architect issue a CO based upon a proposed change, cost, time, or cost and time that may be incurred on the Project or arising from an RFP, ICD, or CCD.

7.6.2 Changes in Price

A COR shall include breakdowns per Paragraph 7.7 to validate any change in Contract Price due to proposed change or claim.

7.6.3 <u>Changes in Time</u>

A COR shall also include any additional time required to complete the Project only if the delay is a critical path delay. 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 Project Schedule as defined in Article 8 of the General Contract. A schedule fragnet showing the time delay must be submitted with the COR. Any changes in time will be granted only if there is an impact to the critical path. If Contractor fails to request a time extension in a COR, then the Contractor is thereafter precluded from requesting or claiming a delay.

7.7 COST OF CHANGE ORDERS

7.7.1 <u>Scope</u>

Within ten (10) days after a request is made for a change that impacts the Contract Sum as defined in Paragraph 9.1, the critical path, or the Contract Time as defined in Paragraph 8.1.1, the Contractor shall provide the District and the Architect, with a written estimate of the effect of the proposed CO upon the Contract Sum and the actual cost of construction, which shall include a complete itemized cost breakdown of all labor and material showing actual quantities, hours, unit prices, and wage rates required for the change, and the effect upon the Contract Time of such CO. Changes may be made by District by an appropriate written CO, or, at the District's option, such changes shall be implemented immediately upon the Contractor's receipt of an appropriate written Construction Change Directive.

District may, as provided by law and without affecting the validity of this Agreement, order changes, modification, deletions and extra work by issuance of written CO or Construction Change Directives from time to time during the progress of the Project, Contract sum being adjusted accordingly. All such Work shall be executed under conditions of the original Agreement except that any extension of time caused thereby shall be adjusted at time of ordering such change. District has discretion to order changes on a "time and material" basis with adjustments to time made after Contractor has justified through documentation the impact on the critical path of the Project.

7.7.1.1 *Time and Material Charges*. If the District orders Work on a "time and material" basis, timesheets shall be signed daily by the Inspector or District Designee at or near the time the Work is actually undertaken and shall show the hours worked, and the Work actually completed. No

time sheets shall be signed the next day. A copy shall be provided to the Person signing the document at the time the document is signed, but not before 10 am the following day.

7.7.2 <u>Determination of Cost</u>

The amount of the increase or decrease in the Contract Price from a CO or COR, if any, shall be determined in one or more of the following ways as applicable to a specific situation:

- a. <u>Mutual acceptance</u> of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation. If an agreement cannot be reached within fifteen (15) days after submission and negotiation of Contractor's proposal, Contractor may submit pursuant to Paragraph 7.7.3. Submission of sums which have no basis in fact 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.);
 - 1. If the District objects to 7.7.2(a) as a method for submission due to inaccuracies in the submitted amount, overstatement of manpower or time required to perform the CO, or unreliability of the data provided, the District may either have the Architect or a professional estimator determine the cost for the CO, and the applicable time extension, or the Contractor shall utilize Paragraph 7.7.2(d) or 7.7.3.
 - 2. Once the District provides a written objection to use of Article 7.7.2(a) due to unreliability of the estimated price, the Contractor shall no longer utilize mutual acceptance of a lump sum as a method for submission of CO's and shall provide a breakdown of estimated or actual costs pursuant to Article 7.7.2(d) or 7.7.3.
- b. By unit prices contained in Contractor's original bid and incorporated in the Project documents or fixed by subsequent agreement between District and Contractor;
- c. Cost to be determined in a manner agreed upon by the parties and a mutually acceptable fixed or percentage fee. However, in the case of disagreement, Contractor must utilize the procedure under section 7.7.3; or
- d. By cost of material and labor and percentage of overhead and profit. If the value is determined by this method the following requirements shall apply:
 - 1. Basis for Establishing Costs
 - i. <u>Labor will be the actual cost for wages</u> prevailing locally for each craft or type of workers at the time the extra Work is done, plus employer payments of payroll taxes and workers compensation insurance (exclude insurance costs as part of the Overhead and Profit mark-up), health and welfare, pension, vacation, apprenticeship funds, and other direct costs resulting from Federal, State, or local laws, as well as assessments or benefits required by lawful collective bargaining agreements. In no case shall the total labor costs exceed the applicable prevailing wage rate for that particular classification. The use of a labor

classification which would increase the extra Work cost will not be permitted unless the Contractor establishes the necessity for such additional costs. Labor costs for equipment operators and helpers shall be reported only when such costs are not included in the invoice for equipment rental.

- ii. Materials shall be at invoice or lowest current price at which such materials are locally available and delivered to the Site in the quantities involved, plus sales tax, freight, and delivery. The District reserves the right to approve materials and sources of supply or to supply materials to the Contractor if necessary for the progress of the Work. No markup shall be applied to any material provided by the District.
- iii. <u>Tool and Equipment Rental</u>. No payment will be made for the use of tools which have a replacement value of \$250 or less.

Regardless of ownership, the rates to be used in determining equipment rental costs shall not exceed listed rates prevailing locally at equipment rental agencies or distributors at the time the Work is performed. Rates applied shall be appropriate based on actual equipment need and usage. Monthly, weekly or other extended use rates that results in the lowest cost shall be applied if equipment is used on site for extended periods.

The rental rates paid shall include the cost of fuel, oil, lubrication, supplies, small tools, necessary attachments, repairs and maintenance of any kind, depreciation, storage, insurance (exclude insurance costs due to OCIP coverage), and all incidentals.

Necessary loading and transportation costs for equipment used on the extra Work shall be included. If equipment is used intermittently and, when not in use, could be returned to its rental source at less expense to the District than holding it at the Work Site, it shall be returned unless the Contractor elects to keep it at the Work Site at no expense to the District.

All equipment shall be acceptable to the Inspector, in good working condition, and suitable for the purpose for which it is to be used. Manufacturer's ratings and modifications shall be used to classify equipment, and equipment shall be powered by a unit of at least the minimum rating recommended by the manufacturer.

If tool and equipment charges are part of a Dispute, Claim, or Appeal, the District reserves the right to utilize actual costs for tools and equipment or a depreciation rate for equipment based on audit finding under Article 13.11 and deduct any rental charges that exceed actual or depreciated costs.

e. <u>Other Items</u>. The District may authorize other items which may be required on the extra work. Such items include labor, services, material, and equipment which are different in their nature from those required by the Work, and which are of a type

not ordinarily available from the Contractor or any of the Subcontractors. Invoices covering all such items in detail shall be submitted with the request for payment.

- f. <u>Invoices</u>. Vendors' invoices for material, equipment rental, and other expenditures shall be submitted with the COR. If the request for payment is not substantiated by invoices or other documentation, the District may establish the cost of the item involved at the lowest price which was current at the time of the Daily Report.
- g. Overhead. Overhead, including direct and indirect costs, shall be submitted with the COR and include: field overhead, home office overhead, off-site supervision, CO preparation/negotiation/research, time delays, project interference and disruption, additional guaranty and warranty durations, on-site supervision, additional temporary protection, additional temporary utilities, additional material handling costs, liability and property damage insurance, and additional safety equipment costs.

7.7.3 Format for COR or CO's

The following format shall be used as applicable by the District and the Contractor to communicate proposed additions to the Contract. All costs submitted shall be actual costs and labor shall be unburdened labor. Refer to Division 1 for a copy of the Construction Change Order form.

		EXTRA	<u>CREDIT</u>
(a)	Material (attach itemized quantity and unit cost plus sales tax)		
(b)	Labor (attach itemized hours and rates)		
(c)	Equipment (attach invoices)		
(d)	Subtotal		

		<u>EXTRA</u>	<u>CREDIT</u>
(e)	Social Security, and Unemployment Taxes, not to exceed as follows: FICA @ 6.2%-with a wage ceiling of \$84,900; Medicare @ 1.45%- no wage ceiling; FUTA @ .8%- with a wage ceiling of \$7,000; ETT and SUI @ 2.3%- with a wage ceiling of \$7,000; Workers' Compensation @ 5.94%; Total not-to-exceed is 16.69%. (Note: Modifications to these percentages will be evaluated and possibly modified only on a case-by-case basis and only after proper proof of alternate percentages are documented and approved in advance. In addition, as wage ceilings are met, those corresponding percentages must drop from the "burden" calculations).		
(f)	Subtotal		
(g)	Total Overhead and Profit (inclusive of Liability and Property Damage Insurance): Not to exceed fifteen percent (15%) of Item (f).		
(h)	Subtotal		
(i)	Bond not to exceed one percent (1%) of Item (f)		
(k)	TOTAL		
(1)	Time		

The undersigned Contractor approves the foregoing Change Order or Immediate Change Directive as to the changes, if any, and the Contract price specified for each item and as to the extension of time allowed, if any, for completion of the entire Work on account of said Change Order or Immediate Change Directive, and agrees to furnish all labor, materials and service and perform all Work necessary to complete any additional Work specified therein, for the consideration stated herein. It is understood that said Change Order or Immediate Change Directive shall be effective when approved by the Governing Board of the District.

It is expressly understood that the value of such extra Work or changes, as determined by any of the aforementioned methods, expressly includes any and all of the Contractor's costs and expenses, both direct and indirect, resulting from additional time required on the Project or resulting from delay to the Project. Any costs, expenses, damages or time extensions not included are deemed waived.

The Contractor expressly acknowledges and agrees that any change in the Work performed shall not be deemed to constitute a delay or other basis for claiming additional compensation based on theories including, but not limited to, acceleration, suspension or disruption to the Project.

7.7.3.1 Adjustment for Time and Compensable Delay. A CO shall also include any additional 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 Project Schedule as defined in Article 8 of the General Contract. A schedule fragnet showing the time delay must be submitted with the CO. Any changes in time will be granted only if there is an impact to the critical path. If Contractor fails to request a time extension in a CO, then the Contractor is thereafter precluded from requesting or claiming a delay.

7.7.4 <u>Deductive Change Orders</u>

All Deductive Change Order(s) must be prepared utilizing the form under Paragraph 7.7.3 setting forth the actual costs incurred. Except in the case of an Article 2.2 or 9.6 Deductive Change Order where no mark-up shall be allowed, Contractor will be allowed a maximum of 5% total profit and overhead. Unilateral Deductive Change Orders

For Unilateral Deductive Change Orders, or where credits are due from Contractor for Allowances, Deductive Items, Inspection, Damage, DSA CCD review costs, Architect or Inspector costs for after hours or corrective services, Work removed from the Agreement under Article 2.2 or Article 9.6, there shall be no mark-up.

District may, any time after a Deductive Change Order is presented to Contractor by District for items under Article 2.2 or Article 9.6 of if there is disagreement as to the Deductive Change Order, issue a unilateral Deductive Change Order on the Project and deduct the Deductive Change Order from a Progress Payment, Final Payment, or Retention.

7.7.5 Discounts, Rebates, and Refunds

7.7.6 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 omissions in the Work as provided herein. All CO's are subject to Audit under Article 13.11 for discounts, rebates and refunds. Accounting Records

With respect to portions of the Work performed by COs and Construction Change Directives on a time-and-materials, unit-cost, or similar basis, the Contractor shall keep and maintain cost-accounting records in a format consistent with accepted accounting standards and satisfactory to the District, 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.

Any Time and Material Charges shall require Inspector's signature on Time and Material cards showing the hours worked and the Work actually completed. See Article 7.7.1.1.

7.7.7 <u>Notice Required</u>

If the Contractor desires to initiate a Dispute for an increase in the Contract Price, or any extension in the Contract Time for completion, Contractor shall notify the applicable party responsible for addressing the Dispute or Claim pursuant to Article 4.6. No claim or Dispute 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 CO.

7.7.8 Applicability to Subcontractors

Any requirements under this Article 7 shall be equally applicable to CO's, COR's or ICD's issued to Subcontractors by the Contractor to the same extent required by the Contractor.

7.7.9 <u>Alteration to Change Order Language</u>

Contractor shall not alter or reserve time in COR's, CO's or ICD's. Contractor shall execute finalized CO's and proceed under Paragraph 7.7.7 and Paragraph 4.6 with proper notice. If Contractor intends to reserve time without an approved CPM schedule prepared pursuant to Article 8 or without submitting a Fragnet showing delay to critical path, then Contractor may be prosecuted pursuant to the False Claim Act.

ARTICLE 8 TIME AND SCHEDULE

8.1 **DEFINITIONS**

8.1.1 Contract Time

Contractor shall perform and reach Substantial Completion (See Article 1.1.46) within the time specified in the Agreement Form. Moreover, Contractor shall perform its Work in strict accordance with the Project Milestones in the Contract Documents and shall proceed on a properly developed and approved Baseline Schedule, which represents the Contractor's view of the practical way in which the Work will be accomplished. Note that Contract Time includes and incorporates all Float and other Baseline inclusions as noted in Article 8.3.2.1 and as otherwise specifically noted in Article 8.

8.1.2 Notice to Proceed

District may give a Notice to Proceed within ninety (90) days of the award of the bid by District. Once Contractor has received the notice to proceed, Contractor shall complete the Work in the period of time referenced in the Contract Documents.

In the event that District desires to postpone the giving of the Notice to Proceed beyond this three-month period, it is expressly understood that with reasonable notice to the Contractor, the giving of the date to proceed may be postponed by District. 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 giving of the notice to proceed

If the Contractor believes that a postponement will cause a hardship to Contractor, Contractor may terminate the Contract with written notice to District within 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 and the grounds for notification and hardship shall be subject to Audit pursuant to Article 13.11. Should Contractor terminate the Contract as a result of a notice of postponement, District may award the Contract to the next lowest responsible bidder.

8.1.3 <u>Computation of Time</u>

The term "day" as used in the Contract Documents shall mean calendar day unless otherwise specifically defined.

8.1.4 <u>Float</u>

Float is time the total number of days an activity may be extended or delayed without delaying the Completion Date shown in the schedule. Float will fall into three categories: (1) Rain Days; (2) Governmental Delays; and, (3) Project Float. Project Float and Rain Days are owned by the Project and may be utilized as necessary for critical path delaysonce the days become available for consumption (i.e. the rain day arrives and is not utilized since rain did not occur or Work was performed on the interior of a building). However, Governmental Delay float shall not be utilized for purposes other than to address critical path delays that arise due to approvals, Inspector approvals or verifications on governmental forms.

8.1.4.1 Governmental Delay Float. It is anticipated that there will be governmental generated delays. Specific to DSA approvals, it is anticipated that no less than twnety-five (25) days per calendar year shall be set aside as Governmental Float to be utilized on critical path delays. A pro-rated number of days shall be calculated based on length of Contract Time. (For example, a two (2) year Contract Time shall require fifty (50) days of Governmental Float. If the Contract Time is 182 days, then the Contract Time shall require twelve and one half (12.5) days of Governmental Float) This Governmental Delay float must be incorporated into the schedule and should be incorporated in each critical activity as Contractor deems fit. Specifically, major categories of Work under the DSA 152 (Project Inspection Card) should be allocated Governmental Delay Float at the Contractor's discretion. Governmental Delay Float on the Project may exceed 25 days per one (1) year period, but Contractor is required to include not be less than 25 days of Governmental Delay Float during each one (1) year period.

Contractor's failure to establish a protocol for requesting inspections is not grounds to utilize Governmental Delay Float. As noted in Article 3.1.4, 48 hours advance notice of commencing Work on a new area is required after submitting form DSA 156 and under PR 13-01 Special Inspection reports are not required to be posted until at least 14 days after the Work was inspected. Failure to plan, and pay (if applicable) for quicker delivery of Special Inspections is not Governmental Delay Float under Article 8.1.4.. If Governmental Delay Float is not utilized, this float is carried through to other DSA 152 categories of inspection and consumed over the course of the Project

Governmental Delay Float may be utilized for a DSA Stop Work Order regardless of fault as defined under Education Code Section 17307.5(b).

8.1.4.2 *Inclement Weather (Rain Days)*. The Contractor will only be allowed a time extension for unusually severe weather if it results in precipitation or other conditions which in the amount, frequency, or duration is in excess of the norm at the location and time of year in question as established by NOAA weather data. No less than 22 calendar days for each Calendar year for Southern California will be allotted for in the Contractor's schedule for each winter weather period or carried at the end of the schedule as Rain Float. Float for weather days in other geographical regions shall be adjusted based on NOAA weather data for the geographical location. Contractor has anticipated all the days it takes to dry out and re-prepare areas that may be affected by weather delays which extend beyond the actual weather days. The weather days shall be shown on the schedule and if not used will become float for the Project's use. The Contractor will not be allowed a day-for-day weather delay for periods noted as Float in the Schedule. The Contractor is expected to work seven (7) days per week (if necessary, irrespective of inclement weather), to maintain access, and to protect the Work under construction from the effects of inclement weather. Additional days beyond the NOAA shall be considered under the same criteria that weather days are granted below.

A Rain Day shall be granted by Architect or CM if the weather prevents the Contractor from beginning Work at the usual daily starting time, or prevents the Contractor from proceeding with seventy-five (75%) of the normal labor and equipment force towards completion of the day's current controlling item on the accepted schedule for a period of at least five hours, and the crew is dismissed as a result thereof, the Architect will designate such time as unavoidable delay and grant one (1) critical path activity calendar-day extension if there is no available float for the calendar year.

8.1.4.3 *Project Float*. The Contractor may determine some activities require a lesser duration than allocated and may set aside Float in the Project Schedule. There shall be no early completion. Instead, to the extent float is either addressed at the end of the Project or throughout each category of critical path work, Project Float may be used as necessary during the course of the Project and allocated on a first, come first serve basis. However, the use of Float does not extend to Governmental Delay Float, which shall only be used for Governmental Delays.

8.2 HOURS OF WORK

8.2.1 Sufficient Forces

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

8.2.2 Performance During Working Hours

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

8.2.3 Costs for After Hours Inspections

If the Work done after hours is required by the Contract Documents, a Recovery Schedule, or as a result of the Contractor's failure to plan, and inspection must be conducted outside the Inspector's regular working hours, the costs of any after hour inspections, shall be borne by the Contractor.

If the District allows the Contractor to do Work outside regular working hours for the Contractor's convenience, the costs of any inspections required outside regular working hours shall be invoiced to the Contractor by the District and a Deductive Change Order shall be issued from the next Progress Payment.

If the Contractor elects to perform Work outside the Inspector's regular working hours, costs of any inspections required outside regular working hours shall be invoiced to the Contractor by the District and a Deductive Change Order from the next Progress Payment as a Deductive Change Order.

8.3 PROGRESS AND COMPLETION

8.3.1 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.

8.3.2 <u>Baseline Schedule Requirements</u>

- 8.3.2.1 *Timing*: Within ten (10) calendar days after being awarded the Contract, Contractor shall submit a practical schedule showing the order in which the Contractor proposes to perform the Work, and the dates on which the Contractor contemplates starting and completing the salient categories of the Work. This first schedule which outlines the Contractor's view of the practical way in which the Work will be accomplished is the Baseline Schedule. If the Contractor Fails to submit the Baseline Schedule with the ten (10) days noted then District may withhold processing and approval of progress payments pursuant to Article 9.4 and 9.6.
- 8.3.2.2 *District Review and Approval:* District, Architect and CM will review both a paper and electronic copy of Baseline Schedule and note comments under Article 8.3.2(g) or as otherwise noted in this Article and either approve or disapprove the schedule.

- a. <u>Schedules to be Provided Electronically</u>. All Schedules shall be prepared using an accepted electronic scheduling program acceptable to District. All Schedules shall be delivered in an electronic format usable by the District. All logic ties and electronic information shall be included in the electronic copy of the schedule that is delivered to the District.
- 8.3.2.3 Schedule Must Be Within the Given Contract Time. The schedule shall not exceed time limits set forth in the Contract Documents and shall comply with all of the scheduling requirements as set forth in the Specifications.
- 8.3.2.4 Submittals Must Be Incorporated (See Article 3.7.2 and 3.9.6): Contractor shall include Submittals as line items in the Baseline Schedule as required under Article 3.7.2 and 3.9.6. Submittals shall not delay the Work, Milestones, or the Completion Date. Failure to include Submittals in the Baseline Schedule shall be deemed a material breach by the Contractor.
- 8.3.2.5 Float Must Be Incorporated: The schedule must indicate the beginning and completion of all phases of construction and shall use the "critical path method" (commonly called CPM) for the value reporting, planning and scheduling, of all Work required under the Contract Documents. The schedule must incorporate all Milestones in the Project, apply Governmental Float at each milestone in the Contractor's discretion. The Baseline Schedule shall incorporate any schedule provided by the District as part of the bid and shall note durations that will not be adequate or should be shortened based on Contractor's Review. These changes shall be identified and incorporated into Contractor's baseline schedule as long as requested changes are made within 10 days after the District chooses to move forward with the Project. Scheduling is necessary for the District's adequate monitoring of the progress of the Work and shall be prepared in accordance with the time frame described in Article 8 of the General Conditions. The Architect may disapprove of any schedule or require modification to it if, in the opinion of the Architect or District, adherence to the progress schedule will not cause the Work to be completed in accordance with the Agreement.
- 8.3.2.6 *No Early Completion.* Contractor shall not submit a schedule showing early completion without indicating float time through the date set for Project completion by District. Contractor's schedule shall account for all days past early completion as float which belongs to the Project. Usage of float shall not entitle Contractor to any delay claim or damages due to delay.
- 8.3.2.7 Use of Schedule Provided in Bid Documents. In some cases, the Bid will include a preliminary schedule indicating milestones and construction sequences for the Project along with general timing for the Project. The preliminary schedule is not intended to serve as the Baseline Schedule utilized for construction. It is up to the Contractor to study and develop a Baseline Schedule to address the actual durations and sequences of Work that is anticipated while maintaining the Milestones provided by the District. Contract shall obtain information from Contractor's subcontractors and vendors on the planning, progress, delivery of equipment, coordination, and timing of availability of subcontractors so a practical plan of Work is fully developed and represented in the Baseline Schedule.
- 8.3.2.8 Incorrect Logic, Durations, Sequences, or Critical Path. The District may reject or indicate durations, sequences, critical path or logic are not acceptable and request changes. The electronic copy of the schedule shall have adequate information so logic ties, duration, sequences and critical path may be reviewed electronically. Contractor is to diligently rebuild and resubmit the schedule to represent the Contractor's plan to complete the Work and maintain milestones at the next Progress meeting, or before the next progress meeting. If Contractor is not able to build a schedule that is acceptable to the District or Architect, the District does reserve the right to utilize the unapproved originally submitted Baseline (See Article 8.3.2.12) and the comments submitted to hold Contractor accountable for timely

delivery of Work and maintenance of Milestones. Furthermore, Contractor's representations in Baseline, if unacceptable, may also be used as a basis for termination of the Contract under Article 14 if Contractor fails to adequately maintain the schedule and falls significantly behind without undertaking the efforts to either submit and follow a recovery schedule or fail to submit a recovery schedule and make no effort toward recovery on the Project.

- 8.3.2.9 Contractor Responsibility Even if Schedule Issues Are Not Discovered. Failure on the Part of the District to discover errors or omissions in schedules submitted shall not be construed to be an approval of the error or omission and a flawed schedule is not grounds for a time extension.
 - 8.3.2.9.1 <u>Inclusions in Baseline Schedule.</u> In addition to Scheduling requirements set forth at Article 8.3.2, Contractor is specifically directed to include broken out separately in Contractor's Baseline Schedule and all Schedule updates that provide for the following items required pursuant to these General Conditions, including but not limited to:
 - 1. Rain Day Float (excluding inclement weather) as required under Article 8.1.4.2. For example, if the NOAA provides 22 days of rain days, all 22 days must be incorporated and noted in the schedule. Further, any days required to clean-up or dry out shall be included for operations that are likely to require a clean-up or dry out period. Days that are not utilized shall be considered float owned by the Project.
 - 2. Governmental Delay Float under Article 8.1.4.1. This Governmental Delay Float shall only be utilized for Governmental Delays and shall not be considered available float owned by the Project. This float shall only be distributed to the Project upon the completion of the Project and shall be used to offset liquidated damages and shall not generate compensable delays.
 - 3. Submittal and Shop drawing schedule under Article 3.10.
 - 4. Deferred Approvals under Article 3.11
 - 5. Time for separate contractors, including furniture installation and start up activities, under Article 6.1
 - 6. Coordination and timing of any drawings, approvals, notifications, permitting, connection, and testing for all utilities for the Project. Article 2.1.4.
 - 7. Testing, special events, or school activities
- 8.3.2.10 Failure to include Mandatory Schedule Items. District may withhold payment pursuant to Article 9.3, 9.4 and 9.6. In lieu of withholding payment for failure to include Mandatory Schedule Items, after the District or Architect has notified the Contractor of failure to meet the Baseline Schedule or Updated Schedule Requirements and provided a written notification of this failure and provided a written notice of schedule preparation errors under Article 8.3.2(g), and the Contractor fails to correct the noted deficiencies or the Contractor does not provide an updated schedule correcting the deficiencies, then Contractor shall not be granted an extension of time for failure to obtain necessary items and approvals under Article 8.3.2.1and for the time required for failure to comply with laws, building codes, and other

regulations (including Title 24 of the California Code of Regulations). Contractor shall maintain all required 8.3.2.1 schedule items in the Baseline Schedule and indicate any days that have been used as allowed in Article 8. If Contractor fails to include 8.3.2.1 items in its Baseline Schedule or Schedule Updates and the District either utilizes and Unapproved Schedule under Article 8.3.2.3 or does not object to the inclusion of required scheduling items, then all mandatory schedule inclusions, including float, shall be utilized in the District's discretion. If the Contract Time is exceeded, then Contractor shall be subject to the assessment of liquidated damages pursuant to Article 8.4.

- 8.3.2.11 Failure to Meet Requirements. Failure of the Contractor to provide proper schedules as required by this Article and Article 9 is a material breach of the Contract and grounds for Termination pursuant to Article 14. The District, at its sole discretion, may choose, instead, to withhold, in whole or in part, any Progress Payments or Retention amounts otherwise payable to the Contractor.
- 8.3.2.12 *Use of an Unapproved Baseline Schedule*. If Schedule Submitted is unacceptable to the District (i.e. failing to meet the requirements of Article 8.3.2) and Contractor does not incorporate or address the written comments to the schedule and a Baseline Schedule is not approved, but due to extreme necessity, the District moves forward without an approved Baseline Schedule, Contractor shall diligently revise and meet Schedule update requirements of Article 8 and incorporate all Article 8.3.2 comments in all updates). However, for purposes of Termination pursuant to Article 14, the Schedule initially submitted shall be treated as a Baseline Schedule with durations shortened to accommodate all Float and other mandatory Schedule Requirements under Article 8.3.2.1 as well as incorporate all 8.3.2 revisions from District or Architect that are noted.

8.3.3 <u>Update Schedules</u>

8.3.3.1 Updates Shall Be Based on Approved Baseline Schedule. Except in the case where there has not been agreement as to a Baseline Schedule as addressed in Article 8.3.2.4, after there has been agreement as to the Baseline Schedule, the Baseline Schedule shall be used to build future schedule updates. Schedule Updates shall be a CPM based schedule consistent with the Baseline Schedule requirements of 8.3.2

In the case of utilization of Article 8.3.2.4 and no Baseline has been approved, Schedule updates shall be provided monthly and each update shall incorporate all comments and revisions noted as not complying with the requirements of Article 8.3.2. Contractor shall be held to the Article 8.3.2.4 Unapproved Baseline Schedule, inclusive of all Milestones, adjusted for comments and all required Baseline Schedule Inclusions under Article 8.3.2.1.

- 8.3.3.2 Schedule Updates. Contractor shall update the schedule each month to address actual start dates and durations, the percent complete on activities, actual completion dates, estimated remaining duration for the Work in progress, estimated start dates for Work scheduled to start at future times and changes in duration of Work items
- 8.3.3.3 Listing of Items Causing Delays. Schedule Updates shall provide a listing of activities which are causing delay in the progress of Work and a narrative shall be provided showing a description of problem areas, anticipated delays, and impacts on the Construction Schedule. Simply stating "District Delay" or "Architect Delay" shall be an inadequate listing. Delays shall only be listed if they meet the requirements of Article 8.4.
- 8.3.3.4 *Recovery Schedule*. In addition to providing a schedule update every thirty (30) days, the Contractor, if requested by the Architect or District, shall take the steps necessary to improve

Contractor's progress and demonstrate to the District and Architect that the Contractor has seriously considered how the lost time, the Completion Date, or the milestones that are required to be met within the terms of the Contract. Contractor shall immediately provide a Recovery Schedule showing how Milestones and the Completion Date will be met. In no case, shall a Recovery Schedule be provided later than ten (10) days following the request for a Recovery Schedule from the Architect or District.

- a. <u>Failure to Provide a Recovery Schedule</u>. Shall subject Contractor to the assessment of Liquidated Damages for failure to meet the Contract Time. Refusal or failure to provide a recovery schedule shall be considered a substantial failure of performance and a material breach of Contract and may result in Termination of the Contract pursuant to Article 14.
- b. Recovery Schedule Acceleration without Additional Cost. The District may require Contractor prepare a Recovery Schedule showing how the Project shall be accelerated, without any additional cost to the District. The District may order, without additional cost, the following:
 - i. Increase the number of shifts
 - ii. Utilize Overtime to recover the schedule
 - iii. Increase the days when work occurs, including weekends, at the Project and at any manufacturer's plant.
- c. Recovery Schedule Acceleration without Additional Cost.If Contractor Disputes that the Recovery Schedule Acceleration shall be issued without additional costs, the Contractor shall submit concurrent with Recovery Schedule Acceleration notice pursuant to Article 8.4.3 and 8.4.4.

8.4 EXTENSIONS OF TIME - LIQUIDATED DAMAGES

8.4.1 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 SUBSTANTIALLY COMPLETED IN THE TIME SET FORTH IN THE AGREEMENT, IT IS UNDERSTOOD THAT THE DISTRICT WILL SUFFER DAMAGES. IT BEING IMPRACTICAL AND UNFEASIBLE TO DETERMINE THE AMOUNT OF ACTUAL DAMAGE, IT IS AGREED THE CONTRACTOR SHALL PAY TO THE DISTRICT THE AMOUNT LIQUIDATED DAMAGES SET FORTH IN THE AGREEMENT, FOR EACH CALENDAR DAY OF DELAY IN REACHING SUBSTANTIAL COMPLETION (SEE ART 1.1.46). ANY LIQUIDATED DAMAGES RECOVERED BY THE DISTRICT SHALL NOT, HOWEVER, LIMIT THE DISTRICT'S RIGHT TO SEPARATELY RECOVER ANY ACTUAL OUT-OF-POCKET DAMAGES IT SUFFERS DUE TO CONTRACTOR'S DELAY. CONTRACTOR AND HIS SURETY SHALL BE LIABLE FOR THE AMOUNT THEREOF PURSUANT TO GOVERNMENT CODE SECTION 53069.85.

8.4.2 <u>Delay</u>

Except and only to the extent provided under Article 7 and Article 8, by signing the Agreement, Contractor agrees:

- a. To bear the risk of delays to completion of the Work; and
- b. That Contractor's bid for the Contract was made with full knowledge of this risk.

In agreeing to bear the risk of delays to complete the Work, Contractor understands that, except and only to the extent provided otherwise in Article 7 and 8, the occurrence of events that delay the Work shall not excuse Contractor from its obligation to achieve full completion of the Work within the Contract Time, and shall not entitle the Contractor to an adjustment to the Contract time.

8.4.3 Excusable Delay

Contractor shall not be charged for Liquidated Damages because of any delays in completion of Work which are not the fault or negligence of Contractor or its subcontractors, arising from Rain Float or Project Float, 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 such delay notify District in writing of causes of delay; thereupon District shall ascertain the facts and extent of delay and grant extension of time for completing Work when, in its judgment, the findings of fact justify such an extension. Extensions 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 after proper compliance with Article 8.3 requiring preparation and submission of a properly prepared CPM schedule.

- 8.4.3.1 Excusable Delay Is Not Compensable. No extended overhead, general conditions costs, impact costs, out-of-sequence costs or any other type of compensation, by any name or characterization, shall be paid to the Contractor for any delay to any activity not designated as a critical path item on the latest approved Project schedule.
- 8.4.3.2 *Notification.* The Contractor shall notify the Architect in writing of any anticipated delay and its cause, in order that the Architect may take immediate steps to prevent, if possible, the occurrence or continuance of delay, and 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.
- 8.4.3.3 Extension Request. 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 (See Article 7). When requesting time, i.e., extensions, for proposed Change Orders, they must be submitted with the proposed Change Order with full justification and documentation. If the Contractor fails to submit justification with the proposed Change Order it waives its right to a time extension at a later date. Such justification must be based on the official Contract schedule as updated at the time of occurrence of the delay or execution of Work related to any changes to the scope of Work. The justification must include, but is not limited to, the following information:
 - a. The duration of the activity relating to the changes in the Work and the resources (manpower, equipment, material, etc.) required to perform these activities within the stated duration.

b. Logical ties to the official Baseline Schedule or Approved Updated Schedule for the proposed changes and/or delay showing the activity/activities in the schedule whose start or completion dates are affected by the change and/or delay. (A fragment of any delay of over ten (10) days must be provided.)

The Contractor and District understand and expressly agree that insofar as Public Contract Code Section 7102 may apply to changes in the Work or delays under this Contract, the actual delays and damages, if any, and time extensions are intended to, and shall provide, the exclusive and full method of compensation for changes in the Work and construction delays.

8.4.4 Notice by Contractor Required

The Contractor shall within five (5) calendar days of beginning of any such delay notify the District in writing of causes of delay with justification and supporting documentation. In the case of a Recovery Schedule pursuant to Article 8.3.3.4, Contract shall submit Notice concurrent with the Recovery Schedule. District will then ascertain the facts and extent of the delay and grant an extension of time for completing the Work when, in its judgment, the findings of fact justify such an extension. Extensions of time shall apply only to that portion of the Work affected by the delay and shall not apply to other portions of the Work not so affected.

Claims relating to time extensions shall be made in accordance with applicable provisions of Article 7.

- 8.4.4.1 *Adjustment for Compensable Delays*. The Schedule may be adjusted for a delay if, and only if, Contractor undertakes the following:
 - a. Contractor submits a timely COR or CO pursuant to the requirements of Article 7.
 - b. Contractor submits a fragnet showing the critical path delay caused by the COR, CO, Changed Condition, CCD, or ICD
 - c. Contractor has addressed all Float days set forth in Article 8.4.1 in the Fragnet.
 - d. Contractor submits a complete breakdown of all costs incurred utilizing the format of Article 7.3.3

8.4.5 <u>No Additional Compensation for Coordinating Governmental Submittals and the</u> resulting Work

CONTRACTOR HAS PLANNED ITS WORK AHEAD OF TIME AND IS AWARE THAT GOVERNMENTAL AGENCIES, SUCH AS THE GAS COMPANIES, ELECTRICAL UTILITY COMPANIES, WATER DISTRICTS AND OTHER AGENCIES MAY HAVE TO APPROVE CONTRACTOR PREPARED DRAWINGS OR APPROVE A PROPOSED INSTALLATION. CONTRACTOR HAS INCLUDED DELAYS AND DAMAGES WHICH MAY BE CAUSED BY SUCH AGENCIES IN CONTRACTOR'S BID AND HAS INCLUDED ADEQUATE TIME IN THE CONTRACTORS BASELINE SCHEDULE. FAILURE TO ADEQUATELY PLAN AND SCHEDULE IS NOT A BASIS TO USE GOVERNMENTAL DELAY FLOAT.

8.4.6 <u>District Right to Accelerate the Work</u>

The District may direct the Contractor to meet schedule requirements when the Work has been delayed. The District shall compensate the Contractor for the additional costs incurred by acceleration to the extent that such costs are directly attributable to the acceleration and are incurred through no fault or negligence of the Contractor.

- 8.4.6.1 *Management of Acceleration*. Contractor acceleration shall not include Work that is part of the scope of Work detailed in the Plans and Specifications. Instead, the acceleration costs shall be premium or overtime and quantifiable additional work added to the Project meant to accelerate the Project. Contractor is directed to keep consistent crews on the Project so time can be tracked. If crews are circulated off the Project or crews brought in only for overtime, the District may be charged for Contract Work and not accelerated time. In such case, the District may object to the costs submitted.
- 8.4.6.2 *Costs for Acceleration*. Cost for Acceleration shall be supported by backup documentation, and time sheets signed by the Inspector for each day work has been performed, at or near the time when the Work was performed. A listing on the time sheet shall document all labor, materials and services utilized that day and provide areas of work, and amount of work performed. Contractor shall comply with submission requirements of Article 7.7.

ARTICLE 9 PAYMENTS AND COMPLETION

9.1 CONTRACT SUM

The Contract Sum 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.

9.2 COST BREAKDOWN

9.2.1 Required Information

Contractor shall furnish the following:

- a. Within ten (10) days of the award of the Contract, a detailed breakdown of the Contract Price (hereinafter "Schedule of Values") for each Project, Site, building, milestone or other meaningful method to measure the level of Project Completion as determined by the District shall be submitted as a Submittal for the Project.;
- e. Within ten (10) days of the award of the Contract, a schedule of estimated monthly payment requests due the Contractor showing the values and construction time of the various portions of the Work to be performed by it and by its Subcontractors or material and equipment suppliers containing such supporting evidence as to its correctness as the District may require;
- f. Within ten (10) days of the award of the Contract, the name, address, telephone number, telecopier 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.

9.2.2 Information and Preparation of Schedule of Values

- 9.2.2.1 *Break Down of Schedule of Values*. Schedule of Values shall be broken down by Project, site, building, milestone, or other meaningful method to measure the level of Project Completion as determined by the District.
- 9.2.2.2 Based on Contractor Bid Costs. The Schedule of Values shall be based on the costs from Contractor's bid to the District. However, the submission of the Schedule of Values shall not be front loaded so the Contractor is paid a greater value than the value of the Work actually performed and shall not shift funds from parts of the Project that are later to Work that is performed earlier.
- 9.2.2.3 <u>Largest Dollar Value for Each Line Item</u>. Identify subcontractors and materials suppliers proposed to provide portions of Work equal to or greater than ten thousand dollars (\$10,000) or one-half (1/2) of one percent (1%) of their Contract Price, whichever is less.
- 9.2.2.4 *Allowances*. Any Allowances provided for in the Contract shall be a line item in the Schedule of Values.
- 9.2.2.5 Labor and Materials Shall Be Separate. Labor and Materials shall be broken into two separate line items unless specifically agreed in writing by the District.

9.2.3 <u>District Approval Required</u>

The District shall review all submissions received pursuant to Paragraph 9.2 in a timely manner. All submissions must be approved by the District before becoming the basis of any payment.

9.3 PROGRESS PAYMENTS

9.3.1 Payments to Contractor

9.3.2 Unless there is a resolution indicating that the Work for the Project is sufficiently complex, within thirty (30) days after approval of the Request for Payment, Contractor shall be paid a sum equal to ninety-five percent (95%) of the value of the Work performed (as certified by Architect and Inspector and verified by Contractor) up to the last day of the previous month, less the aggregate of previous payments. In the case of a Project designated sufficiently complex, the sum paid to the Contractor shall be equal to ninety percent (90%) of the value of the Work performed (as certified by the Architect and Inspector and verified by Contractor) The value of the Work completed shall be the Contractor's best estimate. Work completed as estimated shall be an approximation or estimate only and no mistake, inaccuracy, error or falsification in said any approved estimate shall operate to release the Contractor, or any surety upon any bond, from damages arising from such Work, or from the District's enforcement of each and every provision of this Contract including but not limited to the Performance Bond and Payment Bond. The District shall have the right to subsequently to correct any mistake, inaccuracy, error or falsification made or otherwise set forth in any approved Request for Payment and such correction may occur in any future Payment Application or in the Retention Payment to the Contractor. No Surety upon any bond shall be relieved, released or exonerated of its obligations under this Contract or any applicable bond when the District is unable to correct an overpayment to the Contractor due to any abandonment by the Contractor or termination by the District.

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.

Notwithstanding anything to the contrary stated above, the Contractor may include in its Request for Payment the value of any structural steel, glue laminated beams, trusses, bleachers and other such custom-made materials prepared specifically for the Project and unique to the Project so long as all of the following requirements are satisfied:

- a. The aggregate cost of materials stored off-site shall not exceed Twenty Five Thousand Dollars (\$25,000) at any time or as otherwise agreed to be District in writing;
- b. Title to such materials shall be vested in the District as evidenced by documentation satisfactory in form and substance to the District, including, without limitation, recorded financing statements, UCC filings and UCC searches;
- c. With each Contractor Request for Payment, the Contractor shall submit to the District a written list identifying each location where materials are stored off-site (which must be a bonded warehouse) and the value of the materials at each location. The Contractor shall procure insurance satisfactory to the District (in its reasonable discretion) for materials stored off-site in an amount not less than the total value thereof;

- d. The consent of any Surety shall be obtained to the extent required prior to payment for any materials stored off-site;
- e. Representatives of the District shall have the right to make inspections of the storage areas at any time; and
- f. Such materials shall be (1) protected from diversion, destruction, theft and damage to the reasonable satisfaction of the District; (2) specifically marked for use on the Project; and (3) segregated from other materials at the storage facility.

9.3.3 Purchase of Materials and Equipment and Cost Fluctuations

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. Contractor understands that materials fluctuate in value and shall have adequately addressed market fluctuations through agreements with Contractor Vendors or by other means. Contractor further understands and incorporates into Contractor's bid cost any wage rate increases during the Project for the Contractor's labor force as well as all other subcontractor and vendor labor forces. District shall not be responsible for market fluctuations in costs or labor rate increases during the Project. Contractor further has incorporated any and all cost increases in areas of Work where there may be schedule variations so that cost increases are not passed through to the District.

9.3.4 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. Contractor specifically understands that Title 24 Section 4-343 that:

"It is the duty of the contractor to complete the work covered by his or her contract in accordance with the approved plans and specifications therefore. The contractor in no way is relieved of any responsibility by the activities of the Architect, Engineer, Inspector or DSA in the performance of such duties...In no case, however, shall the instruction of the Architect or registered Engineer be construed to cause work to be done with is not in conformity with the approved plans, specifications, and change orders... "

Notwithstanding any payment, the District may enforce each and every provision of this Contract which includes, but is not limited to, the Performance Bond and Payment Bond. The District may correct any error subsequent to any payment. In no event shall the Contractor or the Surety be released or exonerated from performance under this Contract when the District overpays the Contractor based upon any mistake, inaccuracy, error or falsification in any estimate that is included in any Request for Payment.

9.3.5 Issuance of Certificate of Payment

The Architect shall, within seven (7) days after receipt of the Contractor's Application for Payment, either approve such payment or notify the Contractor in writing of the Architect's reasons for withholding approval in whole or in part as provided in Paragraph 9.6. The review of the Contractor's Application for Payment by the Architect is based on 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 Architect's knowledge, information, and belief, the quality of the Work is in accordance with the Contract Documents. In some cases, the Architect may act upon or rely on the evaluation of the Work by the Inspector. This review of Payment Applications is sometimes called a "Pencil Draft." District's

return of a Pencil Draft shall constitute the District's dispute of the Pay Application that has been submitted. Contractor shall promptly respond to Pencil Drafts or Contractor's Pay Applications may be delayed. Contractor's failure to promptly respond to a Pencil Draft shall qualify as a delay in the Prompt Payment of a Request for Payment or Request for Retention. The foregoing representations are subject to (1) an evaluation of the Work for conformance with the Contract Documents, (2) results of subsequent tests and inspections, (3) minor deviations from the Contract Documents correctable prior to completion, and (4) specific qualifications expressed by the Architect. The issuance of a Certificate for Payment will further constitute the Contractor's Verified representation that the Contractor is entitled to payment in the amount certified.

9.3.6 Payment of Undisputed Contract Payments

In accordance with Public Contract Code section 7100, payments by the District to the Contractor for any and all undisputed amounts (including all Progress Payments, Final Payments or Retention Payment) is contingent upon submission of a proper and accurate Pay Application and the Contractor furnishing the District with a release of all Claims against the District related to such undisputed amounts. Disputed Contract claims in stated amounts may be specifically excluded by the Contractor from the operation of the release. If, however, the Contractor specifically excludes any Claims, the Contractor shall provide details such as a specific number of disputed days or costs of any such exclusion in accordance with Articles 4.6 and 7.7.

9.4 APPLICATIONS FOR PROGRESS PAYMENTS

9.4.1 Procedure

- 9.4.1.1 Application for Progress. On or before the fifth (5th) day of each calendar month during the progress of the Work, Contractor shall submit to the Architect an itemized Application for Progress Payment for operations completed. Such application shall be notarized, if required, and supported by the following or such portion thereof as Architect requires:
 - 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;
 - 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;
 - 3. The balance that will be due to each of such entities after said payment is made;
 - 4. A certification that the As-Built Drawings and Annotated Specifications are current;
 - 5. Itemized breakdown of Work done for the purpose of requesting partial payment;
 - 6. An updated construction schedule in conformance with Paragraph 8;
 - 7. Failure to submit a schedule update for the month or any previous month

- 8. The additions to and subtractions from the Contract Price and Contract Time:
- 9. A summary of the Retention held;
- 10. Material invoices, evidence of equipment purchases, rentals, and other support and details of cost as the District may require from time to time;
- 11. The percentage of completion of the Contractor's Work by line item; and
- 12. An updated Schedule of Values from the preceding Application for Payment.
- 13. Prerequisites for Progress Payments
- 9.4.1.2 *First Payment Request.* The following items, if applicable, must be completed before the first payment request will be accepted for processing:
 - 1. Installation of the Project sign;
 - 2. Receipt by Architect of Submittals;
 - 3. Installation of field office:
 - 4. Installation of temporary facilities and fencing;
 - 5. Submission of documents listed in the Paragraph 9.2 relating to Cost Breakdown;
 - 6. Preliminary schedule analysis, due within 10 days after Notice to Proceed;
 - 7. Contractor's Construction Schedule (Progress Schedule to be CPM based in conformance with Article 8);
 - 8. Schedule of unit prices, if applicable;
 - 9. Submittal Schedule:
 - 10. Copies of necessary permits;
 - 11. Copies of authorizations and licenses from governing authorities;
 - 12. Initial progress report;
 - 13. Surveyor qualifications;
 - 14. Written acceptance of District's survey of rough grading, if applicable;
 - 15. List of all subcontractors, with names, license numbers, telephone numbers, and scope of work;

- 16. All bonds and insurance endorsements or other required OCIP documents; and
- 17. Resumes of General Contractor's Project Manager, and if applicable, job site Secretary, Record Documents Recorder, and job site Superintendent.
- 9.4.1.3 *Second Payment Request.* The second payment request will not be processed until all Submittals and Shop Drawings have been accepted for review by the Architect.
- 9.4.1.4 *All Payment Requests.* No payment requests will be processed unless Contractor has submitted copies of the Certified Payroll records for the Work which correlates to the payment request and a proper CPM schedule pursuant to Article 8 is submitted. Contractor must also submit all required OCIP information and documents as set forth in the OCIP Manual and Information
 - 9.4.1.5 Final Pay Application (90%). See Article 9.11.1
 - 9.4.1.6 Final Pay Application (95%). See Article 9.11.3

9.5 STOP NOTICE CLAIMS AND WARRANTY OF TITLE

The Contractor warrants title to all Work. The Contractor further warrants that all Work is free and clear of liens, claims, security interests, stop notices, or encumbrances in favor of the Contractor, Subcontractors, material and equipment suppliers, or other persons or entities making a claim by reason of having provided labor, materials, and equipment relating to the Work. Failure to keep work free of liens, stop notices, claims, security interests or encumbrances is grounds to make a claim against Contractor's payment and performance bond to immediately remedy and defend.

If a lien or stop notice of any nature should at any time be filed against the Work or any District property, by any entity which 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 stop notice to be released or discharged immediately therefrom.

If the Contractor fails to furnish to the District within ten (10) calendar days after written demand by the District, satisfactory evidence that a lien or stop notice has been so released, discharged, or secured, then 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. In addition, any liens, stop notices, claims, security interests or encumbrances shall trigger the indemnification requirements under Article 3.15 and shall act as a trigger under Civil Code Section 2778 and 2779 requiring reimbursement for any and all costs following the District's written demand has been made.

9.6 DECISIONS TO WITHHOLD PAYMENT

9.6.1 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 by Paragraph 9.4 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:

- a. Defective Work not remedied;
- b. Stop Notices served upon the District;
- c. Liquidated damages assessed against the Contractor;
- d. The cost of completion of the Contract if there exists reasonable doubt that the Work can be completed for the unpaid balance of any Contract Price or by the completion date;
- e. Damage to the District or other contractor;
- f. Unsatisfactory prosecution of the Work by the Contractor;
- g. Failure to store and properly secure materials;
- h. Failure of the Contractor to submit on a timely basis, proper and sufficient documentation required by the Contract Documents, including, without limitation, acceptable monthly progress schedules, Shop Drawings, Submittal schedules, schedule of values, product data and samples, proposed product lists, executed Change Order, Construction Change Directives, and verified reports;
- i. Failure of the Contractor to maintain record drawings;
- j. Erroneous estimates by the Contractor of the value of the Work performed, or other false statements in an Application for Payment;
- k. Unauthorized deviations from the Contract Documents (including but not limited to Unresolved Notices of Deviations (DSA Form 154));
- 1. Failure of the Contractor to prosecute the Work in a timely manner in compliance with established progress schedules and completion dates.
- m. Failure to properly pay prevailing wages as defined in Labor Code section 1720, et seq.;
- n. Failure to properly maintain or clean up the Site;
- o. Payments to indemnify, defend, or hold harmless the District;
- p. Any payments due to the District including but not limited to payments for failed tests, or utilities changes or permits;
- q. Failure to submit an acceptable schedule in accordance with Paragraph 3.8; or
- r. Failure to pay Subcontractor or suppliers as required by Paragraph 9.8.1
- s. Failure to secure warranties, including the cost to pay for warranties
- t. Failure to provide release from material suppliers or subcontractors when requested to do so

- u. Items deducted pursuant to Article 2.2
- v. Incomplete Punch List items under Article 9.9.1.2 which have gone through the Article 2.2 process.
- w. Allowances that have not been used

9.6.2 Reallocation of Withheld Amounts

District may, in its discretion, apply any withheld amount to payment of outstanding claims or obligations as defined in Paragraphs 9.6.1 and 9.5. In so doing, District shall make such payments on behalf of Contractor. If any payment is so made by District, then such amount shall be considered as a payment made under Contract by District to Contractor and District shall not be liable to Contractor for such payments made in good faith. Such payments may be made without prior judicial determination of claim or obligation. District will render Contractor an accounting of such funds disbursed on behalf of Contractor.

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 ten (10) calendar days 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 which is damaged, defective, or not done in accordance with Contract provisions, an equitable reduction in the Contract price (of at least 150% of the estimated reasonable value of the nonconforming Work) shall be made therefor.

9.6.3 Payment After Cure

When the grounds for declining approval are removed, 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.

9.7 NONCONFORMING WORK

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

If Contractor does not remove such Work which has been identified by District as failing to conform to the Contract Documents within a reasonable time, fixed by written notice, District may remove it and may store the material at Contractor's expense. If Contractor does not pay expenses of such removal within ten (10) calendar days' time thereafter, District may, upon ten (10) calendar days' written notice, sell such materials at auction or at private sale and shall account for net proceeds thereof, after deducting all costs and expenses that should have been borne by Contractor.

9.8 SUBCONTRACTOR PAYMENTS

9.8.1 Payments to Subcontractors

No later than ten (10) days after receipt, or pursuant to Business and Professions Code Section 7108.5, 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 Sub-subcontractors in a similar manner.

9.8.2 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.

9.8.3 Payment Not Constituting Approval or Acceptance

An approved Request for Payment, a progress payment, a Certificate of Substantial Completion, or partial or entire use or occupancy of the Project by the District shall not constitute acceptance of Work that is not in accordance with the Contract Documents.

9.8.4 Joint Checks

District shall have the right, if necessary for the protection of the District, to issue joint checks made payable to the Contractor and Subcontractors and material or equipment suppliers. The joint check payees shall be responsible for the allocation and disbursement of funds included as part of any such joint payment. In no event shall any joint check payment be construed to create any contract between the District and a Subcontractor of any tier, any obligation from the District to such Subcontractor, or rights in such Subcontractor against the District. The District may choose to issue joint checks at District's sole discretion and only after all the requirements of that particular school district and county are specifically met. Some school districts cannot issue joint checks, so the ability to issue joint checks depend on the District and the specific circumstances.

9.9 COMPLETION OF THE WORK

9.9.1 Close-Out Procedures

9.9.1.1 *Incomplete Punch Items*. When the Contractor considers the Work Substantially Complete (See Article 1.1.46 for definition of Substantially Complete), the Contractor shall prepare and submit to the District a comprehensive list of minor items to be completed or corrected (hereinafter "Incomplete Punch Items"). The Contractor and/or its Subcontractors shall proceed promptly to complete and correct the Incomplete Punch Items listed. Failure to include an item on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents. Contractor is aware that Title 24 Section 4-343(a) provides:

"RESPONSIBILITIES. IT IS THE DUTY OF THE CONTRACTOR TO COMPLETE THE WORK COVERED BY HIS OR HER CONTRACT IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS THEREFOR. THE CONTRACTOR IN NO WAY IS RELIEVED OF ANY RESPONSIBILITY BY THE ACTIVITIES OF THE ARCHITECT, ENGINEER, INSPECTOR OR DSA IN THE PERFORMANCE OF SUCH DUTIES...

9.9.1.2 Punch List Is Prepared Only After the Project Is Substantially Complete. If any of the conditions noted in Article 1.1.46 as defining Substantial Completion are not met, the Inspector, Architect or District may reject Contractor's Incomplete Punch Items as premature. If the Architect and Inspector commence review of Incomplete Punch Items, all rights are reserved until the Project actually

meets the definition of Substantially Complete. Liquidated Damages, warranties, and other contractual rights are not affected by Incomplete Punch Items unless otherwise addressed in these General Conditions.

Once the Inspector and the Architect determine the Project is Substantially Complete, a Certificate of Substantial Completion shall be issued. The Inspector and Architect shall prepare a Punch List of items which is an inspection report of the Work, if any, required in order to complete the Contract Documents and ensure compliance with the DSA Approved Plans so the Project may be Completed by the Contractor and a final DSA Close-Out is approved. When all Work for the Project is Complete, including Punch Lists and all Work complies with the approved Contract Documents and Change Orders, the Project has reached Final Completion.

9.9.1.3 Time for Completion of Punch List. Contractor shall only be given a period of no more than thirty (30) days to complete the Punch List on Project. During the Punch List period Contractor Superintendent and Project Manager shall remain engaged in the Project and shall not be removed or replaced. If the Punch List is not completed at the end of the Punch List time then Contractor shall issue a valued Punch List within 5 days after the date the Punch List time ends. If Contractor does not issue such a list, the Owner or Architect may issue a valued Punch List to the Contractor and withhold up to 150% of the value of the Punch List Work pursuant to Article 2.2 of this Agreement.

Failure to issue a timely written request for additional time to complete Punch List shall result in the deletion of the remaining Punch List Work pursuant to Article 2.2 and the issuance of a Deductive Change Order.

- a. Extension of Time to Complete Punch List. If Contractor cannot finish the Punch List Work during the time period allotted under Article 9.9.1.3, the Contractor may make a written request for a Non-Compensable Punch List time extension accompanied by an estimate of the number of additional days it will take to complete the Punch List Work for a written consent from the District to allow continued Punch List Work. Punch List time extensions are a maximum of thirty (30) days for each request and must be accompanied by an Itemized Valued Punch List.
- b. If there is no valued Punch List accompanying any request or if Contractor intends to undertake Punch List without the continued support and supervision of its Superintendent and Project Manager (as required under Article 3.2), the District, Construction Manager or Architect may issue a valued Punch List, reject the Punch List Time Extension and deduct 150% of the valued Punch List pursuant to Article 2.2 and proceed to Close-Out the Project. Contractor shall cease work on the Project and proceed to complete Contractor's Retention Payment Application and complete the Work for the Project required pursuant to Article 9.11.3.
- 9.9.1.4 District Rejection of Written Request for Punch List Time Extensions. Following sixty (60) Days of Punch List under Article 9.9.1.3, the District has the option of rejecting Punch List Time Extension requests. The District may proceed under Article 2.2 and deduct the value of remaining Punch List Work pursuant to Article 2.2. If the District rejects the Punch List Time Extension request then Contractor shall cease Work on the Project and proceed to Final Inspection pursuant to Article 9.11.2.
- 9.9.1.5 Punch List Liquidated Damages to Compensate for Added District Project Costs. If the total time utilized for Punch List exceeds sixty (60) days [the thirty (30) day period under

Article 9.9.1.3 plus an additional thirty (30) day period that has been requested in writing], and the District grants an additional written Punch List Time Extension that exceeds sixty (60) days of Punch List, then Contactor shall be charged liquidated damages of at least \$750 per day for continued Punch List Work to compensate for an Inspector, Architect, and Construction Manager extended time on the Project. This Punch List Liquidated Damage number is based on anticipated cost for an Inspector on site and additional costs for the Architect and Construction Manager to reinspect Punch List items and perform the administration of the Close-out.

Contractor received thirty (30) days without any charges for Punch List Liquidated Damages and is placed on notice pursuant to this Article 9.9.1.5 that \$750 is due for each day of Punch List that exceeds sixty (60) days at \$750, a cost much lower than typical (and actual) costs for Inspection, Architect and Construction Manager time required during Punch List. Starting at ninety (90) days of Punch List (an excessive number of days to complete Punch List), the District shall be entitled to adjust Punch List Liquidated Damages to an estimate of the actual costs incurred to oversee, monitor and inspect the Punch List. If costs exceed \$750 per day, the anticipated extended contract charges for Inspection, Architect, Construction Manager, and any other costs that will be incurred due to the extended Punch List shall be itemized and a daily rate of Punch List Liquidated Damages shall be presented in writing to the Contractor within five (5) days following the receipt of a written request for Punch List time extension by the Contractor that extends the Punch List time beyond ninety (90) days. This written notice of actual Punch List Liquidated Damages may be provided to the Contractor at any time following the first written request for Punch List Time extension requested under Article 9.9.1.3. The Adjusted Actual Punch List Liquidated Damage amount shall be applicable as Punch List Liquidated Damages commencing on the ninetieth (90th) day of Punch List.

9.9.2 Close-Out Requirements for Final Completion of the Project

- a. <u>Utility Connections</u>. 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
- b. <u>As-Builts Up to Date and Complete</u>. The intent of this procedure is to obtain an exact "As-Built" record of the Work upon completion of the project. The following information shall be carefully and correctly drawn on the prints and all items shall be accurately located and dimensioned from finished surfaces of building walls on all record drawings
 - 1. The exact location and elevations of all covered utilities, including valves, cleanouts, etc must be shown on As-Builts
 - 2. Contractor is liable and responsible for inaccuracies in As-Built drawings, even though they become evident at some future date.
 - 3. Upon completion of the Work and as a condition precedent to approval of Retention Payment, Contractor shall obtain the Inspector's approval of the "As-Built" information. When completed, Contractor shall deliver corrected sepias and/or a Diskette with an electronic file in a format acceptable to the District.
 - 4. District may withhold the cost to hire a draftsman and potholing and testing service to complete Record As-Built Drawings at substantial cost if the Contractor does not deliver a complete set of Record As-Built

Drawings. This shall result in withholding of between \$10,000 to \$20,000 per building that does not have a corresponding Record As Built Drawing.

- c. Any Work not installed as originally indicated on drawings
- d. <u>All DSA Close-Out requirements</u> (See DSA Certification Guide) Contractor is also specifically directed to Item 3.2 in the DSA Certification Guide and the applicable certificates for the DSA-311 form.
- e. <u>Submission of Form 6-C.</u> Contractor shall be required to execute a Form 6-C as required under Title 24 Sections 4-343. The Contractor understands that the filing with DSA of a Form 6-C is a requirement to obtain final DSA Approval of the Construction by Contractor and utilized to verify under penalty of perjury that the Work performed by Contractor complies with the DSA approved Contract Documents. The failure to file a DSA Form 6C has two consequences. First, the Construction of the Project will not comply with the Design Immunity Provisions of Government Code Section 830.6 and exposes the District and the individual Board members to Personal Liability for injuries that occur on the Project.

Secondly, under DSA IR A-20, since the Project cannot be Certified by DSA, no future or further Projects will be authorized so Contractor will have essentially condemned the campus from any future modernization or addition of new classrooms through their failure to file the DSA Form 6C.

- 1. Execution of the DSA Form 6-C is mandatory. Refusal to Execute the Form 6-C, which is a Final DSA Verified Report that all Work performed complies with the DSA approved Contract Documents is a violation of Education Code Section 17312 and shall be referred to the Attorney General for Prosecution.
- 2. Referral to the District Attorney for Extortion. If the Contractor's refusal to execute the DSA Form 6C is to leverage a Dispute, Claim or Litigation, then the matter shall also be referred to the District Attorney for prosecution for Extortion.
- 3. Contractor shall be Responsible for All Costs to Certify the Project. The District may Certify the Project complies with Approved Plans and Specifications by utilizing the procedures under the Project Certification Guide (Located at the **DSA** website http://www.documents.dgs.ca.gov/dsa/plan_review_process/project_certi fication guide updated 03-15-13.pdf). All costs for professionals, inspection, and testing required for an alternate Project Certification shall be the Contractor's responsibility and the District reserves its right to institute legal action against the Contractor and Contractor's Surety for all costs to Certify the Project and all costs to correct Non-Compliant Work that is discovered during the Alternate Certification Process.
- f. ADA Work that must be corrected to receive DSA certification. See Article 12.2.
- g. <u>Maintenance Manuals</u>. At least thirty (30) days prior to final inspection, three (3) copies of complete operations and maintenance manuals, repair parts lists, service

instructions for all electrical and mechanical equipment, and equipment warranties shall be submitted. All installation, operating, and maintenance information and drawings shall be bound in 8½" x 11" binders. Provide a table of contents in front and all items shall be indexed with tabs. Each manual shall also contain a list of subcontractors, with their addresses and the names of persons to contact in cases of emergency. Identifying labels shall provide names of manufactures, their addresses, ratings, and capacities of equipment and machinery.

- 1. Maintenance manuals shall also be delivered in electronic media for the Project. Any demonstration videos shall also be provided on electronic media.
- h. <u>Inspection Requirements</u>. Before calling for final inspection, Contractor shall determine that the following Work has been performed:
 - 1. The Work has been completed.
 - 2. All life safety items are completed and in working order.
 - 3. Mechanical and electrical Work complete, fixtures in place, connected and tested.
 - 4. Electrical circuits scheduled in panels and disconnect switches labeled.
 - 5. Painting and special finishes complete.
 - 6. Doors complete with hardware, cleaned of protective film relieved of sticking or binding and in working order.
 - 7. Tops and bottoms of doors sealed.
 - 8. Floors waxed and polished as specified.
 - 9. Broken glass replaced and glass cleaned.
 - 10. Grounds cleared of Contractor's equipment, raked clean of debris, and trash removed from Site.
 - 11. Work cleaned, free of stains, scratches, and other foreign matter, replacement of damaged and broken material.
 - 12. Finished and decorative work shall have marks, dirt and superfluous labels removed.
 - 13. Final cleanup, as in Paragraph 3.12.
 - 14. All Work pursuant to Article 9.11
 - 15. Furnish a letter to District stating that a responsible representative of District [give name and position] has been instructed in working characteristics of mechanical and electrical equipment.

9.9.3 <u>Costs of Multiple Inspections</u>

More than two (2) requests of the District to make inspections required under Paragraph 9.9.1 shall be considered an additional service of Architect, Inspector, Engineer or other consultants shall be the Contractor's responsibility pursuant to Article 4.5 and all subsequent costs will be prepared as a Deductive Change Order.

9.10 PARTIAL OCCUPANCY OR USE

9.10.1 District's Rights

The District may occupy or use any completed or partially completed portion of the Work at any stage. The District and the Contractor shall agree in writing to the responsibilities assigned to each of them for payments, security, maintenance, heat, utilities, damage to the Work, insurance, the period for correction of the Work, and the commencement of warranties required by the Contract Documents. If District and Contractor cannot agree as to responsibilities such disagreement shall be resolved pursuant to Paragraph 4.6. When the Contractor considers a portion complete, the Contractor shall prepare and submit a Punch List to the District as provided under Paragraph 9.9.1.

9.10.2 Inspection Prior to Occupancy or Use

Immediately prior to such 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.

9.10.3 No Waiver

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

9.11 COMPLETION AND FINAL PAYMENT

9.11.1 <u>Final Payment (90% Billing if Substantially Complex Finding and 95% Billing If No</u> Resolution Is Provided)

The following items must be completed before the Final Pay Application will be accepted for processing at Substantial Completion of the Project:

- a. Inspector Sign off of each item in the DSA 152 Project Inspection Card;
- b. The Project has reached the Punch List items under Article 9.9.1.2 and the Project has been determined to be Substantially Complete under Article 1.1.28;
- c. Removal of temporary facilities and services;
- d. Testing, adjusting and balance records are complete;
- e. Removal of surplus materials, rubbish, and similar elements;
- f. Change Over of Door locks;
- g. Deductive items pursuant to Article 9.6 and Article 2.2; and,

h. Completion and submission of all final Change Orders for the Project.;

9.11.2 Final Inspection (Punch List Completion)

Contractor shall comply with Punch List procedures under Article 9.9.1.1, and maintain the presence of Project Superintendent and Project Manager (not replacement project superintendent or project manager) until the Punch List is complete to ensure proper and timely completion of the Punch List. Under no circumstances shall Contractor demobilize its forces prior to completion of the Punch List.

Upon completion of the Work under Article 9.9.1, the Contractor shall notify the District and Architect, who shall again inspect such Work. If the Architect and the District finds the Work contained in Punch List acceptable under the Contract Documents and, therefore, the Work shall have reached Final Completion. Architect shall notify Contractor, who shall then submit to the Architect its Application for Retention Payment. This Application for Retention Payment shall contain any deductions under Article 9.6, including but not limited to incomplete Punch List items under Article 9.9.1.

Upon receipt and approval of Application for Retention Payment, the Architect shall issue a Form 6 stating that to the best of its knowledge, information, and belief, and on the basis of its observations, inspections, and all other data accumulated or received by the Architect in connection with the Work, such Work has been completed in accordance with the Contract Documents. The District shall thereupon inspect such 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 (which, 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 payment from the District, pay the amounts due Subcontractors.

If the Architect and the District find that the Work Contained in the Punch List is unacceptable, then Contractor shall issue a valued Punch List within 5 days after the date the Punch List time ends. If Contractor does not issue such a list, the Owner or Architect may issue a valued Punch List to the Contractor and withhold up to 150% of the value of the Punch List Work pursuant to Article 2.2 of this Agreement.

9.11.3 Retainage (100% Billing for the Entire Project)

The retainage, less any amounts disputed by the District or which the District has the right to withhold Pursuant to Paragraph 9.6 (including but not limited to incomplete Punch List items under Article 9.9.1), shall be paid after approval by the District of the Application for Retention Payment, after the satisfaction of the conditions set forth in Article 9, the Final Inspection under Article 9.11.2 is completed, and after thirty-five (35) days after the acceptance of the Work and recording of the Notice of Completion by District. No interest shall be paid on any retainage, 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.

- a. <u>Procedures for Application for Retention Payment.</u> The following conditions must be fulfilled prior to release of Retention Payment:
 - i. A full and final waiver or release of all Stop Notices in connection with the Work shall be submitted by Contractor, including a release of Stop Notice in recordable form, together with (to the

extent permitted by law) a copy of the full and final release of all Stop Notice rights.

- ii. The Contractor shall have made all corrections, including all Punch List Items, to the Work which 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.
- iii. Each Subcontractor shall have delivered to the Contractor all written guarantees, warranties, applications, releases from the Surety and warranty bonds (if applicable) required by the Contract Documents for its portion of the Work.
- iv. Contractor must have completed all requirements set forth in Article 9.9
- v. Contractor must have issued a Form 6C for the Project.
- vi. The Contractor shall have delivered to the District all manuals and materials required by the Contract Documents.
- vii. The Contractor shall have completed final clean up as required by Paragraph 3.12
- viii. Contractor shall have all deductive items under Article 9.6 and Article 2.2 submitted as part of the Retention Payment.

9.11.4 Recording of a Notice of Completion After Punch List Period and Final Inspection.

When the Work, or designated portion thereof, is complete or the District has completed the Article 9.6 and/or the Article 2.2 process, whichever occurs first, the District will file either a Notice of Completion or a Notice of Completion noting Valued Punch List items. Valued Punch List items will be deducted from the Retention Payment.

During the time when Work is being performed on the Punch List, the Project does not meet the definition of "Complete" under Public Contract Code Section 7107(c)(1) even if there is "beneficial occupancy" of the Project since that has been no "cessation of labor" on the Project. Completion of Punch List under this Article is not "testing, startup, or commissioning by the public entity or its agent." In other words, the continuing Punch List Work is Contractor labor on the Project until each and every item of Punch List Work is complete or the time periods under Article 9.9.1 have expired.

9.11.5 Warranties

Warranties required by the Contract Documents shall commence on the date of Completion of the entire Work. Warranty periods DO NOT commence at Substantial Completion or when a particular subcontractor work is complete. No additional charges, extras, Change Orders, or Claims may be sought for warranties commencing from the Notice of Completion.

District shall have the right to utilize equipment, test, and operate as necessary for acclimation, or testing without voiding or starting warranties. Taking beneficial occupancy shall not start warranties except in the case where the District agrees, in writing, that warranties shall commence running or where the District is taking phased occupancy of specific buildings or areas and completes separate Punch Lists as further addressed in Article 4.2.7.

9.11.6 <u>Time for Submission of Application for Final Payment and Retention Payment</u> (Unilateral Processing of Final and Retention Pay Application).

If Contractor submits a Final Pay Application which fails to include deductive items under Article 9.6, the District or Architect shall note this defective request for Final Pay Application. The Contractor shall be notified that specific deductive items shall be included in the Final Pay Application. If Contractor either continues to submit the Final Pay Application without deductive items under Article 9.6, or a period of 14 calendar days passes after Contractor is provided written notice of deductive items for inclusion in Final Pay Application, then District may either alter the Final Pay Application and recalculate the math on the Final Pay Application to address the Article 9.6 deductive items or process a Unilateral Final Pay Application.

9.11.7 <u>Unilateral Release of Retention</u>

After the recordation of the Notice of Completion, or within sixty (60) days following the completion of the Punch List or the expiration of the time for completion of Punch List under Article 9.9.1, if Contractor does not make an Application for Release of Retention, the District may unilaterally release retention less any deducts under Article 9.6 and/or Article 2.2, withholds due to stop notice, or other defective work on the Project. District may also choose to unilaterally release Retention after deduction of 150% of any disputed items, which may also include items under Article 9.6 and 2.2. If a deduction pursuant to Article 9.6 is made from Retention, a letter deducting specific valued items shall be considered a notice of Default under the terms of the Escrow Agreement.

9.12 SUBSTITUTION OF SECURITIES

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

ARTICLE 10 PROTECTION OF PERSONS AND PROPERTY

10.1 SAFETY PRECAUTIONS AND PROGRAMS

10.1.1 Contractor Responsibility

The 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 protection of all materials delivered and Work performed until completion and final acceptance by the District. All Work shall be solely at the Contractor's risk, with the exception of damage to the Work caused by "acts of God" as defined in Public Contract Code Section 7105(b)(2).

Contractor shall take, and require subcontractor to take, all necessary precautions for safety of workers on the Work 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. In addition to meeting all requirements of OSHA, Cal-OSHA, state, and local codes, Contractor shall furnish, erect and properly maintain at all times, as directed by District or Architect or required by conditions and progress of Work, all necessary safety devices, safeguards, construction canopies, signs, audible devices for protection of the blind, safety rails, belts and 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. Contractor shall designate a responsible member of its organization on the Work, 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. The name and position of person so designated shall be reported to District by Contractor. 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, such violation shall be corrected promptly.

10.1.2 <u>Subcontractor Responsibility</u>

Contractor shall require that Subcontractors participate in, and enforce, the safety and loss prevention programs established by the Contractor for the Project, which will cover all Work performed by the Contractor and its Subcontractors. Each Subcontractor shall designate a responsible member of its organization whose duties shall include loss and accident prevention, and who shall have the responsibility and full authority to enforce the program. This person shall attend meetings with the representatives of the various Subcontractors employed to ensure that all employees understand and comply with the programs.

10.1.3 Cooperation

All Subcontractors and material or equipment suppliers shall cooperate fully with Contractor, the District, and all insurance carriers and loss prevention engineers.

10.1.4 <u>Accident Reports</u>

Subcontractors shall immediately, within two (2) days, report in writing to the Contractor all accidents whatsoever arising out of, or in connection with, the performance of the Work, whether on or

off the Site, which caused death, personal injury, or property damage, giving full details and statements of witnesses. In addition, if death or serious injuries or serious damages are caused, the accident shall be reported within four (4) days by telephone or messenger. Contractor shall thereafter immediately, within two (2) days, report the facts in writing to the District and the Architect giving full details of the accident.

10.1.5 First-Aid Supplies at Site

The Contractor will provide and maintain at the Site first-aid supplies which complies with the current Occupational Safety and Health Regulations.

10.1.6 Material Safety Data Sheets and Compliance with Proposition 65

Contractor is required to have material safety data sheets available in a readily accessible place at the job 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 properly label any substance brought into the job site, and require 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.

Contractor is required to comply with the provisions of California Health and Safety Code section 25249, et seq., which requires the posting and giving of notice to persons who may be exposed to any chemical known to the State of California to cause cancer. The Contractor agrees to familiarize itself with the provisions of this section, and to comply fully with its requirements.

10.1.7 Non-Utilization of Asbestos Material

NO ASBESTOS OR ASBESTOS-CONTAINING PRODUCTS SHALL BE USED IN THIS CONSTRUCTION OR IN ANY TOOLS, DEVICES, CLOTHING, OR EQUIPMENT USED TO EFFECT THIS CONSTRUCTION.

Asbestos and/or asbestos-containing products shall be defined as all items containing, but not limited to, chrysotile, amosite, anthophyllite, tremolite, and antinolite.

Any or all material containing greater than one-tenth of one percent (>.1%) asbestos shall be defined as asbestos-containing material.

All Work or materials found to contain asbestos or Work or material installed with asbestos-containing equipment will be immediately rejected and this Work will be removed at no additional cost to the District.

Decontamination and removal of Work found to contain asbestos or Work installed with asbestos-containing equipment shall be done only under supervision of a qualified consultant, knowledgeable in the field of asbestos abatement and accredited by the Environmental Protection Agency.

The asbestos removal contractor shall be an EPA accredited contractor qualified in the removal of asbestos and shall be chosen and approved by the asbestos consultant, who shall have sole discretion and final determination in this matter.

The asbestos consultant shall be chosen and approved by the District, who shall have sole discretion and final determination in this matter.

The Work will not be accepted until asbestos contamination is reduced to levels deemed acceptable by the asbestos consultant.

Interface of Work under this Contract with Work containing asbestos shall be executed by the Contractor at his risk and at his discretion, with full knowledge of the currently accepted standards, hazards, risks, and liabilities associated with asbestos work and asbestos-containing products. By execution of this Contract, the Contractor acknowledges the above and agrees to hold harmless District and its assigns for all asbestos liability which may be associated with this work and agrees to instruct his employees with respect to the above-mentioned standards, hazards, risks, and liabilities.

10.2 SAFETY OF PERSONS AND PROPERTY

10.2.1 The Contractor

The Contractor shall take reasonable precautions for the safety of, and shall provide reasonable protection to prevent damage, injury, or loss to:

- a. Employees on the Work and other persons who may be affected thereby;
- b. The Work, material, and equipment to be incorporated therein, whether in storage on or off the Site, under the care, custody, or control of the Contractor or the Contractor's Subcontractors or Sub-subcontractors; and
- c. Other property at the Site or adjacent thereto such as trees, shrubs, lawns, walks, pavement, roadways, structures, and utilities not designated for removal, relocation, or replacement in the course of construction.

Contractor is constructive owner of Project site as more fully discussed in Paragraph 6.2.

10.2.2 <u>Contractor Notices</u>

The Contractor shall give notices and comply with applicable laws, ordinances, rules, regulations, and lawful orders of public authorities bearing on the safety of persons or property or their protection from damage, injury, or loss.

10.2.3 Safety Barriers and Safeguards

The Contractor shall erect and maintain, as required by existing conditions and performance of the Contract, reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards, promulgating safety regulations, and notifying owners and users of adjacent sites and utilities.

10.2.4 Use or Storage of Hazardous Material

When use or storage of explosives, other hazardous materials or equipment, or unusual methods are necessary for execution of the Work, the Contractor shall exercise utmost care and carry on such activities under supervision of properly qualified personnel. The Contractor shall notify the District any time that explosives or hazardous materials are expected to be stored on Site. Location of storage shall be coordinated with the District and local fire authorities.

10.2.5 Protection of Work

The Contractor and Subcontractors shall continuously protect the Work, the District's property, and the property of others, from damage, injury, or loss arising in connection with operations under the Contract Documents. The Contractor and Subcontractors, at their own expense, shall make good any such damage, injury, or loss, except such as may be solely due to, or caused by, agents or employees of the District.

The Contractor, at Contractor's expense, will remove all mud, water, or other elements as may be required for the proper protection and prosecution of its Work.

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. All permits, licenses, or inspection fees required for such repair Work shall be obtained and paid for by Contractor.

10.2.6 Requirements for Existing Sites

Contractor shall (unless waived by the District in writing):

- a. When performing construction on existing sites, become informed and take into specific account the maturity of the students on the Site; and perform Work which may interfere with school routine before or after school hours, enclose working area with a substantial barricade, and arrange Work to cause a minimum amount of inconvenience and danger to students and faculty in their regular school activities. The Contractor shall comply with specifications and directives of the District regarding the timing of certain construction activities in order to avoid unnecessary interference with school functioning.
- b. Avoid performing any Work that will disturb students during testing.
- c. Provide substantial barricades around any shrubs or trees indicated to be preserved.
- d. Deliver materials to building area over route designated by Architect.
- e. Take preventive measures to eliminate objectionable dust, noise, or other disturbances.
- f. Confine apparatus, the storage of materials, and the operations of workers to limits indicated by law, ordinances, permits or directions of Architect; and not interfere with the Work or unreasonably encumber premises or overload any structure with materials; and enforce all instructions of District and Architect regarding signs, advertising, fires, and smoking and require that all workers comply with all regulations while on the Project site.
- g. Take care to prevent disturbing or covering any survey markers, monuments, or other devices marking property boundaries or corners. If such markers are disturbed by accident, they shall be replaced by an approved land surveyor or civil engineer and all maps and records required therefrom shall be filed with county

and local authorities, at no cost to the District. All filing and plan check fees shall be paid by Contractor.

h. Provide District on request with Contractor's written safety program and safety plan for each site.

10.2.7 Shoring and Structural Loading

The Contractor shall not impose structural loading upon any part of the Work under construction or upon existing construction on or adjacent to the Site in excess of safe limits, or loading such as to result in damage to the structural, architectural, mechanical, electrical, or other components of the Work. The design of all temporary construction equipment and appliances used in construction of the Work and not a permanent part thereof, including, without limitation, hoisting equipment, cribbing, shoring, and temporary bracing of structural steel, is the sole responsibility of the Contractor. All such items shall conform with the requirements of governing codes and all laws, ordinances, rules, regulations, and orders of all authorities having jurisdiction. The Contractor shall take special precautions, such as shoring of masonry walls and temporary tie bracing of structural steel Work, to prevent possible wind damage during construction of the Work. The installation of such bracing or shoring shall not damage the Work in place or the Work installed by others. Any damage which does occur shall be promptly repaired by the Contractor at no cost to the District.

10.2.8 Conformance within Established Limits

The Contractor and Subcontractors shall confine their construction equipment, the storage of materials, and the operations of workers to the limits indicated by laws, ordinances, permits, and the limits established by the District or the Contractor, and shall not unreasonably encumber the premises with construction equipment or materials.

10.2.9 Subcontractor Enforcement of Rules

Subcontractors shall enforce the District's and the Contractor's instructions, laws, and regulations regarding signs, advertisements, fires, smoking, the presence of liquor, and the presence of firearms by any person at the Site.

10.2.10 Site Access

The Contractor and the Subcontractors shall use only those ingress and egress routes designated by the District, observe the boundaries of the Site designated by the District, park only in those areas designated by the District, which areas may be on or off the Site, and comply with any parking control program established by the District, such as furnishing license plate information and placing identifying stickers on vehicles.

10.2.11 Security Services.

The Contractor shall be responsible for providing security services for the Site as needed for the protection of the Site and as determined in the District's sole discretion.

10.3 EMERGENCIES

10.3.1 <u>Emergency Action</u>

In an emergency affecting the safety of persons or property, the Contractor shall take any action necessary, at the Contractor's discretion, to prevent threatened damage, injury, or loss. Additional compensation or extension of time claimed by the Contractor on account of an emergency shall be determined as provided in Article 7.

10.3.2 <u>Accident Reports</u>

The Contractor shall promptly report in writing to the District all accidents arising out of or in connection with the Work, which caused death, personal injury, or property damage, giving full details and statements of any witnesses in conformance with Article 10.1.4. In addition, if death, serious personal injuries, or serious property damages are caused, the accident shall be reported in accordance with Paragraph 10.1.4, immediately by telephone or messenger to the District.

10.4 <u>HAZARDOUS MATERIALS</u>

10.4.1 Discovery of Hazardous Materials

In the event the Contractor encounters or suspects the presence on the job site of material reasonably believed to be asbestos, polychlorinated biphenyl (PCB), or any other material defined as being hazardous by § 25249.5 of the California Health and Safety Code, which has not been rendered harmless, the Contractor shall immediately stop Work in the area affected and report the condition to the District and the Architect in writing, whether or not such material was generated by the Contractor or the District. The Work in the affected area shall not thereafter be resumed, except by written agreement of the District and the Contractor, if in fact the material is asbestos, polychlorinated biphenyl (PCB), or other hazardous material, and has not been rendered harmless. The Work in the affected area shall be resumed only in the absence of asbestos, polychlorinated biphenyl (PCB), or other hazardous material, or when it has been rendered harmless by written agreement of the District and the Contractor.

10.4.2 Hazardous Material Work Limitations

In the event that the presence of hazardous materials is suspected or discovered on the Site (except in cases where asbestos and other hazardous material Work in the Contractor's responsibility), the District shall retain an independent testing laboratory to determine the nature of the material encountered and whether corrective measures or remedial action is required. The Contractor shall not be required pursuant to Article 7 to perform without consent any Work in the affected area of the Site relating to asbestos, polychlorinated biphenyl (PCB), or other hazardous material, until any known or suspected hazardous material has been removed, or rendered harmless, or determined to be harmless by District, as certified by an independent testing laboratory and approved by the appropriate government agency.

10.4.3 Indemnification by Contractor for Hazardous Material Caused by Contractor

In the event the hazardous materials on the Project Site is caused by the Contractor, the Contractor shall pay for all costs of testing and remediation, if any, and shall compensate the District for any additional costs incurred as a result of Contractor's generation of hazardous material on the Project Site. In addition, the Contractor shall defend, indemnify and hold harmless District and its agents, officers, and employees from and against any and all claims, damages, losses, costs and expenses incurred in connection with, arising out of, or relating to, the presence of hazardous material on the Project Site.

10.4.4 <u>Terms of Hazardous Material Provision</u>

The terms of this Hazardous Material provision shall survive the completion of the Work and/or any termination of this Contract.

ARTICLE 11 INSURANCE AND BONDS

11.1 CONTRACTOR'S LIABILITY INSURANCE

11.1.1 Insurance Requirements

Before the commencement of the Work, the Contractor shall purchase from and maintain in a company or companies lawfully authorized to do business in California as admitted carriers with a financial rating of at least an A status as rated in the most recent edition of Best's Insurance Reports or as amended by the Supplementary General Conditions, such insurance as will protect the District from claims set forth below, which may arise out of or result from the Contractor's operations under the Contract and for which the Contractor may be legally liable, whether such operations are by the Contractor, by a Subcontractor, by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable:

- a. Claims for damages because of bodily injury, sickness, disease, or death of any person District would require indemnification and coverage for employee claim;
- b. Claims for damages insured by usual personal injury liability coverage, which are sustained by a person as a result of an offense directly or indirectly related to employment of such person by the Contractor or by another person;
- c. Claims for damages because of injury or destruction of tangible property, including loss of use resulting therefrom, arising from operations under the Contract Documents;
- d. Claims for damages because of bodily injury, death of a person, or property damage arising out of the ownership, maintenance, or use of a motor vehicle, all mobile equipment, and vehicles moving under their own power and engaged in the Work:
- e. Claims involving contractual liability applicable to the Contractor's obligations under the Contract Documents, including liability assumed by and the indemnity and defense obligations of the Contractor and the Subcontractors; and
- f. Claims involving Completed Operations, Independent Contractors' coverage, and Broad Form property damage, without any exclusions for collapse, explosion, demolition, underground coverage, and excavating. (XCU)
- g. Claims involving sudden or accidental discharge of contaminants or pollutants.

11.1.2 Subcontractor Insurance Requirements

The Contractor shall require its Subcontractors to take out and maintain similar public liability insurance and property damage insurance required under Paragraph 11.1.1 in like amounts. A "claims made" or modified "occurrence" policy shall not satisfy the requirements of Paragraph 11.1.1 without prior written approval of the District.

11.1.3 <u>Additional Insured Endorsement Requirements</u>

The Contractor shall name, on any policy of insurance required under Paragraph 11.1, the District, Architect, Inspector, the State of California, their officers, employees, agents and independent contractors as additional insureds. Subcontractors shall name the Contractor, the District, Architect, Inspector, the State of California, their officers, employees, agents and independent contractors as additional insureds. The Additional Insured Endorsement included on all such insurance policies shall be an ISO CG 20 33 (04/813), or an ISO CG 20 38 (04/13) and ISO CG 20 37 (04/13) or their equivalent as determined by the District in its sole discretion, and must state that coverage is afforded the additional insured with respect to claims arising out of operations performed by or on behalf of the insured. If the additional insureds have other insurance which is applicable to the loss, such other insurance shall be on an excess or contingent basis. The insurance provided by the Contractor pursuant to 11.1.1 must be designated in the policy as primary to any insurance obtained by the District. The amount of the insurer's liability shall not be reduced by the existence of such other insurance.

11.1.4 <u>Specific Insurance Requirements</u>

Contractor shall take out and maintain and shall require all subcontractors, if any, whether primary or secondary, to take out and maintain:

1.	Comprehensive General Liability Insurance with a combined single limit per occurrence
	of not less than \$2,000,000.00 or Commercial General Liability Insurance (including
	automobile insurance) which provides limits of not less than:

(a)	Per	occurrence	(combined	single	limit)	\$1,000,000.00
(b)	Project	Specific Ag	gregate (for	this project	only)	\$2,000,000.00
(c)	Products	s and	Complete	d Ope	rations	\$1,000,000.00
(d)	Persona	l and	Advertising	Injury	Limit	\$1,000,000.00

2. Insurance Covering Special Hazards

The following Special hazards shall be covered by riders or riders to above mentioned public liability insurance or property damage insurance policy or policies of insurance, in amounts as follows:

(a)	Automotive	and	truck where	operate	ed 1n	amounts	\$1,000,000.00
(b)	Material	Hoist	where	used	in	amounts	\$1,000,000.00
(c)	Explosion, C (XCU cover		e and Undergro	und			\$1,000,000.00

3. In addition, provide Excess Liability Insurance coverage in the amount of Two Million Dollars (\$2,000,000.00).

11.2 WORKERS' COMPENSATION INSURANCE

During the term of this Contract, the Contractor shall provide workers' compensation insurance for all of the Contractor's employees engaged in Work under this Contract on or at the Site of the Project and, in case any of the Contractor's Work is subcontracted, the Contractor shall require the Subcontractor to provide workers' compensation insurance for all the Subcontractor's employees engaged in Work under the subcontract. Any class of employee or employees not covered by a Subcontractor's insurance shall be covered by the Contractor's insurance. In case any class of employees engaged in Work under this Contract on or at the Site of the Project is not protected under the Workers' Compensation laws, the Contractor shall provide or cause a Subcontractor to provide adequate insurance coverage for the protection of those employees not otherwise protected. The Contractor shall file with the District certificates of insurance as required under Paragraph 11.6 and in compliance with Labor Code § 3700.

11.3 BUILDER'S RISK/ "ALL RISK" INSURANCE

11.3.1 Course-of-Construction Insurance Requirements

The Contractor, during the progress of the Work and until final acceptance of the Work by District upon completion of the entire Contract, shall maintain Builder's Risk, Course of Construction or similar first party property coverage issued on a replacement cost value basis consistent with the total replacement cost of all insurable Work and the Project included within the Contract Documents. Coverage is to insure against all risks of accidental direct physical loss, and must include, by the basic grant of coverage or by endorsement, the perils of vandalism, malicious mischief (both without any limitation regarding vacancy or occupancy), fire, sprinkler leakage, civil authority, sonic boom, earthquake, flood, collapse, wind, lightning, smoke and riot. The coverage must include debris removal, demolition, increased costs due to enforcement of building ordinance and law in the repair and replacement of damage 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 which is the subject of the Contract Documents, including completed Work and Work in progress, to the full insurable value thereof. Such insurance shall include the District and the Architect as additional named insureds, and any other person with an insurable interest as designated by the District.

The Contractor shall submit to the District for its approval all items deemed to be uninsurable. The risk of the damage to the Work due to the perils covered by the "Builder's Risk/All Risk" Insurance, as well as any other hazard which might result in damage to the Work, is that of the Contractor and the surety, and no claims for such loss or damage shall be recognized by the District nor will such loss or damage excuse the complete and satisfactory performance of the Contract by the Contractor.

11.4 FIRE INSURANCE

Before the commencement of the Work, the Contractor shall procure, maintain, and cause to be maintained at the Contractor's expense, fire insurance on all Work subject to loss or damage by fire. The amount of fire insurance shall be sufficient to protect the Project against loss or damage in full until the Work is accepted by the District.

11.5 OTHER INSURANCE

The Contractor shall provide all other insurance required to be maintained under applicable laws, ordinances, rules, and regulations.

11.6 PROOF OF INSURANCE

The Contractor shall not commence Work nor shall it allow any Subcontractor to commence Work under this Contract until all required insurance and certificates have been obtained and delivered in duplicate to the District for approval subject to the following requirements:

a. Certificates and insurance policies shall include the following clause:

"This policy shall not be non-renewed, canceled, or reduced in required limits of liability or amounts of insurance until notice has been mailed to the District. Date of cancellation or reduction may not be less than thirty (30) days after the date of mailing notice."

- b. Certificates of insurance shall state in particular those insured, the extent of insurance, location and operation to which the insurance applies, the expiration date, and cancellation and reduction notices.
- c. Certificates of insurance shall clearly state that the District and the Architect are named as additional insureds under the policy described and that such insurance policy shall be primary to any insurance or self-insurance maintained by District.
- d. The Contractor and its Subcontractors shall produce a certified copy of any insurance policy required under this Section upon written request of the District.

11.7 COMPLIANCE

In the event of the failure of Contractor to furnish and maintain any insurance required by this Article 11, the Contractor shall be in default under the Contract. Compliance by Contractor with the requirement to carry insurance and furnish certificates or policies evidencing the same shall not relieve the Contractor from liability assumed under any provision of the Contract Documents, including, without limitation, the obligation to defend and indemnify the District and the Architect.

11.8 WAIVER OF SUBROGATION

Contractor waives (to the extent permitted by law) any right to recover against the District for damages to the Work, any part thereof, or any and all claims arising by reason of any of the foregoing, but only to the extent that such damages and/or claims are covered by property insurance and only to the extent of such coverage (which shall exclude deductible amounts) by insurance actually carried by the District.

The provisions of this section are intended to restrict each party to recovery against insurance carriers only to the extent of such coverage and waive fully and for the benefit of each, any rights and/or claims which might give rise to a right of subrogation in any insurance carrier. The District and the Contractor shall each obtain in all policies of insurance carried by either of them, a waiver by the insurance companies thereunder of all rights of recovery by way of subrogation for any damages or claims covered by the insurance.

11.9 PERFORMANCE AND PAYMENT BONDS

11.9.1 <u>Bond Requirements</u>

Unless otherwise specified in the Supplemental Conditions, prior to commencing any portion of the Work, the Contractor shall furnish separate payment and performance bonds for its portion of the Work which shall cover 100% faithful performance of and payment of all obligations arising under the Contract Documents and/or guaranteeing the payment in full of all claims for labor performed and materials supplied for the Work. All bonds shall be provided by a corporate surety authorized and admitted to transact business in California as sureties.

To the extent, if any, that the Contract Price is increased in accordance with the Contract Documents, the Contractor shall, upon request of the District, cause the amount of the bonds to be increased accordingly and shall promptly deliver satisfactory evidence of such increase to the District. To the extent available, the bonds shall further provide that no change or alteration of the Contract Documents (including, without limitation, an increase in the Contract Price, as referred to above), extensions of time, or modifications of the time, terms, or conditions of payment to the Contractor will release the surety. If the Contractor fails to furnish the required bonds, the District may terminate the Contract for cause.

11.9.2 Surety Qualification

Only bonds executed by admitted Surety insurers as defined in Code of Civil Procedure § 995.120 shall be accepted. Surety must be a California-admitted surety and listed by the U.S. Treasury with a bonding capacity in excess of the Project cost.

11.9.3 Alternate Surety Qualifications

If a California-admitted surety insurer issuing bonds does not meet these requirements, the insurer will be considered qualified if it is in conformance with § 995.660 of the California Code of Civil Procedure and proof of such is provided to the District.

ARTICLE 12 UNCOVERING AND CORRECTION OF WORK

12.1 COMPLIANCE WITH TITLE 24 INSTALLATION REQUIREMENTS

Contractor is aware of the requirements governing Contractor's Work under title 24 Section 4-343 which provides, in pertinent part:

4-343. Duties of the Contractor.

- (a) **Responsibilities**. It is the duty of the contractor to complete the Work covered by his or her contract in accordance with the approved plans and specifications therefore. The contractor in no way is relieved of any responsibility by the activities of the architect, engineer, inspector or DSA in the performance of such duties.
- (b) **Performance of the Work.** The contractor shall carefully study the approved plans and specifications and shall plan a schedule of operations well ahead of time. If at any time it is discovered that Work is being done which is not in accordance with the approved plans and specifications, the contractor shall correct the Work immediately. All inconsistencies or items which appear to be in error in the plans and specifications shall be promptly called to the attention of the architect or registered engineer, through the inspector, for interpretation or correction. In no case, however, shall the instruction of the architect or registered engineer be construed to cause Work to be done which is not in conformity with the approved plans, specifications, and change orders. The contractor must notify the project inspector, in advance, of the commencement of construction of each and every aspect of the Work.

12.1.1 Issuance of Notices of Non-Compliance

The Inspector may issue a Notice of Non-Compliance on the Project indicating deviation from plans and specifications. It is Contractor's responsibility to correct all deviations from the approved plans and specifications unless the District has issued an Immediate Change Directive. In such case, the Contractor shall proceed with the Work with the understandings of the District as set forth in the ICD and as specifically noted in Article 7.3.

12.2 SPECIAL NOTICE OF AMERICAN'S WITH DISABILITIES ACT

Some of the requirements in the plans and specifications are meant to comply with the American's with Disabilities Act ("ADA"). The requirements of the ADA are technical in nature and may appear to be minor in nature (i.e. whether a walkway or ramp has a 2% cross-slope). Contractor is warned that even the slightest deviation from the specific requirements from the ADA is considered a Civil Rights Violation and subjects the District to fines of three times actual damages sustained by a handicap individual or up to \$4,000 per violation and attorney's fees required to enforce the ADA violation. As a result of the significant liability and exposure associated with ADA aspects of the Contract, Contractor shall take special care to meet all ADA requirements detailed in the plans and specifications. Failure to comply with ADA rules that results in a Notice of Non-Compliance shall be repaired to meet ADA requirements promptly. In addition, any ADA violations that are not identified by Inspector or Architect that are later identified shall be repaired and charged back to the Contractor through a Deductive Change Order.

12.2.1 Indemnification of ADA Claims

ADA claims arising from failure to comply with plans and specifications shall be indemnified, held harmless and defended by Contractor. Further, any withholdings for ADA violations in Article 9.6 shall include potential redesign costs and an accelerated repair costs due to the potential for ADA claims arising from DSA posting of ADA violations on the Project.

12.3 UNCOVERING OF WORK

12.3.1 Uncovering Work for Required Inspections

Work shall not be covered without the Inspector's review and the Architect's knowledge that the Work conforms with the requirements of the approved plans and specifications (except in the case of an ICD under Article 7.3). Inspector must be timely notified of inspections and of new areas so Work can be inspected at least 48 hours before opening a new area (For example, see DSA Form 156 for Commencement/Completion of Work Notification which requires "at least 48 hour" advance notification of a new area). An Inspector must comply with DSA protocols for signing each category or phase of Work under DSA Form 152 (in compliance with the Form 152 Manual) or a Notice of Deviation (DSA Form 154) will be issued requiring the Work that was not inspected be uncovered for inspection. Thus, if a portion of the Work is covered without Inspection or Architect approval, is subject to a Notice of Non-Compliance for being undertaken without Inspection, or otherwise not in compliance with the Contract Documents, after issuance of a Written Notice of Non-Compliance (Form 154) or a written notice to uncover Work, Contractor shall promptly uncover all Work (which includes furnishing all necessary facilities, labor, and material) for the Inspector's or the Architect's observation and be replaced at the Contractor's expense without change in the Contract Sum or Time.

12.3.2 <u>Costs for Inspections Not Required</u>

If a portion of the Work has been covered is believed to be Non-Conforming to the Plans and Specifications, even if the Form 152 for the category of Work has been signed by the Inspector, the Inspector or the Architect may request to see such Work, and it shall be promptly uncovered by the Contractor. If such Work is in accordance with the Contract Documents, costs of uncover and replacement shall, by appropriate Change Order and shall, be charged to the District. If such Work is not in accordance with Contract Documents, the Contractor shall be responsible for all costs to uncover the Work, delays incurred to uncover the Work, and Contractor shall pay all costs to correct the incorrectly construction condition unless the condition was caused by the District or a separate contractor, in which event the District shall be responsible for payment of such costs to the Contractor.

12.4 CORRECTION OF WORK

12.4.1 Correction of Rejected Work

The Contractor shall promptly correct the Work rejected by the Inspector or the District upon recommendation of the Architect 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 cost for delays that may be incurred by Contractor or subcontractors, the cost for additional testing, inspections, and compensation for the Inspector's or the Architect's services and expenses made necessary thereby (including costs for preparing a CCD, DSA CCD review fess, and additional inspection and special inspection costs).

12.4.2 <u>One-Year Warranty Corrections</u>

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 under Paragraph 9.9.1, 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 unless the District has previously given the Contractor a written acceptance of such condition. This period of one (1) years 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 under this Paragraph 12.2.2 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.

12.4.3 District's Rights if Contractor Fails to Correct

If the Contractor fails to correct nonconforming Work within a reasonable time, the District may correct the Work and seek a Deductive Change Order, pursuant to Article 9.6 or Article 2.2.

ARTICLE 13 MISCELLANEOUS PROVISIONS

13.1 GOVERNING LAW

The Contract shall be governed by the law of the place where the Project is located.

13.2 SUCCESSORS AND ASSIGNS

The District and the Contractor respectively bind themselves, their partners, successors, assigns, and legal representatives to the other party hereto and to partners, successors, assigns, and legal representatives of such other party in respect to covenants, agreements, and obligations contained in the Contract Documents. Neither party to the Contract shall assign the Contract as a whole without written consent of the other. If either party attempts to make such an assignment without such consent, that party shall nevertheless remain legally responsible for all obligations under the Contract.

13.3 WRITTEN NOTICE

In the absence of specific notice requirements in the Contract Documents, written notice shall be deemed to have been duly served if delivered in person to the individual, member of the firm or entity, or to an officer of the corporation for which it was intended, or if delivered at or sent by registered or certified mail to the last business address known to the party giving notice.

13.4 RIGHTS AND REMEDIES

13.4.1 Duties and Obligations Cumulative

Duties and obligations imposed by the Contract Documents and rights and remedies available thereunder shall be in addition to and not a limitation of duties, obligations, rights, and remedies otherwise imposed or available by law.

13.4.2 No Waiver

No action or failure to act by the Inspector, the District, or the Architect shall constitute a waiver of a right or duty afforded them under the Contract Documents, nor shall such action or failure to act constitute approval of or acquiescence in a breach thereunder, except as may be specifically agreed in writing.

13.5 <u>TESTS AND INSPECTIONS</u>

13.5.1 Compliance

Tests, inspections, and approvals of portions of the Work required by the Contract Documents will comply with Division 1, Title 24, and with all other laws, ordinances, rules, regulations, or orders of public authorities having jurisdiction.

13.5.2 Independent Testing Laboratory

The District will select and pay an independent testing laboratory to conduct all tests and inspections. Selection of the materials required to be tested shall be made by the laboratory or the District's representative and not by the Contractor. Any costs or expenses of inspection or testing incurred outside

of a fifty (50) mile radius from the Project Site or not located in a contiguous county to the Site, whichever distance is greater, shall be paid for by the District, invoiced by the District to the Contractor, and deducted from the next Progress Payment.

13.5.3 Advance Notice to Inspector

The Contractor shall notify the Inspector a sufficient time in advance of its readiness for required observation or inspection so that the Inspector may arrange for same. The Contractor shall notify the Inspector 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 Inspector may arrange for the testing of the material at the source of supply.

13.5.4 <u>Testing Off-Site</u>

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 Inspector that such testing and inspection will not be required, shall not be incorporated in the Work.

13.5.5 Additional Testing or Inspection

If the Inspector, the Architect, the District, or public authority having jurisdiction determines that portions of the Work require additional testing, inspection, or approval not included under Paragraph 13.5.1, the Inspector will, upon written authorization from the District, make arrangements for such additional testing, inspection, or approval. The District shall bear such costs except as provided in Paragraph 13.5.7.

13.5.6 Costs for Retesting

If such procedures for testing, inspection, or approval under Paragraphs 13.5.1 and 13.5.2 reveal failure of the portions of the Work to comply with requirements established by the Contract Documents, the Contractor shall bear all costs arising from such failure, including those of re-testing, reinspection, or re-approval, including, but not limited to, compensation for the Architect's services and expenses. Any such costs shall be paid by the District, invoiced to the Contractor, and deducted from the next Progress Payment.

13.5.7 <u>Costs for Premature Test</u>

In the event the Contractor requests any test or inspection for the Project and is not completely ready for the inspection, the Contractor shall be invoiced by the District for all costs and expenses resulting from that testing or inspection, including, but not limited to, the Inspector's and Architect's fees and expenses, and the amount of the invoice of shall be deducted from the next Progress Payment.

13.6 TRENCH EXCAVATION

13.6.1 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, submit to the District or a Registered Civil or Structural Engineer employed by the District or

Architect, a detailed plan showing the design of shoring for protection from the hazard of caving ground during the excavation of such trench or trenches.

13.6.2 <u>Excavation Safety</u>

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.

13.6.3 <u>No Tort Liability of District</u>

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

13.6.4 No Excavation without Permits

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

13.7 WAGE RATES, TRAVEL, AND SUBSISTENCE

13.7.1 Wage Rates

Pursuant to the provisions of Article 2 (commencing at § 1720), Chapter 1, Part 7, Division 2, of the Labor Code, the District has obtained 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 works project is to be performed for each craft, classification, or type of worker needed for this Project from the Director of the Department of Industrial Relations ("Director"). These rates are on file at the administrative office of the District and are also available from the Director of the Department of Industrial Relations. Copies will be made available to any interested party on request. The Contractor shall post a copy of such wage rates at appropriate, conspicuous, weatherproof points at the Site.

Any worker employed to perform Work on the Project, but such Work is not covered by any classification listed in the published general prevailing wage rate determinations or per diem wages determined by the Director of the Department of Industrial Relations, shall be paid not less than the minimum rate of wages specified therein for the classification which most nearly corresponds to the employment of such person in such classification.

13.7.2 <u>Holiday and Overtime Pay</u>

Holiday and overtime work, when permitted by law, shall be paid for at the rate set forth in the prevailing wage rate determinations issued by the Director of the Department of Industrial Relations or at least one and one-half ($1\frac{1}{2}$) times the specified basic rate of per diem wages, plus employer payments, unless otherwise specified in the Contract Documents or authorized by law.

13.7.3 Wage Rates Not Affected by Subcontracts

The Contractor shall pay and shall cause to be paid each worker engaged in the execution of the Work on the Project not less than the general prevailing rate of per diem wages determined by the Director, regardless of any contractual relationship which may be alleged to exist between the Contractor or any Subcontractor and such workers.

13.7.4 Per Diem Wages

The Contractor shall pay and shall cause to be paid to each worker needed to execute the Work on the Project per diem wages including, but not limited to, employer payments for health and welfare, pensions, vacation, travel time and subsistence pay as provided for in Labor Code §1773.1.

13.7.5 Forfeiture and Payments

Pursuant to Labor Code §1775, the Contractor shall forfeit to the District, not more than Two Hundred Dollars (\$200.00) for each calendar day, or portion thereof, for each worker paid less than the prevailing wages rates as determined by the Director of the Department of Industrial Relations, for the work or craft in which the worker is employed for any Work done under the Agreement by the Contractor or by any Subcontractor under it. The amount of the penalty shall be determined by the Labor Commissioner and shall be based on consideration of: (1) whether the Contractor or Subcontractor's failure to pay the correct rate of per diem wages was a good faith mistake and, if so, the error was promptly and voluntarily correct upon being brought to the attention of the Contractor or Subcontractor; and (2) whether the Contractor or Subcontractor has a prior record of failing to meet its prevailing wage obligations.

13.8 RECORDS OF WAGES PAID

13.8.1 Payroll Records

- a. Pursuant to §1776 of the Labor Code, each Contractor and Subcontractor shall keep an accurate payroll record showing the name, address, social security number, work classification and 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 him or her in connection with the Project.
- b. All payroll records shall be certified and submitted to the District with each application for payment, but shall not be submitted less than once per month. All payroll records shall be available for inspection at all reasonable hours at the principal office of the Contractor on the following basis:
 - 1. A certified copy of an employee's payroll record shall be made available for inspection or furnished to the employee or his or her authorized representative on request.
 - 2. A certified copy of all payroll records shall be made available for inspection or furnished upon request to a representative of District, the Division of Labor Standards Enforcement or the Division of Apprenticeship Standards of the Department of Industrial Relations.
 - 3. A certified copy of all payroll records shall be made available upon request by the public for inspection or for copies thereof. However, a request by

the public shall be made through the District, the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement. If the requested payroll records have not been provided pursuant to Paragraph (2) above, the requesting party shall, prior to being provided the records, reimburse the costs, according to law for the preparation by the Contractor, Subcontractor(s), and the entity through which the request was made. The public shall not be given access to such records at the principal office of the Contractor.

- c. The certified payroll records shall be on forms provided by the Division of Labor Standards Enforcement or shall contain the same information as the forms provided by the Division of Labor Standards Enforcement.
- d. The Contractor or Subcontractor(s) shall file a certified copy of all payroll records with the entity that requested such records within 10 calendar days after receipt of a written request.
- Any copy of records made available for inspection as copies and furnished upon e. request to the public or any public agency by the District, the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement shall be marked or obliterated to prevent disclosure of an individual's name, address and social security number. The name and address of the Contractor awarded the Contract or the Subcontractor(s) performing the Contract shall not be marked or obliterated. Any copy of records made available for inspection by, or furnished to, a joint labor-management committee established pursuant to the federal Labor Management Cooperation Act of 1978 (Section 175a of Title 29 of the United States Code) shall be marked or obliterated only to prevent disclosure of an individual's name and social security number. Notwithstanding any other provision of law, agencies that are included in the Joint Enforcement Strike Force on the Underground Economy estblished pursuant to Section 329 of the Unemployment Insurance Code and other law enforcement agencies investigating violations of law shall, upon request, be provided non-redacted copies of certified payroll records.
- f. The Contractor shall inform the District of the location of all payroll records, including the street address, city and county, and shall, within five working days, provide a notice of a change of location and address.
- g. The Contractor or Subcontractor(s) shall have 10 calendar days in which to comply subsequent to receipt of a written notice requesting payroll records. In the event that the Contractor or Subcontractor(s) fails to comply within the 10-day period, the Contractor or Subcontractor(s) shall, as a penalty to the District, forfeit One Hundred Dollars (\$100.00) for each calendar day, or portion thereof, for each worker, until strict compliance is effectuated. Upon the request of the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement, these penalties shall be withheld from progress payments then due.

Responsibility for compliance with this Article shall rest upon the Contractor.

13.8.2 <u>Withholding of Contract Payments & Penalties</u>

The District may withhold or delay contract payments to the Contractor and/or any Subcontractor if:

- a. The required prevailing rate of per diem wages determined by the Director of the Department of Industrial Relations is not paid to all workers employed on the Project; or
- b. The Contractor or Subcontractor(s) fail to submit all required certified payroll records with each application for payment, but not less than once per month; or
- c. The Contractor or Subcontractor(s) submit incomplete or inadequate payroll records; or
- d. The Contractor or Subcontractor(s) fail to comply with the Labor Code requirements concerning apprentices; or
- e. The Contractor or Subcontractor(s) fail to comply with any applicable state laws governing workers on public works projects.

13.9 APPRENTICES

13.9.1 Apprentice Wages and Definitions

All apprentices employed by the Contractor to perform services under the Contract shall be paid the standard wage paid to apprentices under the regulations of the craft or trade for which he or she is employed, and as determined by the Director of the Department of Industrial Relations, and shall be employed only at the craft or trade to which he or she is registered. Only apprentices, as defined in §3077 of the Labor Code, who are in training under apprenticeship standards that have been approved by the Chief of the Division of Apprenticeship Standards and who are parties to written apprenticeship agreements under Chapter 4 (commencing with §3070) of Division 3, are eligible to be employed under this Contract. The employment and training of each apprentice shall be in accordance with the apprenticeship standards and apprentice agreements under which he or she is training, or in accordance with the rules and regulations of the California Apprenticeship Council.

13.9.2 <u>Employment of Apprentices</u>

Contractor agrees to comply with the requirements of Labor Code §1777.5. The Contractor awarded the Project, or any Subcontractor under him or her, when performing any of the Work under the Contract or subcontract, employs workers in any apprenticeable craft or trade, the Contractor and Subcontractor shall employ apprentices in the ratio set forth in Labor Code §1777.5. The Contractor or any Subcontractor must apply to any apprenticeship program in the craft or trade that can provide apprentices to the Project site for a certificate approving the contractor or subcontractor under the apprenticeship standards for the employment and training of apprentices in the area or industry affected. However, the decision of the apprenticeship program to approve or deny a certificate shall be subject to review by the Administrator of Apprenticeship. The apprenticeship program or programs, upon approving the Contractor or Subcontractor, shall arrange for the dispatch of apprentices to the Contractor or Subcontractor upon the Contractor's or Subcontractor's request. "Apprenticeable craft or trade" as used in this Article means a craft or trade determined as an apprenticeable occupation in accordance with the rules and regulations prescribed by the California Apprenticeship Council. The ratio of work performed by apprentices to

journeyman employed in a particular craft or trade on the Project shall be in accordance with Labor Code §1777.5.

13.9.3 Submission of Contract Information

Prior to commencing Work on the Project, the Contractor and Subcontractors shall submit contract award information to the applicable apprenticeship program(s) that can supply apprentices to the Project and make the request for the dispatch of apprentices in accordance with the Labor Code. The information submitted shall include an estimate of journeyman hours to be performed under the Contact, the number of apprentices proposed to be employed, and the approximate dates the apprentices would be employed. A copy of this information shall also be submitted to the District if requested. Within 60 days after concluding Work on the Project, the Contractor and Subcontractors shall submit to the District, if requested, and to the apprenticeship program a verified statement of the journeyman and apprentice hours performed on the Project.

13.9.4 Apprentice Fund

The Contractor or any Subcontractor under him or her, who, in performing any of the Work under the Contract, employs journeymen or apprentices in any apprenticeable craft or trade shall contribute to the California Apprenticeship Council the same amount that the Director determines is the prevailing amount of apprenticeship training contributions in the area of the Project. The Contractor and Subcontractors may take as a credit for payments to the California Apprenticeship Council any amounts paid by the Contractor or Subcontractor to an approved apprenticeship program that can supply apprentices to the Project. The Contractor and Subcontractors may add the amount of the contributions in computing his or her bid for the Contract.

13.9.5 <u>Prime Contractor Compliance</u>

The responsibility of compliance with Article 13 and §1777.5 of the Labor Code for all apprenticeable occupations is with the Prime Contractor. Any Contractor or Subcontractor that knowingly violates the provisions of this Article or Labor Code §1777.5 shall be subject to the penalties set forth in Labor Code §1777.7.

13.10 ASSIGNMENT OF ANTITRUST CLAIMS

13.10.1 Application

Pursuant to Government Code § 4551, in entering into a public works contract or a subcontract to supply goods, services, or materials pursuant to a public works contract, the Contractor or Subcontractor offers and agrees to assign to the District 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. § 15) or under the Cartwright Act (Chapter 2 [commencing with § 16700] of Part 2 of Division 7 of the Business and Professions Code), arising from the purchase of goods, services, or materials pursuant to the public works contract or the subcontract. This assignment shall be made and become effective at the time the awarding body tenders Retention Payment to the Contractor, without further acknowledgment by the parties. If the District receives, either through judgment or settlement, a monetary recovery for a cause of action assigned under Chapter 11 (commencing with § 4550) of Division 5 of Title 1 of the Government Code, the assignor shall be entitled to receive reimbursement for actual legal costs incurred and may, upon demand, recover from the District any portion of the recovery, including treble damages, attributable to overcharges that were paid by the assignor but were not paid by the District as part of the bid price, less the expenses incurred in obtaining that portion of the recovery.

13.10.2 <u>Assignment of Claim</u>

Upon demand in writing by the assignor, the District shall, within one (1) year from such demand, reassign the cause of action assigned pursuant to this Article if the assignor has been or may have been injured by the violation of law for which the cause of action arose and the District has not been injured thereby or the District declines to file a court action for the cause of action.

13.11 STATE AND DISTRICT CONDUCTED AUDITS

Pursuant to and in accordance with the provisions of Government Code § 10532, or any amendments thereto, all books, records, and files of the District, the Contractor, or any Subcontractor connected with the performance of this Contract involving the expenditure of state funds in excess of Ten Thousand Dollars (\$10,000.00), including, but not limited to, the administration thereof, shall be subject to the examination and audit of the Office of the Auditor General of the State of California for a period of five (5) years after Retention Payment is made or a Notice of Completion is Recorded, whichever occurs first. Contractor shall preserve and cause to be preserved such books, records, hard drives, electronic media, and files for the audit period.

Pursuant to the remedies under Public Contract Code Section 9201 and Government Code Section 930.2, Contractor, through execution of this Agreement, also agrees the District shall have the right to review and audit, upon reasonable notice, the books and records of the Contractor concerning any monies associated with the Project. The purpose of this Audit is to quickly and efficiently resolve disputes based on the actual costs incurred and to reduce the uncertainty in resolving disputes with limited information. The District shall perform any audits at its own cost and any such audit shall be performed by an independent auditor, having no direct or indirect relationship with the functions or activities being audited or with the business conducted by the Contractor or District. In the even the independent auditor determines that Change Orders, Response to Request for Proposals, Claims, Appeal of Claims, or other requests for payment the Auditor shall report the results of the Audit findings to the District and provide a copy to the Contractor after giving the District Board the opportunity for at least 10 days review. If the Contractor disputes the findings of the independent auditor, such dispute shall be handled in the manner set forth under Article 4.6.2 entitled Disputes.

If Contractor having agreed to the terms of this Contract fails to produce books or records requested by Auditor, such failure to produce books or records that were required to be preserved for audit, it shall be presumed that the information contained in the withheld books or records were unfavorable to the Contractor and the Auditor shall note this refusal in the results of the Audit findings for further evaluation by the District and the District's Board. The refusal to release records that are concerning monies associated with the Project may be used as a grounds to Debar the Contractor under Article 15 for failure to preserve records under Article 13.11 and the failure to produce required audit records may also be used as a grounds for a negative finding against the Contractor depending on the significance of the records that are withheld by Contractor. Failure to produce Job Cost Data tied to Job cost categories and budgets shall be presumed an intentional failure to produce key audit records. Similarly, failure to produce daily time records (prepared at or near the time of the Work actually took place(See Article 3.16) shall be presumed an intentional failure to produce key audited records.

If Contractor is seeking costs for inefficiency, home office overhead, or unanticipated increased costs due to delays or acceleration, Contractor shall also produce copies of the original bid tabulation utilized in submitting Contractors bid for the Project. This document shall be considered confidential and shall not be subject to disclosure through a Public Records Act and shall not be distributed to anyone other than the District and the District's counsel. This bid tabulation shall only be used in litigation, arbitration, evaluation of Claims or Disputes, Audit, and trial. If the records for the bid tabulation

are kept on a computer, the Contractor shall also produce all metadata (in native format) that accompanies the bid tabulation for inspection to prove the authenticity of the underlying bid tabulation. Failure to produce the bid tabulation for review of inefficiency, home office overhead, or unanticipated increased costs due to delays or accelerations shall be considered material evidence that the bid tabulation was not favorable to the Contractor. This evidence shall be entered as a jury instruction for trial that the bid tabulation was not produced and the bid tabulation information was unfavorable to the Contractor. The evidence may also be used in Debarment Proceedings, and noted as an exception to an Audit Findings.

Upon notification of Contractor concerning the results of the audit and a reasonable time has passed for Contractor to respond to Audit Findings and if either there is no Dispute of the Audit findings under Article 4.6.2 or if the result after utilizing the Disputes Clause confirms the Audit findings, the District may seek reimbursement for overstated Claims, Change Orders, or Appeal of Claims and may also undertake Debarment Proceedings under Article 15 of these General Conditions.

13.12 STORM WATER POLLUTION PREVENTION

13.12.1 Application

This Section addresses the implementation and monitoring of a Storm Water Pollution Prevention Plan (SWPPP) for the purpose of preventing the discharge of pollutants from the construction site. This includes the elimination of pollution discharges such as improper dumping, spills or leakage from storage tanks or transfer areas. The Contractor shall secure a certification that the construction project has met all of the conditions of the General Construction Activity Storm Water Permit (GCASP) and comply with all applicable local, state, and federal regulations governing storm water pollution prevention.

13.12.2 References and Materials

California Storm Water BMP Handbook for Construction Activity (BMP Handbook).

Use materials of a class, grade and type needed to meet the performance described in the BMP Handbook.

13.12.3 <u>Implementation</u>

The Contractor shall implement the Storm Water Pollution Prevention Plan by doing the following:

- a. Install perimeter controls prior to starting other construction Work at the site.
- b. Contain on-site storm water at the jobsite. Do not drain on-site water directly into the storm drain.
- c. Provide SWPPP and BMP implementation training for those responsible for implementing the SWPPP.
- d. Designate trained personnel for the proper implementation of the SWPPP.
- e. Revise the SWPPP to suit changing site conditions and instances when properly installed systems are ineffective.
- f. At the end of Construction Contract.

- 1. Leave in place storm water pollution prevention controls needed for postconstruction storm water management and remove those that are not needed as determined by the District. Thereafter, left-in-place controls will be maintained by the District.
- 2. Provide Site Monitoring Reports, SWPPP revisions, Compliance Certifications and related documents to the District. Post-construction storm water operation and management plan as mentioned in the compliance certifications are considered to be in place at the end of the Construction Contract.

13.12.4 Monitoring

The Contractor shall conduct examination of storm water pollution prevention controls monthly, as well as before and after each storm event and once each 24-hour period during extended storm events to identify BMP effectiveness and implement repairs or BMP changes as soon as feasible. All maintenance related to a storm event should be completed within 48 hours of the storm event. The Contactor shall also prepare and maintain, at the jobsite, a log of each inspection using Site Monitoring Report forms.

13.12.5 <u>Liabilities and Penalties</u>

- a. Review of the SWPPP and inspection logs by the District shall not relieve the Contractor from liabilities arising from non-compliance with storm water pollution regulations.
- b. Payment of penalties for non-compliance by the Contractor shall be the sole responsibility of the Contractor and will not be reimbursed by the District.
- c. Compliance with the Clean Water Act pertaining to construction activity is the sole responsibility of the Contractor. For any fine(s) levied against the District due to non-compliance by the Contractor, the District may issue a Deductive Change Order or make withholding pursuant to Article 9.6 for the total amount of the fine(s) levied on the District, plus legal and associated costs.
- d. The Contractor shall submit to the District a completed NOI for change of information (Construction Site Information and Material Handling/Management Practices).

TERMINATION OR SUSPENSION OF THE CONTRACT

13.13 TERMINATION BY THE CONTRACTOR FOR CAUSE

13.13.1 Grounds for Termination

The Contractor may terminate the Contract if the Work is stopped for a period of thirty (30) consecutive days through no act or fault of the Contractor, a Subcontractor, a Sub-subcontractor, their agents or employees, or any other persons performing portions of the Work for whom the Contractor is contractually responsible, for only the following reasons:

- a. Issuance of an order of a court or other public authority having jurisdiction; or
- b. An act of the United State or California government, such as a declaration of national emergency.

13.13.2 <u>Notice of Termination</u>

If one of the above reasons exists, the Contractor may, upon written notice of seven (7) additional days to the District, terminate the Contract and recover from the District payment for Work executed and for reasonable costs verified by the Architect with respect to materials, equipment, tools, construction equipment, and machinery, including reasonable overhead, profit, and damages.

13.14 TERMINATION BY THE DISTRICT FOR CAUSE

13.14.1 Grounds for Termination

The District may terminate the Contractor and/or this Contract for the following reasons:

- a. Persistently or repeatedly refuses or fails to supply enough properly skilled workers or proper materials;
- b. Persistently or repeatedly is absent, without excuse, from the job site;
- c. Fails to make payment to Subcontractors, suppliers, materialmen, etc.;
- d. Persistently disregards laws, ordinances, rules, regulations, or orders of a public authority having jurisdiction;
- e. Fails to provide a schedule or fails or refuses to update schedules required under the Contract;
- f. Falls behind on the Project and refuses or fails to undertake a recovery schedule;
- g. If the Contractor has been debarred from performing Work
- h. Becomes bankrupt or insolvent, including the filing of a general assignment for the benefit of creditors; or
- i. Otherwise is in substantial breach of a provision of the Contract Documents.

13.14.2 <u>Notification of Termination</u>

When any of the above reasons exist, the District may, without prejudice to any other rights or remedies of the District and after giving the Contractor and the Contractor's surety written notice of seven (7) days, terminate the Contractor and/or this Contract and may, subject to any prior rights of the surety:

- a. Take possession of the Project and of all material, equipment, tools, and construction equipment and machinery thereon owned by the Contractor;
- b. Accept assignment of Subcontracts. Contractor acknowledges and agrees that if the District (in its sole and absolute discretion) decides to takeover completion of the Project, the Contractor agrees to immediately assign all subcontracts to the District which the District has chosen to accept;
- c. Complete the Work by any reasonable method the District may deem expedient, including contracting with a replacement contractor or contractors; and,
- d. Agree to accept a takeover and completion arrangement with Surety that is acceptable to the District Board.

13.14.3 Takeover and Completion of Work after Termination for Cause

A Termination for Cause is an urgent matter which requires immediate radiation since Project Work is open and incomplete, the site is subject to vandalism and theft, the Project site is considered a public nuisance, and there is a possibility of injury and deterioration of the Project Work and materials. Thus, the District shall be entitled to enter a takeover contract to either remediate the unfinished condition or complete the Work for this Project.

13.14.4 Payments Withheld

If the District terminates the Contract for one of the reasons stated in Paragraph 14.2.1, the Contractor shall not be entitled to receive further payment until the Work is complete. All costs associated with the termination and completion of the Project shall be the responsibility of the Contractor and/or its surety.

13.14.5 Payments upon Completion

If the unpaid balance of the Contract Sum exceeds costs of completing the Work, including compensation for professional services and expenses made necessary thereby, such excess shall be paid to the Contractor. If such costs exceed the unpaid balance, the Contractor and its Surety shall pay the difference to the District. The amount to be paid to the Contractor, or District, as the case may be, shall be certified by the Architect upon application. This payment obligation shall survive completion of the Contract.

13.15 TERMINATION OF CONTRACT BY DISTRICT (CONTRACTOR NOT AT FAULT)

13.15.1 Termination for Convenience

District may terminate the Contract upon fifteen (15) calendar days of written notice to the Contractor and use any reasonable method the District deems expedient to complete the project, including

contracting with replacement contractor or contractors, if it is found that reasons beyond the control of either the District or Contractor make it impossible or against the District's interest to complete the Work. In such a case, the Contractor shall have no claims against the District except: (1) the actual cost for labor, materials, and services performed which may be documented through timesheets, invoices, receipts, or otherwise, and (2) ten percent (10%) profit and overhead, and (3) five percent (5%) termination cost of the total of items (1) and (2). Contractor acknowledges and agrees that if the District (in its sole and absolute discretion) decides to takeover completion of the Project, the Contractor agrees to immediately assign all subcontracts to the District which the District has chosen to accept.

13.15.2 Non-Appropriation of Funds/ Insufficient Funds

In the event that sufficient funds are not appropriated to complete the Project or the District determines that sufficient funds are not available to complete the Project, District may terminate or suspend the completion of the Project at any time by giving written notice to the Contractor. In the event that the District exercises this option, the District shall pay for any and all work and materials completed or delivered onto the site for which value is received, and the value of any and all work then in progress and orders actually placed which cannot be canceled up to the date of notice of termination. The value of work and materials paid for shall include a factor of fifteen percent (15%) for the Contractor's overhead and profit and there shall be no other costs or expenses paid to Contractor. All work, materials and orders paid for pursuant to this provision shall become the property of the District. District may, without cause, order Contractor in writing to suspend, delay or interrupt the Project in whole or in part for such period of time as District may determine. Adjustment shall be made for increases in the cost of performance of the Agreement caused by suspense, delay or interruption.

13.16 REMEDIES OTHER THAN TERMINATION

If a default occurs, the District may, without prejudice to any other right or remedy, including, without limitation, its right to terminate the Contract pursuant to Article 14.2, do any of the following:

- a. Permit the Contractor to continue under this Contract, but make good such deficiencies or complete the Contract by whatever method the District may deem expedient, and the cost and expense thereof shall be deducted from the Contract Price or paid by the Contractor to the District on demand;
- b. If the workmanship performed by the Contractor is faulty or defective materials are provided, erected or installed, then the District may order the Contractor to remove the faulty workmanship or defective materials and to replace the same with work or materials that conform to the Contract Documents, in which event the Contractor, at its sole costs and expense, shall proceed in accordance with the District's order and complete the same within the time period given by the District in its notice to the Contractor; or
- c. Initiate procedures to declare the Contractor a non-responsible bidder for a period of two (2) to five (5) years thereafter.

All amounts expended by the District in connection with the exercise of its rights hereunder shall accrue interest from the date expended until paid to the District at the maximum legal rate. The District may retain or withhold any such amounts from the Contract Price. If the Contractor is ordered to replace any faulty workmanship or defective materials pursuant to Paragraph (b) above, the Contractor shall replace the same with new work or materials approved by the Architect and the District, and, at its own cost, shall repair or replace, in a manner and to the extent the Architect and the District shall direct, all Work or material that is damaged, injured or destroyed by the removal of said faulty workmanship or defective

material, or by the replacement of the same with acceptable work or materials. In no event shall anything in this Paragraph be deemed to constitute a waiver by the District of any other rights or remedies that it may have at law or in equity, it being acknowledged and agreed by the Contractor that the remedies set forth in this Paragraph are in addition to, and not in lieu of, any other rights or remedies that the District may have at law or in equity.

ARTICLE 14 DEBARMENT

14.1 <u>DEBARMENT MEANS THERE HAS BEEN A FINDING THAT THE CONTRACTOR IS</u> NOT RESPONSIBLE.

During the course of the Project, or if it is determined through Change Orders, Claims, or Audit that a Contractor is not responsible, the District may, in addition to other remedies provided in the Contract, debar the Contractor from bidding or proposing on, or being awarded, and/or performing work on District contracts for a specified period of time, which generally will not exceed five (5) years, but may exceed five (5) years or be permanent if the circumstances warrant such debarment. In addition to the debarment proceeding, a finding that a Contractor is to be debarred shall result in the termination of any or all existing Contracts the Contractor may have with the District.

14.2 BOARD FINDING

The District may debar a Contractor if the Board, or the Board's delagatee, in its discretion, finds the Contractor has done any of the following:

- 14.2.1 Intentionally or with reckless disregard, violated any term of the Contract with the District
- 14.2.2 Committed an acts or omission which reflects on the Contractor's quality, fitness or capacity to perform Work for the District;
- 14.2.3 Committed an act or offense which indicates a lack of business integrity or business honesty; or,
 - 14.2.4 Made or submitted a false claim against the District or any other public entity.
 - 14.2.5 Hearing
 - 14.2.6 Presentation of Evidence

If there is evidence that the Contractor may be subject to debarment, the District shall notify the Contractor in writing of the evidence which is the basis for the proposed debarment and shall advice the Contractor of the scheduled date for a debarment hearing before the District Board.

The District Board, or designee, shall conduct a hearing where evidence on the proposed debarment is presented. The Contractor or the Contractor's representative shall be given an opportunity to submit evidence at the hearing. The Contractor shall be provided an adequate amount of time to prepare and object to evidence presented. A tentative proposed decision shall be issued as a tentative decision and the District shall be entitled to modify, deny or adopt the proposed decision. The proposed decision shall contain a recommendation regarding whether the Contractor should be debarred, and, if so, the appropriate length of time of the debarment. The Contractor and the District shall be provided an opportunity to object to the tentative proposed decision for a period of 15 days. If additional evidence is presented, the District shall evaluate this evidence and either issue an amended ruling, issue the same ruling, or call a further hearing.

If a Contractor has been debarred for a period of longer than five (5) years, that Contractor may after the debarment has been in effect for at least five (5) years, submit a written request for review of the debarment determination to reduce the period of debarment or terminate the debarment. The District may,

in its discretion, reduce the period of debarment or terminate the debarment if it finds that the Contractor has adequately demonstrated one or more of the following: (1) elimination of the grounds for which the debarment was imposed; (2) a bona fide change in ownership or management; (3) material evidence discovered after debarment was imposed; or (4) any other reason that is in the best interests of the District.

The District will consider a request for review of a debarment determination only where: (1) the Contractor has been debarred for a period longer than five (5) years; (2) the debarment has been in effect for at least five (5) years; and (3) the request is in writing, states one or more of the grounds for reduction of the debarment period or termination of the debarment, and includes supporting documentation. Upon receiving an appropriate request, the District will provide notice of the hearing on the request. At the hearing, the District shall review evidence on the proposed reduction of debarment period. This hearing shall be conducted and the request for review decided by the District pursuant to the same procedures as for a debarment hearing.

The District's proposed decision shall contain a recommendation on the request to reduce the period of debarment or terminate the debarment.

The terms shall also apply to Subcontractors of District Contractors.

ARTICLE 15

SUPPLEMENTARY GENERAL CONDITIONS

The following supplements modify the General Conditions. Where a portion of the General Conditions is modified and or deleted by these Supplementary Conditions, the unaltered portions of the General Conditions shall remain in effect.

ARTICLE 3 – THE CONTRACTOR

Article 3.8.1(a) Requirements – In addition to these requirements, the schedule shall include the following Milestone Schedule:

Article 3.10.4.4 - List of Manufacturers and Products Required – Revise first sentence to read: The Contractor shall require all Subcontractors to prepare and submit to the Contractor, within *fifteen (15)* days of execution of the Subcontract, comprehensive lists, in quadruplicate, of the manufacturers and products proposed for the Project, including information on materials, equipment, and fixtures required by the Contract Documents, as may be required for the Contractor's or Architect's approval.

ARTICLE 8 – TIME

- Article 8.2.2 Performance During Working Hours delete this Article and replace with the following:
 - 8.2.2 Where a single shift is worked, eight (8) consecutive hours between 6 a.m. and 8 p.m. shall constitute a work day at the applicable prevailing wage rate(s).
- Article 8.2.2 Performance During Working Hours delete this Article and replace with the following:
 - 8.2.2 Forty (40) hours between Monday, 6 a.m. and Sunday, 8 p.m. shall constitute a work week at the applicable prevailing wage rate(s);
- Article 8.4.1 Liquidated Damages Contractor will be liable to Owner for liquidated damages pursuant to Article 8.4 for each calendar day of delay in the amount of \$250/ per day.

ARTICLE 11 – INSURANCE AND BONDS

Article 11.9 Performance and Payment Bonds – The number of executed copies of the Performance Bond and the Payment Bond required is three (3).

ARTICLE 13

COMPLIANCE MONITORING UNIT [TO BE USED ONLY ON PROJECTS USING FUNDS FROM ANY STATE ISSUED BOND]

This Project is subject to labor compliance monitoring and enforcement by the Compliance Monitoring Unit ("CMU") within the Division of Labor Standards Enforcement pursuant to Title 8, California Code of Regulations, Section 16450 et seq.

The Contractor and all Subcontractors shall be required to furnish, at least monthly, electronic certified payroll records directly to the Labor Commissioner/ Compliance Monitoring Unit in accordance with Title 8, California Code of Regulations, Section 16450 et seq. All payroll records shall be furnished in a format prescribed by Title 8, California Code of Regulations, Section 16401. The Contractor and all Subcontractors must enroll in CMU's eCPR system to submit electronic certified payroll records. The District will have direct and immediate access to all CPRs for the Project that are submitted through the eCPR system. The District can use this information for any appropriate purpose, including monitoring compliance, identifying suspected violations, and responding to Public Records Act requests.

The CMU may conduct various compliance monitoring and enforcement activities including, but not limited to, confirming the accuracy of payroll records, conducting worker interviews, conducting audits, requiring submission of itemized statements prepared in accordance with Labor Code section 226, and conducting random in-person inspections of the Project site ("On-Site Visits"). On-Site Visits may include inspections of records, inspections of the Work site and observation of work activities, interviews of workers and others involved with the Project, and any other activities deemed necessary by the CMU to ensure compliance with prevailing wage requirements. The CMU shall have free access to any construction site or other place of labor and may obtain any information or statistics pertaining to the lawful duties of the Labor Commissioner.

Any lawful activities conducted or any requests made by the CMU shall not be the basis for any delays, claims, costs, damages or liability of any kind against the District by the Contractor. Contractor and all Subcontractors shall cooperate and comply with any lawful requests by the Compliance Monitoring Unit. The failure of the CMU, the Division of Labor Standards Enforcement, or any other part of the Department of Industrial Relations to comply with any requirement imposed by the California Code of Regulations, Title 8, Chapter 8 shall not of itself constitute a defense to the failure to pay prevailing wages or to comply with any other obligation imposed by Division 2, Part 7, Chapter 1 of the Labor Code.

Prior to commencing any Work on the Project, the Contractor shall post the notice/poster required under Title 8, California Code of Regulations, Section 16451(d) in both English and Spanish at a conspicuous, weatherproof area at the Project site. The required notice/poster is available on the CMU website, at the Division of Labor Standards Enforcement District Offices or can be obtained by emailing a request to CMU@dir.ca.gov.

Division 1 Forms

IMMEDIATE CONSTRUCTION CHANGE DIRECTIVE NO.

PROJECT NAME: 2019 Kitchen Upgrades, Vallecitos Elementary School
BID NO.: 2019-12-002
TO:
You are hereby directed to provide the extra work necessary to comply with this ICD.
DESCRIPTION OF CHANGE:
COST (This cost shall not be exceeded):
TIME FOR COMPLETION:
NOTE:
Pursuant to Article 7.3.1.2 An Immediate Change Directive is a written order to the Contractor prepared by the Architect and signed by the District (and CM if there is a CM on the Project) and the Architect, directing a change in the Work and stating a proposed basis for adjustment, if any, in the Contract Sum or Contract Time, or both. The District may by ICD, without invalidating the Contract, direct immediate changes in the Work within the general scope of the Contract consisting of additions, deletions, or other revisions within. If applicable, the Contract Sum and Contract Time will be adjusted accordingly. CONTRACTOR SHALL PROCEED WITH WORK SET FORTH IN THIS ICD IMMEDIATELY UPON RECEIPT OR THE DISTRICT MAY EITHER HOLD THE CONTRACTOR IN EITHER PARTIAL DEFAULT PURSUANT TO ARTICLE 2.2 OR TOTAL DEFAULT PURSUANT TO ARTICLE 14.
Architect
District

CERTIFICATE OF SUBSTANTIAL COMPLETION

SECTION 01 1100 SUMMARY OF WORK

PART 1 - GENERAL

1.01 SUMMARY

A. Project: The project scope includes the demolition of existing millwork, flooring, and walls (abate materials where required) in the existing kitchen space. Also, remodeling of the kitchen space to include accessibility upgrades and equipment to satisfy requirements established by the County of San Diego Department of Environmental Health. The estimated construction cost is \$260,000. at Vallecitos Elementary School at 5211 Fifth Street, Rainbow, CA 92028, County of San Diego, California, for the Vallecitos School District, 5211 Fifth Street, Rainbow, CA 92028.

B. <u>Description of Work:</u>

- 1. As indicated in the Contract Documents prepared by MGPA Architecture.
- 2. Americans with Disabilities Act Access Compliance ADA upgrades, as indicated in the Contract Documents prepared by MGPA Architecture.

1.02 WORK SEQUENCE

- A. Work is to be conducted in a single phase based on a single lump-sum Base Bid.
- B. All work shall be completed within the number of calendar days stipulated in the Agreement, calculated from the date of commencement of work stipulated in the Notice to Proceed.

1.03 TRADE CONTRACTOR USE OF PREMISES

- A. Construction may take place while school is in session and students are present. Trade Contractor shall take all precautions necessary to prevent student and public access to the construction area. The Trade Contractor shall also be responsible for the following:
 - By entering into this Contract, Trade Contractor acknowledges that the safety of the students is the overriding and paramount concern during construction. School staff will exercise due diligence to ensure the safety of the children, however, safety shall be a cooperative effort.
 - Trade Contractor shall cooperate and coordinate fully with the School District and School staff to ensure the safety and welfare of the students. Prior to the commencement of school in the fall, all Trade Contractors shall attend a safety meeting with the Contractor and School District personnel to establish safety guidelines (access, crossings, times, etc.) for the Project.
 - 3. Any student that inadvertently wanders into the construction area shall immediately be escorted to the School Principal's office.
 - 4. No construction personnel shall be allowed to use any school facilities, such as restrooms, telephones, or drinking fountains.
 - 5. No construction personnel shall be allowed to discourse or otherwise interact with students or school staff, other than as may be necessary for safety purposes or proper execution of this contract.
 - 6. Trade Contractor shall immediately remove from the site any construction personnel who, in the opinion of the Owner, refuse to comply with the above requirements.

- 7. Access to the work site may be restricted by the District during parent pick-up and dropoff time. At all times, the Contractor is to coordinate construction activities with the District to eliminate disruption of normal school function.
- B. When, for the proper execution of this Contract for construction, access is necessary to parts of the campus other than the designated construction area (such as for communication systems connections), a minimum 72-hour notice shall be given to the School Principal. Trade Contractor shall cooperate fully with School staff in order to minimize disruption to the proper operation of the school.
- C. Trade Contractor shall schedule necessary utility shut-downs for construction purposes that might affect the proper operation of the school during times that school is not in session. No disruption of electrical service, fire-sprinkler lines, fire alarms, domestic water, sewers or gas service, will be allowed while school is in session.
- D. During the construction period, the Trade Contractors shall have full use of the construction area within the construction fence for construction operations. The Trade Contractors' use of the construction area is limited only by the Owner's right to perform construction operations with its own forces or to employ separate contractors on portions of the project.
- E. Limit use of the premises to construction activities in areas indicated. Confine operations to areas within Contract limits indicated. Portions of the site beyond areas in which construction operations are indicated are not to be disturbed.
- F. Keep driveways and entrances serving the premises clear and available to the Owner and the Owner's employees and agents at all times. Do not use these areas for parking or storage of materials. Schedule deliveries to minimize space and time requirements for the storage of materials and equipment on site.

1.04 OCCUPANCY

- A. The Owner will occupy the Project in the manner outlined in Section 01 7700 Contract Closeout, and as set forth in the General Conditions. Refer to General Conditions Article 8 and Article 9 for occupancy and completion conditions.
- B. <u>Partial Owner Occupancy:</u> The Owner reserves the right to occupy and to place and install equipment in completed areas of the buildings prior to Substantial Completion. Such placing of equipment and partial occupancy shall not constitute acceptance of the total Work.
 - A Certificate of Substantial Completion will be executed for each specific portion of the Work to be occupied prior to Owner occupancy; however, this is not to be construed as acceptance of the specific portion of the work.
 - 2. Trade Contractor shall be responsible to obtain the requisite occupancy certificates issued by local agencies that may have jurisdiction, including the County Health Department and the local Fire Department, prior to partial Owner occupancy.
 - 3. Prior to partial Owner occupancy, mechanical and electrical systems shall be fully operational in the areas to be occupied. Required inspections and tests shall have been successfully completed. Trade Contractor agrees that he shall provide operation and maintenance of mechanical and electrical systems in occupied portions of the building, shall maintain security and insurance, shall pay for utilities, and shall be responsible to damage to the Work by his own forces, until such time as Notice of Completion is filed by the District and registered by the County Recorder.
 - 4. No warranties or guarantees shall go into effect until after Notice of Completion has been registered by the County Recorder for the Work as a whole.

PART 2 PRODUCTS – NOT APPLICABLE

PART 3 EXECUTION – NOT APPLICABLE

END OF SECTION

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SECTION 01 2900 APPLICATIONS FOR PAYMENT

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes: Administrative and procedural requirements governing the Contractor's Applications for Payment.
- B. Related Work:
 - 1. **RECORD DOCUMENTS:** All requirements for record documents, Specifications Section 01 7839, shall be satisfied to the Architect's satisfaction prior to Architect's processing of each month's Application for Payment.

1.02 SCHEDULE OF VALUES

- A. Coordinate preparation of the Schedule of Values with the preparation of the Network Analysis Schedule.
- B. Submit the Schedule of Values to the Architect at the earliest feasible date, but in no case later than seven (7) days after Notice to Proceed. Include with initial submission a projected monthly payment request schedule for the total cost of the project, for Owner's cash flow planning.
- C. Acceptance of the Schedule of Values by the Architect, the Inspector of Record and the Owner is required prior to approval and payment of the first application for payment.
- D. Format and Content: The Project Manual Table of Contents may be used as a general guide to format the Schedule of Values; specific item numbers may be sequentially numerical.
 - 1. The Schedule of Values shall be a detailed breakdown of the price to provide and install each item of work and material on the project.
 - 2. Each line item on the Schedule of Values shall be presented to allow the Architect to easily find that item of work within the construction during his review of the construction operations and evaluate whether that line item is 100% complete or not.
 - 3. Each line item of the Schedule of Values shall be given a value by the Contractor that, in the opinion of the Contractor, best represents the value of that work, and if required to present evidence of his opinion, the Contractor will be able to substantiate the value by the use of supplier, subcontractor written quotations, labor wages/rates, hourly estimates and/or by industry recognized cost estimating references. Contractor to list Bond amount (matching bond premium on actual bond) and Bid Allowance as separate line items.
 - 4. Arrange the Schedule of Values in a tabular form with separate columns to indicate the following for each item listed. Each sheet of the Schedule of Values shall be titled and numbered sequentially.
 - a. Line Item Number
 - b. Description of Item.
 - c. Quantity.
 - d. Unit of Measure.
 - e. Labor Price.
 - f. Material Price

- g. Value of Line Item.
- h. Line Item Value Request this month.
- i. Line Item Value Previously completed.
- j. Amount of Retention, Per Line Item
- k. At the bottom of each sheet, the Total Amount of Columns g. h. and i. shall be tabulated and carried forward on each page and the TOTAL AMOUNT presented at the end.
- E. Round amounts off to the nearest whole dollar; the total shall equal the Contract Sum.
- F. Schedule Updating: Update and resubmit the Schedule of Values when Change Orders or Construction Change Directives result in a change in the Contract Sum, after official approval by the Owner's Board of Directors.

1.03 APPLICATIONS FOR PAYMENT

- A. Each Application for Payment shall be consistent with previous applications and payments as certified by the **Architect** and paid for by the Owner.
 - The initial Application for Payment, the Application for Payment at the time of Substantial Completion, and the final Application for Payment involve additional requirements.
- B. Payment Application Times: Monthly Progress Payment Applications must be EMAILED to the Architect's office for review and approval NO LATER than the 22nd day of each month. The Architect will review and approve the Progress Payment request and notify the Contractor of any discrepancies. The Approved Progress Payment Application shall represent the amount of Work completed through the end of that month. The original copy of the Approved Progress Payment Request form must be in the Architect's office no later than the 1st day of the following month of the application for Progress Payment, transmitted in accordance with paragraph C. below. NO EXCEPTIONS TO THIS REQUIREMENT WILL BE MADE. Payment requests received after this time and date will be held to be included in the Request for Payment to the Owner the following month.
- C. Payment Application Forms: Use AIA Documents G702 and G703 forms.
- D. Application Preparation: Complete every entry on the form, including notarization and execution by a person authorized to sign legal documents on behalf of the Owner. Incomplete applications will be returned without action.
 - 1. Entries shall match data on the Network Analysis Schedule. Use updated schedules if revisions have been made.
 - 2. Include amounts of Owner-approved Change Orders and Construction Change Directives issued prior to the last day of the construction period covered by the application.
- E. Transmittal: Submit four (4) executed copies of each Application for Payment to the Architect via e-mail with originals mailed to the Architect's office. Transmit copy with transmittal form listing attachments and recording appropriate information related to the application in a manner acceptable to the Architect.
 - 1. Transmit each copy with a transmittal form listing attachments, and recording appropriate information related to the application in a manner acceptable to the Architect.

- F. Waivers of Mechanics Lien: With each Application for Payment, submit waivers of mechanics lien from entity who may lawfully be entitled to file a mechanics lien or a California 20 day Preliminary Notice arising out of the Contract, and related to the Work covered by the payment.
 - Submit each Application for Payment with the Contractor's waiver of mechanics lien, Conditional Upon Progress Payment lien release, Unconditional Upon Progress Payment, Conditional Upon Final Payment lien release, or Unconditional Upon Final Payment as applies, and as notified by the Architect for the period covered by the Application.
 - Submit final Application for Payment with, or preceded by, final waivers from entity involved with the performance of Work covered by the application who could lawfully be entitled to a lien.
- G. Initial Application for Payment: Administrative actions and submittals that must precede submittal of the first Application for Payment include the following:
 - 1. List of subcontractors (include names, addresses, contact name, emergency contact name & telephone numbers).
 - 2. Schedule of Values.
 - 3. Contractor's Construction Schedule.
 - 4. Schedule of unit prices, if applicable.
 - 5. Submittal Schedule.
 - 6. Copies of permits as may be required to start the Work (i.e. business license, encroachment permits, etc., may be obtained as necessary for sequence of Construction).
 - 7. Copies of authorizations and licenses from governing authorities for the performance of the Work.
 - 8. Initial progress report.
 - 9. Report of pre-construction meeting.
 - 10. Certificates of insurance and insurance policies.
 - 11. Performance and payment bonds.
 - 12. Resumés of Contractor's Project Managers and Superintendent of Construction, or Foreman.

Note: Each preceding item shall be <u>submitted</u> to the Architect, <u>accepted</u> by the Architect, and <u>approved</u> by the Owner prior to the certification and approval of the first payment to the Contractor.

- H. Application for Payment at Substantial Completion: Following the issuance of the Certificate of Substantial Completion, submit an Application for Payment; this application shall reflect Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions of the Work. Administrative actions and submittals that shall proceed or coincide with this application include:
 - 1. Occupancy permits and similar approvals.
 - 2. Warranties (guarantees) and maintenance agreements.
 - 3. Test/adjust/balance records.
 - 4. Maintenance instructions.
 - 5. Meter readings.

- 6. Start-up performance reports.
- 7. Change-over information related to Owner's occupancy, use, operation, and maintenance.
- 8. Final cleaning.
- 9. Application for reduction of retainage, and consent of surety.
- 10. Advice on shifting insurance coverages.
- 11. Final progress photographs.
- 12. List of incomplete Work, recognized as exceptions to Architect's Certificate of Substantial Completion. Each work item value shall be listed and the total amount deducted from amounts owed over and above the retention.
- I. Final Payment Application: Administrative actions and submittals which must precede or coincide with submittal of the final payment Application for Payment include the following:
 - 1. Completion of Project closeout requirements.
 - 2. Completion of items specified for completion after Substantial Completion.
 - 3. Written assurance that unsettled claims will be settled.
 - 4. Written assurance that Work not complete and accepted will be completed without undue delay.
 - 5. Transmittal of required Project construction records to Owner.
 - 6. Certified property survey.
 - 7. Proof that taxes, fees, and similar obligations have been paid.
 - 8. Removal of temporary facilities and services.
 - 9. Removal of surplus materials, rubbish, and similar elements.
 - 10. Change of door locks to Owner's access.
 - 11. Furnish Unconditional Final Lien Releases (Form #4) from all suppliers/subcontractors who filed preliminary notices on the Project.

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION (NOT APPLICABLE)

END OF SECTION

SECTION 01 3113 PROJECT COORDINATION/CONTRACTOR'S PERSONNEL

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes administrative and supervisory requirements required to ensure orderly progress and timely completion of the Work.
- B. Related Work Described Elsewhere:
 - 1. Additional requirements forcoordination are included on Contract Drawings and other Sections of the Specifications. It is intended that all work provided under this Contract shall be complete except where otherwise specified or shown. Any Drawing, document, or Section, by itself, is not a complete description of the work. Cross-references to related work, where given, are provided as a convenience and shall not limit the applicability of other requirements specified or shown unless specifically stated.

1.02 CONTRACTOR'S PERSONNEL AND RESUMES

- A. Within five (5) days of Notice to Proceed, the Contractor shall submit resumés in triplicate for the proposed Contractor's Project Manager and Construction Superintendent,
- B. Project Manager: The resumé for the Project Manager designated by the Contractor to direct this Project shall list the following minimum information:
 - 1. Formal training, education, or certification in construction management or construction technology.
 - 2. Prior experience managing construction projects of the level of complexity and dollar value of this construction contract.
 - 3. Prior experience in permitting, inspection, and approval processes of regulatory agencies and utilities on projects of this magnitude and complexity.
 - 4. Reference contacts (name and telephone number) of at least three Architects or other Owners' agents for construction projects which the proposed Project Manager has directed.
- C. Construction Superintendent: The resumé for the Construction Superintendent designated by the Contractor to supervise this Project must show the following minimum information:
 - 1. Formal training, education, or certification in a construction related discipline.
 - 2. Prior experience as a full-time job-site superintendent on projects of the level of complexity and dollar value of this construction contract.
 - 3. Prior experience in permitting, inspection, and approval processes of regulatory agencies and utilities on jobs of this magnitude and complexity.
 - 4. Reference contacts (name and telephone number) of at least three Architects or other Owners' agents for construction projects which the proposed Construction Superintendent has supervised.
- D. Applications for Payment will not be processed by the Owner until written approval of the Architect is given to the Contractor for the above-named personnel.

1.03 QUALITY ASSURANCE

- A. Familiarity With Contract Documents:
 - Contractor and all Subcontractors shall conduct a study necessary to become completely
 familiar with all requirements. Applicable requirements indicated or described in the
 Contract Documents, and the publications referred to, are a part of the Work required as
 though repeated in each such Section.
 - 2. In the event discrepancies or conflicts are encountered, notify the Architect immediately. Where there is a discrepancy between different parts of the contract documents, including referenced codes and standards, the documents requiring the higher quality, the greater quantity, or the more difficult work shall govern, unless determined otherwise in writing by the Architect.
 - 3. Promptly distribute required information to entities concerned and ensure the needed actions are taken.
- B. Reporting: Unless otherwise noted by the Contractor in his transmittals, all of the Contractor's data transmittals to the Architect for the Architect's review will be construed as stipulating that the Contractor has thoroughly and completely reviewed and coordinated the data prior to transmittal.
- C. Interfacing: It shall be solely the responsibility of the Contractor to make sure that each Subcontractor completes in a timely manner the assigned work and that all interfaces are prepared, connected, and function as required.

1.04 REQUEST FOR INFORMATION

- A. Requests for Information (RFIs) are required as a documented means of communication between Contractor and Architect. The Contractor shall plan, schedule, coordinate, and sequence Work so RFIs, if necessary, may be submitted to the Architect in a timely manner so as not to delay the progress of the Work. Submission of, and responses to, RFIs, with copies to Owner, shall be transmitted to the Architect. RFIs shall not be submitted to the Inspector.
- B. Telephone conversations requesting information shall be confirmed in writing for a prompt reply of all RFIs. Contractor shall coordinate the timing of facsimile transmittals and telephone conversations to be made with the Architect's office between the hours of 8:00 a.m. and 5:00 p.m., Monday through Friday.
- C. Each RFI shall be limited to one specific topic, question, or issue, and if at all possible, limited to one or two sentences. RFIs shall be submitted on a standard form on the Contractor's letterhead or on the RFI form at the end of this section and shall be numbered sequentially. All RFIs must be submitted through the Contractor. The following information must be included on each RFI:
 - 1. RFI number, date of issue, Architect's project name and job number. Attachments, if any (sketches, sub-contractor documentation, supporting information, etc), must also show this information on each separate page.
 - 2. Text of RFI
 - 3. Indication if the topic in question may have a possible impact on Contract Amount or Contract Time.
 - 4. Space for a hand-printed response (one-third to one-half of the page)
 - 5. Space for respondent signature and date.
- D. The architect will have the same time period to respond to an RFI as "shop drawing review period".

E. Nuisance RFIs: When the Architect responds to an RFI within five (5) working days after receipt of an RFI but when the response, answer, or information requested is already contained or included within the contract documents, or is already contained or included within referenced standards, or is a reiteration of established and common construction practices, or is information normally and legitimately generated by the Contractor or his subcontractors during preparation of submittals, the Contractor shall reimburse the Architect for his time in answering the RFI at the following hourly rates:

Project Manager/Architect: \$150

Draftsperson: \$115 Support Staff: \$85

If nuisance RFI requires Architect's consultant's acknowledgment, the Contractor shall reimburse the Architect's consultant at the same hourly rates for the consultant's staff, plus fifteen percent for the Architect. The contractor will be billed at the time of the Contractor's Application for Payment. Payments to the Architect not received within 30 days will be deducted from subsequent Contractor's Applications for Payment in accordance with the General Conditions.

- F. No damages for delay due to RFI response beyond allotted time will be allowed, unless Contractor can show that RFI was not foreseeable with proper planning, scheduling, coordination, and sequencing, and that the Architect's late response delayed timely purchase or delivery of equipment or material, or limited construction personnel from proceeding with their task(s) within previously listed "Progress Schedule" activity period(s).
- G. When the Architect is required to respond to an RFI that requires the Architect or Engineers to redesign or re-engineer an aspect of the Work due to a desire of the Contractor for an alternate means of construction, or to allow a deviation from the Work due to Contractor error, Contractor shall reimburse the Architect/Engineer for his time answering the RFI in the same manner as described in item D above. Time spent in obtaining approvals from regulatory agencies for the change shall also be reimbursed in like manner.

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION

3.01 PLANNING THE WORK

- A. By thorough advance planning of activities, coordinate the following in addition to other coordination activities required:
 - 1. Materials, services, and equipment purchasing.
 - 2. Shipping.
 - 3. Receipt and storage at the site.
 - 4. Installation, including interface with related items provided by other Contractors.
 - 5. Inspection and testing, to the extent required under the Contract.
 - 6. Assistance in initial start-up and operational tests.
 - 7. Completion of the Work, including removal and disposal of Contractor's surplus material and equipment, and final cleaning of structures and sites.

3.02 COORDINATION

A. Coordination: Coordinate construction activities included under various Sections of these Specifications to ensure the efficient and orderly installation of each part of the Work. Coordinate

construction operations included under different Sections of the Specifications that are dependent upon each other for proper installation, connection, and operation.

- B. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and ensure orderly progress of the Work.
- C. Other Contracts: Cooperate with the Owner in the coordination of other work the Owner may elect to initiate on this site.

3.03 GENERAL INSTALLATION PROVISIONS

- A. Coordination methods used by the Contractor are at the Contractor's option, except that the Architect may disapprove Work completed by the Contractor or data submitted by the Contractor when, in the Architect's judgment, coordination has been inadequate to ensure the specified quality.
- B. Mounting Heights: Where mounting heights are not indicated, install individual components at standard mounting heights recognized within the industry for the particular application indicated. Refer questionable mounting height decisions to the Architect for a final decision.

3.04 WEEKLY PROGRESS MEETINGS

A. **Contractors** will be required to attend Weekly Progress Meetings while working on site and 2 weeks prior to the scheduled start of Work.

3.05 DAILY REPORTS

A. Daily Reports for the previous day's work must be submitted to the Contractor's Field office no later than 8:AM. Reports shall be on the form provided by the Contractor. They may be hand written.

3.06 CLEANING

- A. **Contractor** shall be responsible for daily clean up of the **Contractor's** own debris, and removal of same from the job site, including dumpsters and fees necessary for cleaning.
- B. The job site shall be kept in "broom-swept" condition at all times.
- C. Failure of the Contractor to Perform Cleaning Duties: The Contractor will perform the work after a 48-hour e-mailed Notice to the Contractor. Owner shall be reimbursed at the rate of \$75.00 per hour, plus dumping fees, for performing this work. Owner must receive reimbursement for cleaning from the Contractor prior to the next pay application processing.

3.07 TESTS AND INSPECTION

A. Inspection Request Forms must be completed a minimum of 24 hours in advance of requested inspection and given to the Inspector.

END OF SECTION

SECTION 01 3119 PROJECT MEETINGS

PART 1 - GENERAL

1.01 PRE-CONSTRUCTION CONFERENCE

- A. The Contractor will schedule a conference prior to the start of construction.
- B. Mandatory Attendance: Owner, Contractor, Architect, Consultants, and Trade Contractors.
- C. The purpose of the conference is to establish the working relationships between the Contractor, Architect, and Trade Contractors during the construction of the project. Areas of responsibility, operational procedures, payment processing, and scheduling will be covered in detail.

1.02 PROGRESS MEETINGS

- A. Contractor shall schedule and administer progress meetings throughout progress of the work.
- B. Contractor shall make physical arrangements for meetings, prepare agenda with copies for participants, preside at meetings, record minutes, and distribute copies to Owner, Architect, participants, and those affected by decisions made at the meetings.
- C. Attendance: Contractor, major trade contractors, suppliers when specifically requested, Architect, and Owner as appropriate to agenda topics for each meeting.
- D. Suggested Agenda: Review of Work progress, payment requests, status of progress schedule, and adjustments thereto, delivery schedules, submittals, maintenance of quality standards, pending changes and substitutions, review status of record drawings, and other affecting progress of the work.

1.03 WEEKLY SAFETY MEETINGS

A. Each Trade Contractor responsible for holding weekly "tailgate" safety meetings with their own employees and all of their subcontractor's employees, addressing safety pertinent to their ongoing activities. **TRADE CONTRACTOR** to provide copy of each sign in sheet/weekly meeting minutes every week to the **CONTRACTOR**. Current records will be evaluated each month at the time the Progress Pay Application is processed.

PART 2 – PRODUCTS (NOT APPLICABLE)

PART 3 – EXECUTION (NOT APPLICABLE)

END OF SECTION

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SECTION 01 3300 SUBMITTALS

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes:

- Wherever possible throughout the Contract Documents, the minimum acceptable quality
 of workmanship and materials have been defined by manufacturer's name and catalog
 number, reference to recognized industry and government standards, or description of
 required attributes and performance.
- 2. To ensure that the specified products are furnished and installed in accordance with design intent, submit design product and data in advance for review by the Owner.
- 3. Make submittals required by the Contract Documents. Revise and resubmit as necessary to establish compliance with the specified requirements.
- 4. ALL SUBMITTALS, WITH THE EXCEPTION OF PHYSICAL PRODUCT OR COLOR SAMPLES, SHALL BE MADE BY DIGITAL ELECTRONIC MAIL, UTILIZING PDF FILES. Submittal review will be returned electronically. No multiple "hard copies" will be accepted, unless previous arrangements are made with the Architect due to unusual circumstances. Large files (greater than 5MB) are to be uploaded to a file service such as YouSendIt, SendSpace, or an FTP site of choice.
- B. Related Work Described Elsewhere: Additional specific requirements for submittals are described in other Sections of these Specifications.

1.02 QUALITY ASSURANCE

- A. Coordination of Submittals: Prior to each submittal, review and coordinate each item being submitted and verify that each item and the submittal conform with the requirements of the Contract Documents. By affixing the Trade Contractor's signature to each submittal, certify that this coordination has been performed.
- B. Certificates of Compliance:
 - Certify that materials used in the Work comply with specified provisions thereof.
 Certification shall not be construed as relieving the Contractor from furnishing satisfactory materials if, after tests are performed on selected samples, the material is found not to meet specified requirements.
 - Show on each certification the name and location of the Work, name, and address of Contractor, quantity and date or dates of shipment or delivery to which the certificate applies, and name of the manufacturing or fabricating company. Certification shall be in the form of a letter or company-standard forms containing the required data. Certificates shall be signed by an officer of the manufacturing or fabricating company.
 - 3. In addition to the above information, laboratory test reports submitted shall show the date or dates of testing, the specified requirements of which testing was performed, and results of the test or tests.

1.03 SUBMITTALS

- A. Contractor shall submit all shop drawings, samples, requests for substitutions, mix designs, and other items, in accordance with this Section.
- B. Prior to submittal of the Contractor's first application for payment, submit a schedule of all submittals required by the Contract Documents.
- C. Submittals shall be submitted per the following time schedule for the following specific items. Failure to submit by these dates will be considered sufficient grounds to delay certification of Contractor's Application for Payment until these items are received in proper order.
 - 1. Within **5 calendar days** after Notice to Proceed:
 - a. Concrete mix design, steel connectors to be embedded in concrete foundations and slabs, ALL STRUCTURAL STEEL, materials for underground site plumbing, sewer, storm drainage, and underground site electrical, sheet metal roofing, fire alarm, HVAC Controls.
 - 2. Within **5 calendar days** after Notice to Proceed:
 - a. <u>All Requests for Substitutions:</u> After this date, no further requests for substitution will be considered, and Contractor shall be obligated to provide the specified products <u>NO EXCEPTIONS.</u>
 - b. All materials requiring a color selection by the Owner.
 - 3. Within **5 calendar days** after Notice to Proceed:
 - a. **ALL OTHER SUBMITTALS**. All submittals absolutely must be turned in no later than 20 days after Notice to Proceed for every bid package no exceptions will be permitted.
- D. Provide required submittals for the following products to interface with other portions of the Work. Submit data to verify compliance only.
 - 1. For products specified only by reference standard, select product meeting that standard, by manufacturer.
 - 2. For products specified by naming several products or manufacturers, select one of the products or manufacturers named.
 - 3. For products specified by naming one or more products or manufacturers and stating "or other approved', or "or approved equivalent", or other such wording on drawings or within specifications sections, submit a request for substitutions for product or manufacturer which is not specifically named, but only after submitting bid on specified products and systems.
- E. Other products proposed for use, including those specified only by required attributes and performance, require review by the Owner before being incorporated into the Work. Certificates of compliance or test reports shall be provided to indicate for the record that the proposed products meet the specified requirements.

PART 2 - PRODUCTS

2.01 SHOP DRAWINGS AND COORDINATION DRAWINGS

- A. Scale and Measurements: Make shop drawings to a scale sufficiently large to shown pertinent aspects of the item and its method of connection to the Work.
- B. Type of Prints Required: When Contractor desires a reproducible shop drawing, submit shop drawings in the form of one clean, clear sepia transparency of each sheet plus eight (8) blueline print or blackline print of each sheet.

- C. Reproduction of Reviewed Shop Drawings: Printing and distribution of reviewed shop drawings for the Owner's use will be by the Owner.
- D. Review comments of the Reviewer will be shown on the sepia transparency when it is returned to the Contractor. The Contractor shall make and distribute copies required for his purposes.

2.02 MANUFACTURERS' LITERATURE

- A. General: Where submitted literature from manufacturers includes data not pertinent to the submittal, indicate which portion of the contents is being submitted for review.
- B. Number of Copies Required: ONE set of pdf files delivered electronically. Hard copies will not be accepted. The District will distribute stamped copies to Engineers, Architect, and other pertinent parties. This requirement supersedes individual specification Sections that may require "hard copies".
- C. The Contractor shall make and distribute copies required for his purposes.

2.03 SAMPLES

- A. Accuracy of Samples: Precise article proposed to be furnished shall be identified with a submittal number.
- B. Number of Samples Required: Submit quantity required to be returned plus two each to be retained by the Owner.
- C. Reuse of Samples: In situations accepted by the Owner, the Owner's retained sample may be used in the construction as one of the installed items.
- D. Size of Samples: Samples shall be 6" x 6", or manufactured width by 12 inches unless otherwise required by the pertinent Specification section.

2.04 COLORS AND PATTERNS

A. Unless the precise color and pattern is specifically described in the Contract Documents, and whenever a choice of color or pattern is available in a specified product, submit accurate color and pattern charts to the Architect for review and selection. Submit data to verify compliance only.

PART 3 - EXECUTION

3.01 IDENTIFICATION OF SUBMITTALS

- A. General: Consecutively number submittals within the respective specification section. Accompany each submittal with transmittal cover letters attached to the end of this Section. Fill out each transmittal cover letter completely, number sequentially, include specification section, name of supplier or installer, and contact person and telephone number. A copy of the Architect's submittal form must be stapled to each copy of each submittal, or each set of drawings which comprise a submittal.
- B. Internal Identification: On the first page of each copy of each submittal, and elsewhere as required for positive identification, indicate the submittal number.
- C. Re-Submittals: When material is resubmitted, transmit under a new letter of transmittal and with same submittal number plus a "alphabetic" suffix indicating its a re-submittal, e.g. 05500-1A, 05500-1B.
- D. Submittal Log: Maintain submittal log for the duration of the Contract. Show current status of submittals, with columns showing "approved", "approved as corrected", etc., to match Owner's categories. Make the submittal log available for the Owner's review upon request. Log shall be available and will be reviewed at each project meeting (by Architect).

3.02 COORDINATION OF SUBMITTALS

- A. The Contractor shall be responsible to coordinate and review all submittals prior to forwarding to Owner. All submittals shall be stamped with Contractor's stamp, signed and dated, stating:
 - 1. Contractor has reviewed submittal for compliance with requirements of the Contract Documents.
 - 2. Contractor has reviewed submittal for proper interfacing with other trades.
- B. General: Prior to making submittals, coordinate materials including, but not necessarily limited to:
 - 1. Determine and verify interface conditions, catalog numbers, and similar data,
 - 2. Coordinate with other trades as required,
 - Clearly indicate deviations from requirements of the Contract Documents. Deviations
 which are not clearly called out as a deviation and which subsequently become a part of
 an approved submittal can under no circumstances be considered legitimate grounds for
 an additive change order.
- C. Grouping of Submittals: Make submittals in groups containing associated items to ensure that information is available for checking each item when it is received. Partial submittals may be rejected as not complying and the Contractor shall be strictly liable for occasioned delays.
- D. Color selections for materials in the same space or same elevation shall be submitted at one time. "Piecemeal" submission of the color samples or charts is unacceptable and will be returned awaiting a "complete" submission.

3.03 OWNER'S REVIEW

- A. General: Corrections or comments made on Shop Drawings during his review shall not relieve the Contractor from compliance with requirements of the Drawings and Specifications. This check is only for review of general conformance with the design concept of the project and general compliance with the information given in the Contract Documents. The Contractor is responsible for confirming and correlating quantities and dimensions; selecting fabrication processes and techniques of construction; coordinating his work with that of other trades, and performing his work in a safe and satisfactory manner.
 - 1. Authority to Proceed: The notations "No Exception Taken", "Furnish as Submitted", "Approved", "Provide as Corrected", "Approved as Noted", authorize the Contractor to proceed with fabrication, purchase, or both or the items so noted, subject to the revisions, if any, required by the Owner's review comments.
 - 2. Revisions: The notation "Revise and Resubmit" or "Submit Specified Item", means make revisions required by the Owner and resubmit. If the Contractor considers required revision to be a change, he shall so notify the Owner as provided for under "Changes" or "Changes in the Work" in the General Conditions. Show each drawing revision by number, date, and subject in a revision block on the drawing. Make only those revisions directed by or accepted by the Owner.
 - 3. Rejection: The notation "Rejected" means the submission does not meet requirements of project contract documents. Make new submission meeting project contract documents.

END OF SECTION

(ATTACHMENT: SUBMITTAL TRANSMITTAL FORM)

SUBMITTAL TRANSMITTAL FORM

General Contractor:				Submittal No.:				
Project:				Range	: :			
Address:			Printed On:					
Transmitted To: Date				Qty	Submittal Package Action			
MGPA Architecture								
6965 El Camino Real, St	Submitte	Submitted By:		Transmitted For:		Delivered By:		
Carlsbad, CA 92009								
Tel: 760-929-1500								
Email:								
Submittal Package No.	escription		Trade		Trade			
<u> </u>		-						
Submittal Items	Descriptio	n	Note	PC			Item A	Action
34071110441 2001115	Description		1,000				10011	
Remarks			Con	ies To				

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SECTION 01 3516 ALTERATION PROJECT PROCEDURES

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes: Special procedures required for alteration work.

1.02 SCHEDULING

- A. Before commencing alteration or demolition work, submit for review by the Architect and approval of the Owner, a schedule showing the commencement, the order and the completion dates for the various parts of this work.
- B. Before starting work relating to existing utilities (electrical, sewer, water, heat, gas, fire lines, etc.) that will temporarily discontinue or disrupt service to the existing building, notify the Architect and the Owner 72 hours in advance and obtain the Owner's approval in writing before proceeding with this phase of the work.

1.03 PROTECTION

- A. Make such explorations and probes as are necessary to ascertain required protective measures before proceeding with demolition and removal. Give particular attention to shoring and bracing requirements so as to prevent damage to existing construction.
- B. Provide, erect, and maintain catch platforms, lights, barriers, weather protection, warning signs, and other items as required for proper protection of the public, occupants of the building, workmen engaged in demolition operations, and adjacent construction.
- C. Provide and maintain temporary protection of the existing structure designated to remain where demolition, removal and new work is being done, connections made, materials handled, or equipment moved.
- D. Take necessary precautions to prevent dust and dirt from rising by wetting demolished masonry, concrete, plaster and similar debris. Protect unaltered portions of the existing building affected by the operations under this Section by dustproof partitions and other adequate means.
- E. Provide adequate fire protection in accordance with local Fire Departments, and with Section 01 5200, Construction Facilities and Temporary Controls.
- F. Do not close or obstruct walkways, passageways or stairways. Do not store or place materials in passageways, stairs, or other means of egress. Conduct operations with minimum traffic interference.
- G. Be responsible for damage to the existing structure or contents by reason of the insufficiency of protection provided.

PART 2 - EXECUTION

2.01 WORKMANSHIP

- A. Perform demolition, removal and alteration work with due care. Be responsible for damage which may be caused by such work to part or parts of existing structures or items designated for re-use. Perform patching, restoration, and new work in accordance with applicable technical sections of the Specifications.
- B. Materials and items designated to become the property of the Owner shall be as shown. Remove such items with care, under the supervision of the trade responsible for reinstallation; protect and

store until required. Replace material and item damaged in its removal with approved similar and equal new material.

- C. Materials and items demolished and not designated to become the property of the Owner or to be reinstalled shall become the property of the Contractor and shall be removed from the Owner's property. Storage or sale of removed items on site will not be permitted.
- D. Execute the work in a careful and orderly manner, with the least possible disturbance to the public and to the occupants of the building.
- E. Where alterations occur, or new and old work join, cut, remove, patch, repair or refinish the adjacent surfaces or so much thereof as is required by the involved conditions, and leave in as a good a condition as existed prior to the commencing of the work. The alteration work shall be performed by the various respective trades which normally perform the particular items of work.
- F. Finish new and adjacent existing surfaces as specified for new work. Clean existing surfaces of dirt, grease, loose paint, etc. before refinishing.
- G. Where existing equipment and fixtures are indicated to be re-used, repair such equipment and fixtures and refinish to put in perfect working order. Refinish as directed.
- H. Cut out embedded anchorage and attachment items as required to properly provide for patching and repair of the respective finishes.

2.02 CLEANING UP

A. Remove debris as the work progresses. Maintain the premises in a neat and clean condition.

PART 3 - EXECUTION (NOT APPLICABLE)

END OF SECTION

SECTION 01 4219 REFERENCE STANDARDS

PART 1 - GENERAL

1.01 SUMMARY

- A. Throughout the Contract Documents, reference is made to codes and standards which establish qualities and types of workmanship and materials, and methods for testing and reporting on the pertinent characteristics.
- B. Provide materials and workmanship which meet or exceed the specifically named code or standard.
- C. Deliver to the Architect required proof that the materials or workmanship, or both, meet or exceed the requirements of the specifically named code or standard. Such proof shall be in the form requested by the Architect and will generally be required to be copies of a certified report of tests conducted by a testing agency acceptable for that purpose to the Architect.

1.02 RELATED WORK SPECIFIED ELSEWHERE

A. Specific naming of codes or standards occurs on the Drawings and in other Sections of these
Specifications. Comply with laws, ordinances, and regulations of authorities having jurisdiction.
Proof of compliance shall be signed approval by the respective authorities having jurisdiction.
Costs relative thereto shall be borne by the Contractor.

1.03 QUALITY ASSURANCE

- A. Familiarity with Pertinent Codes and Standards: Verify the requirements of the specifically named codes and standards as well as requirements mandated by law, ordinance, and authority. Verify that the items procured and installed in this Work meet or exceed the specified requirements.
- B. Rejection of Noncomplying Items: The Architect reserves the right to reject items incorporated into the Work which fail to meet such minimum requirements.

1.04 APPLICABLE CODES

A. Work of the project shall conform to the following codes, copies of which will be kept at the job site by each trade contractor for their applicable scope of work, for the duration of the project. Code books to be made available for Contractor/Inspector of Record/Architect's review at all times:

PARTIAL LIST OF APPLICABLE CODES AS OF January 1, 2017

2016 California Administrative Code, Part 1, Title 24 C.C.R.

2016 California Building Code (CBC), Part 2, Title 24 C.C.R.

(2015 International Building Code Volumes 1-2 and 2016 California Amendments)

2016 California Electrical Code (CEC), Part 3, Title 24 C.C.R.

(2014 National Electrical Code and 2016 California Amendments)

2016 California Mechanical Code (CMC) Part 4, Title 24 C.C.R.

(2015 Uniform Mechanical Code and 2016 California Amendments)

2016 California Plumbing Code (CPC), Part 5, Title 24 C.C.R.

(2016 Uniform Plumbing Code and 2016 California Amendments)

2016 California Energy Code (CEC), Part 6, Title 24 C.C.R.

2016 California Fire code Part 9, Title 24 C.C.R.

(2016 International Fire Code and 2016 California Amendments)

2016 California Green Building Standards Code, Part 11, Title 24 C.C.R.

2016 California Referenced Standards, Part 12, Title 24 C.C.R.

Title 19 C.C.R., Public Safety, State Fire Marshal Regulations

Title 24, Part 1, Public Works, Chapter 1, Department of General Services.

1.05 APPLICABLE REFERENCE STANDARDS

A. Standards referenced in the Specifications are usually referred to by the abbreviation of the organization's name and the designation of the document (e.g., ASTM A 36). Documents in common use may be referred to by their own designation (e.g., the National Electrical Code is published by the National Fire Protection Association as NFPA-70 but is referred to as NEC and is part of a series of documents or standards referred to as the National Fire Code). References are to the latest issue of the publication available on the date stipulated for the receipt of bids.

STANDARDS ORGANIZATIONS:

AA	Aluminum Association					
AAMA	American Architectural Manufacturer's Association					
AASHTO	American Association of State Highway and Transportation Officials					
ACI	American Concrete Institute					
AGA	American Gas Association					
AISC	American Institute of Steel Construction					
AITC	American Institute of Timber Construction					
AMCA	Air Movement and Control Association, Inc.					
ANSI	American National Standards Institute, Inc.					
APA	American Plywood Association					
ARI	Air Conditioning and Refrigeration Institute					
ASHRAE	American Society of Heating, Refrigerating, and Air-Conditioning					
ASTRAE	Engineers					
ASME	American Society of Mechanical Engineers					
ASTM	American Society for Testing and Material					
AWPA	American Wood Preservers' Association					
AWPB	American Wood Preservers' Bureau					
AWS	American Welding Society					
AWWA	American Water Works Association					
BHMA	Builders' Hardware Manufacturers Association					
CBC	California Building Code – Current Edition					
CDA	Copper Development Association					
CEC	California Electric Code – Current Edition (also see NFPA)					
CGA	Compressed Gas Association					
CISPI	Cast Iron Soil Pipe Institute					
CMC	California Mechanical Code – Current Edition (also see IAPMO)					
CNA	Contractors National Association					
CPC	California Plumbing Code – Current Edition (also see IAPMO)					

CPSC	Consumer Product Safety Commission					
CRSI	Concrete Reinforcing Steel Institute					
CSUSDC	Commercial Standard of U.S. Dept. of Commerce					
CSMA	Chemical Specialties Manufacturing Association					
CTI	Ceramic Tile Institute					
FGMA	Flat Glass Marketing Council					
FM	Factory Mutual System					
FS	Federal Specification					
GA	Gypsum Association					
НІ	Hydraulic Institute, Hydraulics Institute					
IAPMO	International Association of Plumbing and Mechanical Officials					
ICBO	International Conference of Building Officials					
IEEE	Institute of Electrical and Electronics Engineers					
IES	Illuminating Engineering Society					
MIL	Military Specifications					
ML/SFA	Metal Lath/Steel Framing Association					
MSS	Manufacturers Standardization Society of the Valve and Fittings					
WISS	Industry					
NAAM	National Association of Architectural Metal Manufacturers					
NBS	National Bureau of Standards					
NEBB	National Environmental Balancing Bureau					
NEMA	National Electric Manufacturers Association					
N FLUID PA	National Fluid Power Association					
NFPA	National Fire Protection Association					
NRCA	National Roofing Contractors Association					
NSF	National Sanitation Foundation					
NWWDA	National Wood Window and Door Association					
PS	Product Standard (of NBS)					
SMACNA	Sheet Metal and Air Conditioning					
SDI	Steel Deck Institute, Steel Door Institute					
SJI	Steel Joist Institute					
SSPC	Steel Structures Painting Council					
TCA	Tile Council of America					
TITLE	Title 24, California Code of Regulations, Part 1 and 2, Current Edition					
UL	Underwriters' Laboratories					
WIC	Woodwork Institute (formerly WIC)					
WLPDIA	Western Lath Plaster Drywall Industries Association					

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION (NOT APPLICABLE)

END OF SECTION

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SECTION 01 4500 QUALITY CONTROL

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Quality assurance and control of installation.
- B. References
- C. Field Samples
- D. Mock-Up
- E. Project Inspector.
- F. Permits and Fees.
- G. Verified Reports.
- H. Manufacturers' field services and reports.

1.02 QUALITY ASSURANCE/CONTROL OF INSTALLATION

- A. Monitor quality control over suppliers, manufacturers, products, services, site conditions and workmanship to produce work of specified quality.
- B. Comply fully with manufacturers' instructions including each step in the sequence.
- C. Should manufacturers' instructions conflict with Contract Documents, request clarification from Architect before proceeding.
- D. Comply with specified standards as a minimum quality for the Work except when more stringent tolerances, codes or specified requirements indicate higher standards or more precise workmanship.
- E. Perform work by persons qualified to produce workmanship of specified quality.
- F. Where experience minimums for workmen, applicators, companies or manufacturers are required in individual sections, written certification and documentation substantiating such minimums shall be submitted and approved by the Architect, when requested.
- G. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion or disfigurement.

1.03 REFERENCES

- A. Conform to reference standard by date of issue current on the date of Contract Documents.
- B. Obtain copies of standards when required by Contract Documents.
- C. Should specified reference standards conflict with Contract Documents, request clarification from the Architect before proceeding.
- D. The contractual relationship of the parties to the Contract shall not be altered from the Contract Documents by mention or inference otherwise in any reference document.

1.04 FIELD SAMPLES

- A. Install field samples at the site as required by individual specifications Sections for review by Architect.
- B. Accepted samples represent a quality level for the Work.

C. Where field sample is specified in individual Sections to be removed, clear area after field sample has been accepted by Architect and is no longer required for reference.

1.05 MOCK-UP

- A. Tests will be performed under provisions identified in this Section
- B. Assemble and erect specified items with specified attachment and anchorage devices, flashing, seals and finishes.
- C. Where mock-up is specified in individual Sections to be removed, clear area after mock-up has been accepted by Architect and is no longer required for reference.

1.06 PROJECT INSPECTOR

- A. An Inspector, herein referred to as the "Inspector of Record" or "IOR", will be employed by the Owner and approved by Office of Regulation Services, Division of State Architect (ORS/DSA) in accordance with Part 1, Title 24, Section 4-333, California Code of Regulations. His duties are described in Part 1, Title 24, Section 4-342, CCR. His duties are also required and defined in Sections 39151, 39153, 81141 and 81143 of the California Education Code as they relate to schools.
- B. The work of construction in all stages of progress shall be subject to the personal continuous observation of the Project Inspector. He shall have free access to any or all part of the work at any time. The Contractor shall furnish the Inspector reasonable facilities for obtaining such information as may be necessary to keep him fully informed respecting the progress and manner of the work and the character of the materials. Inspection of the work shall not relieve the Contractor from any obligation to fulfill this Contract.

1.07 PERMITS AND FEES

- A. Where required by the provisions of individual sections of the Specifications, and where required to carry out construction operations, Contractor shall obtain and pay for permits and fees, including, but not limited to, Demolition, Grading, Disposals, Off-site development permits, Requirements of Water, Gas, Sewer, Flood and Sanitary districts having jurisdiction and Municipal and County Building Departments.
 - 1. Fees for final utility connections shall be paid by the Contractor and reimbursed to the Contractor by the Owner at direct cost.
 - 2. Building permit inspection notice forms or approvals requiring fees issued by the DSA will be obtained and paid for by the Owner.

1.08 VERIFIED REPORTS

A. Contractor shall comply with Part 1, Title 24, Sections 4-336 and 4-343, California Code of Regulations and issue verified reports through the Architect as required.

1.09 MANUFACTURERS' FIELD SERVICES AND REPORTS

- A. When specified in individual specification Sections, require material or Product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, start-up of equipment, test, adjust and balance of equipment and as applicable and to initiate instructions when necessary.
- B. Manufacturers Representatives shall report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.
- C. Submit a report of observation to Architect for review.

PART 3 - EXECUTION (NOT APPLICABLE)

END OF SECTION

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SECTION 01 4523 TESTING LABORATORY AND INSPECTION SERVICES

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes: Cooperate with the Owner's selected testing agency, the Owner's assigned Inspector, and others responsible for testing and inspecting the Work, and assist the Owner by coordinating such testing and inspecting services as specified in this Section and/or elsewhere in the Contract Documents.
- B. Related Work Specified Elsewhere:
 - 1. Requirements for testing may be required in other Sections of these Specifications.
 - Where no testing requirements are specified or required by reference standards or authorities having jurisdiction, the Owner may require such testing to be performed under current pertinent standards for testing. Payment for such testing will be made as described herein.

C. District Provided Services:

- 1. The Owner will select a prequalified independent testing laboratory and an Inspector as approved by the Division of the State Architect.
- 2. The Owner will pay for initial services of the testing laboratory as further described hereinafter.

1.02 QUALITY ASSURANCE

- A. The Owner will select an independent testing laboratory to conduct the tests. Selection of the material required to be tested shall be by the laboratory or the Owner's representative and not by the Contractor.
- B. <u>Qualifications of Testing Laboratory</u>: The testing laboratory shall be qualified to the Owner's acceptance in accordance with ASTM E 329. The testing laboratory shall be qualified by the Division of State Architect in accordance with Interpretation of Regulation No. IR A-15
- C. <u>Codes and Standards</u>: Testing, when required, will be in accordance with pertinent codes and regulations and with selected standards of the American Society for Testing and Materials and other organizations or agencies which publish recognized codes, standards, or tests. Refer to Article 3.04 Required Testing of this Section.

1.03 TEST REPORT DISTRIBUTION

- A. Promptly process and distribute required copies of test reports and related instructions to ensure necessary retesting and/or replacement of materials with the least possible delay in the progress of the Work.
- B. One copy of test reports shall be forwarded to the Division of the State Architect by the testing agency. Such reports shall include tests made, regardless of whether such tests indicate that the material is satisfactory or unsatisfactory. Samples taken but not tested shall also be reported. Records of special sampling operations as required shall also be reported. The reports shall show that the material or materials were sampled and tested in accordance with the requirements of Title 24 and with the approved specifications. Test reports shall show the specified design strength.

TESTING LABORATORY AND INSPECTION SERVICES

They shall also state definitely whether or not the material or materials tested comply with requirements.

C. Each testing agency shall submit to the Division of the State Architect a verified report in duplicate covering tests which are required to be made by that agency during the progress of the project. Such report shall be furnished each time that work on the project is suspended, including tests up to that time, and at the completion of the project.

1.04 PAYMENT FOR TESTING SERVICES

- A. <u>Initial Services</u>: The Owner will pay for initial testing and inspection except as specifically modified hereinafter or as specified otherwise in technical sections, provided the results of inspection indicate compliance with the Contract Documents.
- B. <u>Retesting</u>: When initial tests or inspection indicate noncompliance with the Contract Documents, subsequent retesting or re-inspection occasioned by the noncompliance shall be performed by the same testing laboratory or Inspector and the costs thereof will be deducted by the Owner from the Contract Sum. Retesting and re-inspection will continue until test or inspection results indicate compliance.
- C. <u>Code Compliance Testing</u>: Inspections and tests required by codes or ordinances, or by authorities having jurisdiction and made by a legally constituted authority, shall be the responsibility of and shall be paid for by the Owner, but back charged to the Contractor in case of retesting due to non-compliance.
- D. <u>Specified Inspections and Tests</u>: Tests and inspections specified in the Specifications, directly or by reference, shall be coordinated by the Contractor at his expense and paid for by the Owner unless specifically stated otherwise in a Specification Section. Corrections of non-compliance and test failures shall be paid for by the Owner, but shall be back charged to the Contractor. Reinspection and retesting shall be in accordance with paragraph 1.04-B.
- E. <u>Contractor's Convenience Testing</u>: Inspecting or testing performed exclusively for the Contractor's convenience shall be the sole responsibility of and at the expense of the Contractor.

1.05 INSPECTION BY THE OWNER

- A. The Owner and his representatives will have access, for the purpose of inspection, to parts of the work and to the shops wherein the work is in preparation, and the Contractor shall maintain proper facilities and provide safe access for such inspection.
- B. The Owner shall have the right to reject materials and workmanship which are defective, and to require their correction. Rejected workmanship shall be satisfactorily corrected and rejected materials shall be removed from the premises without charge to the Owner. If the Contractor does not correct such rejected work within a reasonable time, fixed by written notice, the Owner may correct rejected work and charge the expense to the Contractor.
- C. Should it be considered necessary or advisable by the Owner at any time before final acceptance of the entire work to make an examination of work already completed by removing or tearing out the same, the Contractor shall on request promptly furnish necessary facilities, labor and materials. If such work is found to be defective in respect due to fault of the Contractor or his subcontractor, he shall defray expenses of such examinations and of satisfactory reconstruction. If, however, such work is found to meet the requirements of the contract, the additional cost of labor and material necessarily involved in the examination and replacement will be allowed the Contractor.

1.06 OWNER'S INSPECTOR

A. An Inspector employed by the Owner in accordance with the requirements of State of California Code of Regulations, Title 24, Part 1, and qualified in accordance with Office of State Architect

will be assigned to the work. His duties are specifically defined in Title 24, Part 1, Section 4-342, reprinted herein:

"42. Duties of the Inspector"

- 1. <u>General</u>: The inspector shall act under the direction of the Architect or registered Engineer.
- 2. <u>Duties</u>: The general duties of the Inspector in fulfilling his or her responsibilities are as follows:
 - a. <u>Continuous Inspection Requirement</u>: He or she must have actual personal knowledge, obtained by his personal and continuous inspection of the work of construction in stages of its progress, that the requirements of the approved plans and specifications are being completely executed.

Continuous inspection means complete inspection of every part of the work. Work, such as concrete work or brickwork which can be inspected only as it is placed, shall require the constant presence of the Inspector. Other types of work which can be completely inspected after the work is installed may be carried on while the Inspector is not present. In any case, the Inspector must personally inspect every part of the work. In no case shall the Inspector have or assume duties which will prevent him or her from giving continuous inspection.

The project Inspector may obtain personal knowledge of the work of construction, either on-site or off-site, performed under the inspection of a special Inspector or Assistant

Inspector from the reporting of others on testing or inspection of materials and workmanship for compliance with the plans, specifications and applicable standards. The exercise of reasonable diligence to obtain the facts shall be required.

- b. <u>Relations With Architect or Engineer</u>: The Inspector shall work under the general direction of the Architect or registered Engineer. Inconsistencies or seeming errors in the plans and specifications shall be reported promptly to the Architect or registered Engineer for his interpretation and instructions. In no case, however, shall the instruction of the Architect or registered Engineer be construed to cause work to be done which is not in conformity with the approved plans, specifications, and change orders.
- c. <u>Job File</u>: The Inspector shall keep a file of approved plans and specifications (including approved addenda or change orders) on the job, and shall immediately return unapproved documents to the Architect for proper action. The Inspector, as a condition of his employment, shall have and maintain on the job, codes, and documents referred to in the plans and specifications.
- d. <u>Inspector's Semimonthly Reports</u>: The Inspector shall keep the Architect or registered Engineer thoroughly informed as to the progress of the work by making semimonthly reports in writing as required in Section 37.
- e. <u>Notifications to Division of the State Architect</u>: The Inspectors shall notify the Division of the State Architect:
 - (1) When work is started on the project.
 - (2) At least 48 hours in advance of the time when foundation trenches will be complete, ready for footing forms.

- (3) At least 48-hours in advance of the first pour of concrete.
- (4) When work is suspended for a period of more than two weeks.
- f. <u>Construction Procedure Records</u>: The Inspector shall keep a record of certain phases of construction procedure including, but not limited to, the following:
 - (1) <u>Concrete Pouring Operations</u>: The record shall show the time and date of placing concrete and the time and date of removal of forms in each portion of the structure.
 - (2) <u>Welding Operations</u>: The record shall include identification marks of welders, list of defective welds, manner of correction of defects, etc.
 - (3) Penetration under the last ten (10) blows for each pile when piles are driven for foundations.
 - (4) All such records of construction procedure shall be kept on the job until the completion of the work. These records shall be made a part of the permanent school records.
- g. <u>Deviations</u>: The Inspector shall notify the Contractor, in writing, of deviations from the approved plans and specifications which are not immediately corrected by the Contractor when brought to his or her attention. Copies of such notice shall be forwarded immediately to the Architect or registered Engineer.
 - Failure on the part of the Inspector to notify the Contractor of deviations from the approved plans and specifications shall in no way relieve the Contractor of responsibility to complete the work covered by his or her contract in accordance with the approved plans and specifications and laws and regulations.
- h. <u>Verified Report</u>: The project and special Inspectors shall each make and submit to the Division of the State Architect verified reports.
 - The Inspector shall prepare and deliver to the Division of the State Architect detailed statements of fact regarding materials, operations, etc. when requested.
 - (1) <u>Violations</u>: Failure, refusal, or neglect on the part of the Inspector to notify the Contractor of work which does not comply with the requirements of the approved plans and specifications, or failure, refusal, or neglect to report immediately, in writing, such violation to the Architect or registered Engineer, to the School Board, and to the Division of the State Architect shall constitute a violation of the act and shall be cause for the Division of the State Architect to take action.

Note: Authority cited: Section 39152 and 81142, Education Code. Reference: Sections 39151, 39153, 81141 and 81143, Education Code."

- B. The work of construction in stages of progress shall be subject to the personal continuous observation of the Inspector as continuous observation is defined by Title 24. He shall have free access to all parts of the work at any time. The Contractor shall furnish the Inspector reasonable facilities for obtaining such information as may be necessary to keep him fully informed respecting the progress and manner of the work and the character of the materials. Inspection of the work shall not relieve the Contractor from obligation to fulfill this Contract.
- 1.07 OWNER'S OTHER PERSONNEL

A. From time to time, other personnel in the employ of the Owner may inspect the Work when the Work is in progress but shall have no authority to direct the Contractor or request changes in the Work except as may be provided elsewhere in the Contract Documents.

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION

3.01 COOPERATION WITH TESTING LABORATORY AND INSPECTORS

- A. Inspectors and representatives of the testing laboratory shall have access to the work. Provide facilities for such access in order that the testing, inspection, and the obtaining of samples may be done properly.
- B. Contractor shall deliver material specimens to the Owner's testing lab, which must by terms of the Contract be tested prior to inclusion in the Project, at least 45 days prior to scheduled delivery to the job site.
- C. 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 in the job.

3.02 TAKING SPECIMENS

A. Field specimens and samples for testing, unless otherwise provided in these Contract Documents, shall be selected and taken by the testing laboratory or Inspector and not the Contractor. Sampling equipment and personnel will be provided by the testing laboratory. Deliveries of specimens and samples to the testing laboratory will be performed by the testing laboratory.

3.03 SCHEDULES FOR TESTING

A. Establishing Schedule:

- 1. By advance discussion with the testing laboratory selected by the Owner, determine the time required for the laboratory to perform its tests and to issue each of its findings.
- 2. Provide required time within the construction schedule.
- B. <u>Revising Schedule</u>: When changes of construction schedule are necessary during construction, coordinate such changes of schedule with the testing laboratory as required.
- C. <u>Adherence to Schedule</u>: When the testing laboratory is ready to test according to the determined schedules but is prevented from testing or taking specimens due to the incompleteness of the work, extra charges for testing attributable to the delay may be back-charged to the Contractor and will be deducted by the Owner from the Contract Sum.

3.04 REQUIRED TESTING

- A. Tests and inspections for the following items will be required in accordance with referenced Sections/Chapters of California Code of Regulations, Title 24, Part 2. All certified reports required for submittal to the Division of the State Architect (DSA) shall be submitted with a "wet" signature to the Field Office of the Inspector of Record.
 - 1. As required by approved DSA 103 Form / DSA Testing & Inspections Form, approved specifically for this Project. These forms will be made available by request to the Architect.

END OF SECTION

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SECTION 01 5200

CONSTRUCTION FACILITIES AND TEMPORARY **CONTROLS**

PART 1 - GENERAL

SUMMARY 1.01

- A. Section Includes: Construction facilities and temporary controls including:
 - 1. Temporary utilities such as heat, water, electricity, and telephone.
 - 2. Sanitary facilities for construction personnel.
 - 3. Enclosures such as tarpaulins, barricades, and canopies.

PROJECT CONDITIONS

- A. Make required connections to existing utility systems with minimum disruption to services.
- B. When disruption of the existing service is required, do not proceed without the Owner's and Architect's review and, when required, provide alternate temporary service.
- C. Environmental Requirements: Provide and maintain heat, fuel, materials, and services necessary to protect work and materials against injury from extreme heat, cold, dry winds, dust, or dampness as follows:
 - 1. During the placing, setting and curing of concrete and cement work, provide sufficient heat to ensure the heating of spaces involved do not fall to less than 50 degrees Fahrenheit.
 - 2. Suspend operations on work when subject to damage by climatic conditions, flooding, or because of insufficient curing or drying of surfaces or materials.
 - 3. Take necessary action to protect site and Work from wind, flood, and storm damage.

PART 2 - PRODUCTS

GENERAL 2.01

A. General: Construction facilities shall be subject to the Architect's review.

UTILITIES 2.02

A. Water:

- 1. Provide any necessary temporary water lines and water supply and, upon completion of the work, remove temporary facilities.
- 2. Contractor may use District hose bibbs, etc., for construction water, if coordinated with District Inspector and no inconvenience is caused to District staff.

B. Electricity:

- 1. Provide any necessary temporary wiring and, upon completion of the work, remove temporary facility.
- 2. Provide area distribution boxes so located that the individual trades may use 100 feet maximum length extension cords to obtain adequate power and artificial lighting at points where required for the work, for inspection and for safety.

- Contractor may use District outlets if coordinated with District Inspector and no 3. inconvenience is caused to District staff.
- C. Telephone: Contractor shall not use the School District's telephone, but shall provide his own means of communication via cellular phone or other means.
- D. Utilities for Testing: Normal quantities required to make final tests of installed permanent systems shall be furnished at no cost to the Owner.
- E. Security: Provide temporary fencing as may be required to secure construction areas.

FIELD OFFICES AND STORAGE LOCATIONS 2.03

- A. Provide a Field Office as the Contractor deems necessary for proper operation of the Contractor's work.
 - The Contractor's Field Personnel shall at all times have access to telephone and email. 1.

2.04 PROJECT SIGNS

- Allow no other signs on the site except as specifically accepted by the Architect. A.
- В. Location of signs shall be as directed by the Architect.

PART 3 - EXECUTION

3.01 MAINTENANCE AND REMOVAL

- Maintain facilities and temporary controls as long as needed for the safe and proper completion of A. the work.
- В. Remove such construction facilities and temporary controls as rapidly as progress of the work will permit, or as directed by the Architect.

END OF SECTION

SECTION 01 6200 PRODUCT OPTIONS AND SUBSTITUTIONS

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes: General requirements for the proposal of substitutions.

1.02 MATERIAL

- A. Equipment, materials, and articles incorporated into the work shall be new and suitable for the purposes intended.
- B. Reference to equipment, material, article, or patented process by trade name or catalog number shall not be construed as limiting competition.
 - 1. In cases where the Specifications designate a material, product, thing, or service by specific proprietary brand or trade name, and there is only one brand or trade name listed, the item involved is:
 - a. Used as a standard of quality which must be satisfied without compromise, or
 - b. The only brand or trade name known to the Owner and Architect.
 - 2. Wherever in the Contract Documents a material, article, or process is indicated or specified by trade, patent, proprietary name, or the name of manufacturer, such indication shall be deemed to be followed by the words, "or equivalent, as accepted in writing by the Architect".
 - 3. If the phrase "NO SUBSTITUTIONS" is used, the product is required to be used since it is a unique product application or it has been deemed a District standard via School Board resolution.
- C. The naming of more than one manufacturer in a Section does not imply that all products of named manufacturers are acceptable for use on the Project. Where more than one proprietary name is specified, provide materials or equipment of any one of the manufacturers specified, only if full compliance with other portions of the Specifications can be provided.
- D. Construction shall be in compliance with the cited standards for the materials specified.

1.03 SUBSTITUTIONS:

- A. Should the TRADE CONTRACTOR wish to substitute an item purported to be equal to the one specified, then the CONTRACTOR shall, no later than 5 days after Notice to Proceed furnish to the Architect the name of the manufacturer, model number, and other pertinent data and information respecting the "or equivalent" item which has been proposed in the bid and which the Contractor contemplates incorporating in the work. If the "or equivalent" item is not found by the Architect to be, in fact, equivalent or better, then the item specified in the Contract Documents shall be furnished.
- B. When required by the Contract Documents, or when directed by the Owner, furnish full information concerning the material or article proposed for incorporation into the work. Testing of a proposed substitute material to assure compliance with the Specifications may be required by the Owner at the Contractor's expense. When so directed, submit samples for acceptance. Equipment, material, and articles installed or used without required acceptance shall be at the risk of subsequent rejection.

- C. Substitutions shall comply with, or exceed, requirements of dimension, function, structure, durability, and appearance without exception. Use of accepted substitutions shall in no way relieve the Contractor from responsibility for compliance with the Contract Documents after installation. It shall be incumbent upon the Contractor using accepted substitutions to assume extra costs caused by the use of such substitutions where they affect other work.
- D. Do not substitute materials, equipment, or methods unless such substitution has been reviewed and approved by the Architect. **Deferred approval items shall be submitted to the Division of the State Architect for approval prior to acceptance by Architect**.
- E. "Or Equivalent": Where the phrase "or equivalent", "or approved equivalent", or "or equivalent as approved by the Architect" occurs in the Contract Documents, do not assume that materials, equipment, or methods will be accepted as equal unless the item has been specifically accepted, in writing, for the Work by the Architect and by the Division of the State Architect for items which "affect health, safety or welfare."
- F. Failure to place orders for specified equipment or material sufficiently in advance of the scheduled installation date will not be considered a valid reason upon which the Contractor may base his request for substitutions or for deviations from the Drawings and Specifications.
- G. In the event the CONTRACTOR requests changes or revisions requiring drawings or services of the Architect or his consultants, to facilitate installation or erection of any portion of the work, the CONTRACTOR shall accept the responsibility to hire and pay for the Architect's or Consultant's services. A standard hourly rate, as agreed upon, shall be paid by the CONTRACTOR whether the change is accepted or rejected. In the event the change is approved, this fee shall be deducted, and paid, from the Contract Sum.
- H. Redesigning by the CONTRACTOR: Redesigning shall be by an Engineer licensed, in the State of California, to perform such work. In the event approval is required from authorities having jurisdiction, such approval shall be obtained by the CONTRACTOR at his expense before submitting the revised design or substitution to the Architect.
- I. Revision After Approval: When a submittal has been reviewed by the Architect, resubmittal for substitution of materials or equipment will not be considered unless accompanied by an explanation acceptable to the Architect as to the reason substitution is considered necessary. Changes in Plans and Specifications shall be made by Addenda or Change Orders approved by the Division of the State Architect, as required by the California Administrative Code Section 4-338.

1.04 SUBSTITUTION REQUEST FORM:

A. Submittal of the requested information shall be accompanied by the attached Substitution Request Form. Submit six copies of each request to the Architect. The architect will distribute as appropriate.

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION (NOT APPLICABLE)

END OF SECTION

(ATTACHMENT: SUBSTITUTION REQUEST FORM)

SUBSTITUTION REQUEST FORM

VALLECITOS SCHOOL DISTRICT

TO:

PROJECT: \	VALLEC	ITOS ES 2019 KITC	HEN UPGRADES		
SPECIFIED I	TEM:				
		Section	Page	Paragraph	Description
The undersign	ned reques	ets consideration of the	following:		
PROPOSED	SUBSTIT	UTION			
		est data adequate for e	luct description, specifica evaluation of the requests;		
SUBMITTE	D BY CO	NTRACTOR:			
		hed data also includes itution will require for	a description of changes proper installation.	to Contract Documen	nts which proposed
The undersign	ned states	that the following para	ngraphs unless modified o	n attachments, are co	rrect:
	The p	proposed substitution d	oes not affect dimensions	shown on Drawings.	
			or changes to the building costs caused by the reques		ineering design,
By:			Date:		
Signature:			Telephone:		
Firm Name:					
Address:					
Attachments:					
Remarks:					

The proposed substitution will have no adverse effect on other work, directly related or otherwise, the construction schedule, or specified warranty requirements.

Maintenance and service parts will be locally available for the proposed substitution.

The undersigned further states that the function, appearance, and quality of the proposed substitution are equivalent or superior to the specified item.

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SECTION 01 6600 MATERIAL AND EQUIPMENT

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes: General requirements for delivery, storage, and handling of materials and equipment applicable to the product sections of this specification and necessary for the construction of the Project.
- B. Related Sections:
 - 1. Section 01 3300 Submittals
 - 2. Section 01 6200 Product Options and Substitutions

1.02 GENERAL

- A. <u>Material and Equipment Incorporated into the Work:</u>
 - 1. Conform to applicable specification and standards.
 - 2. Comply with size, make, type, and quality specified.
- B. <u>Manufactured and Fabricated Products</u>:
 - 1. Design, fabricate and assemble in accordance with the best engineering and shop practices.
 - 2. Manufacture like parts of duplicate units to standard sizes and gages for interchangeability.
 - 3. Two or more items of the same kind shall be identical, by the same manufacturer.
- C. <u>Reused Materials</u>: Where the contract documents indicate that existing materials may be reused, such materials must be of like-new sound condition when reincorporated in the work.
 - 1. Metals must be free of rust, corrosion, and dents, and must be restored to a like-new finish by cleaning, polishing or refinishing, whichever is appropriate.
 - 2. Materials to be reused shall be approved for reuse by the Inspector.
- D. Supplementary materials not specifically described in each Section, but required for a complete and proper installation of the Work, shall be new, first quality of their respective kinds, and subject to review and acceptance by the District.

1.03 DELIVERY

- A. Arrange deliveries of products in accordance with construction schedules and in ample time to facilitate inspection prior to installation.
- B. Coordinate deliveries to avoid conflict with work and conditions at the site, taking into consideration:
 - 1. Work of the TRADE CONTRACTORS, or OWNER.
 - 2. Limitations of storage space.
 - 3. Availability of equipment and personnel for handling products.
 - 4. Owner's use of premises.

- C. Deliver products in undamaged condition in original containers or packaging, and with identifying labels intact and legible.
- D. Partial deliveries of component parts of equipment shall be clearly marked to identify the equipment, to permit the easy accumulation of parts, and to facilitate assembly.
- E. Immediately on delivery, inspect shipment to ensure:
 - 1. Product complies with requirements of Contract Documents and reviewed submittals.
 - 2. Quantities are correct.
 - 3. Containers and packages are intact and labels are legible.
 - 4. Products are undamaged and properly protected.
- F. The District reserves the right to observe delivered materials, to review the accompanying bills of lading, and to reject the following:
 - 1. Materials not identifiable as accepted products of the accepted manufacturer.
 - 2. Materials exhibiting shelf-lives in excess of those stipulated by the manufacturer.
 - 3. Materials not bearing the appropriate label of Underwriters Laboratories (UL), where applicable.
 - 4. Materials in opened or excessively damaged containers.
 - 5. Materials exhibiting evidence of moisture, organic matter, or other adulterants.
- G. In the event of damage or rejection by the District for stipulated cause, immediately make repairs and replacements necessary to the acceptance of the Architect and at no additional cost to the Owner.

1.04 STORAGE

- A. No payment will be made by the Owner for materials stored off-site, until such time as the materials are incorporated into the work.
- B. Store products immediately on delivery, store in accordance with manufacturer's instructions and as further required by the Owner's Storm Water Pollution Prevention Plan (SWPPP, see Section 31 2500), and protect until installed in the Work.
- C. Store products subject to damage by elements in weather-tight enclosures.
 - 1. Maintain temperatures within limits recommended by manufacturer's instructions.
 - 2. Provide humidity control for sensitive products, as required by the manufacturer.
 - 3. Store unpacked products in a manner accessible for inspection.
- D. Exterior Storage:
 - 1. Provide substantial platforms, blocking, or skids to support fabricated products above ground and prevent soiling or staining.
 - a. Cover products subject to discoloration or deterioration from exposure to the elements, with impervious sheet coverings. Provide adequate ventilation to avoid condensation.
 - 2. Store loose granular materials on solid paved surfaces, or provide plywood platforms to prevent mixing with foreign matter.
 - a. Provide surface drainage to prevent flow or ponding of rainwater.
 - b. Prevent mixing of refuse or chemically injurious materials or liquids.

1.05 MAINTENANCE OF STORAGE

- A. Maintain a periodic system of inspection of stored products on a scheduled basis to assure that:
 - 1. State of storage facilities is adequate to provide the required conditions.
 - 2. Required environmental conditions are maintained on a continuing basis.
 - 3. Surfaces of products exposed to elements are not adversely affected.
- B. Mechanical and electrical equipment which requires servicing during long term storage shall have complete manufacturer's instructions for servicing accompanying each item, with notice of enclosed instructions shown on the exterior of the package.

1.06 PROTECTION AFTER INSTALLATION

- A. Provide protection of installed products to prevent damage from subsequent operations. Remove protection materials when no longer needed, prior to completion of work.
- B. Control traffic to prevent damage to equipment and surfaces.

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION (NOT APPLICABLE)

END OF SECTION

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SECTION 01 7423 CLEANING

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes: Cleaning throughout the construction period.
- B. Related Work Described Elsewhere: In addition to standards specified herein, comply with requirements for cleaning up as described in other section of these Specifications.

1.02 QUALITY ASSURANCE

- A. <u>Inspection</u>: Conduct daily inspection, and more often if necessary, to verify that requirements of cleanliness are being met.
- B. <u>Codes and Standards</u>: In addition to the requirements specified herein, comply with pertinent requirements of authorities having jurisdiction.
- C. For final cleaning, use only a professional cleaning company experienced in commercial cleaning.

1.03 PAYMENT WITHHELD

A. The Architect reserves the right to withhold certification of payment requests for failure on the part of the CONTRACTOR to regularly clean the Project in conformance with the Requirements of this Section.

PART 2 - PRODUCTS

2.01 CLEANING MATERIALS AND EQUIPMENT

A. Provide the required personnel, equipment, and materials needed to maintain the specified standard of cleanliness.

2.02 COMPATIBILITY

A. Use cleaning materials and equipment which are compatible with the surfaces being cleaned, as recommended by the manufacturer of the material to be cleaned.

PART 3 - EXECUTION

3.01 PROGRESS CLEANING

A. General:

- 1. Retain stored items in an orderly arrangement allowing maximum access, not impeding drainage or traffic, and providing the required protection of materials.
- 2. Do not allow the accumulation of scrap, debris, waste material, and other items not required for construction of this work.
- 3. At least twice each month, and more often if necessary, remove scrap, debris, and waste material from the job site.
- 4. Provide adequate storage for items awaiting removal from the job site, observing requirements for fire protection and protection of the ecology.

B. Site:

1. Daily, and more often if necessary, inspect the site and pick up all scrap, debris, and waste material. Remove items to the place designated for their storage. Combustible

waste shall be removed from the site. Flammable waste shall be kept in sealed metal containers until removed from the site.

- 2. Weekly, and more often if necessary, inspect, arrangements of materials stored on the site; restack, tidy, or otherwise service arrangements to meet the requirements specified above.
- 3. Maintain the site in a neat and orderly condition.

C. Structures:

- 1. Weekly, and more often if necessary, inspect the structures and pick up scrap, debris, and waste material. Remove items to the place designated for their storage.
- 2. Weekly, and more often if necessary, sweep interior spaces clean.
 - a. "Clean", for the purpose of this subparagraph, shall be interpreted as meaning free from dust and other material capable of being removed by use of reasonable effort and a handheld broom, i.e., "broom-clean".
- 3. As required preparatory to installation of succeeding materials, clean the structures of pertinent portions thereof to the degree of cleanliness recommended by the manufacturer of the succeeding material, using equipment and materials required to achieve the required cleanliness.
- 4. Following the installation of finish floor materials, clean the finish floor daily, and more often if necessary, and while work is being performed in the space in which finish materials have been installed.
 - a. "Clean", for the purpose of this subparagraph, shall be interpreted as meaning free from foreign material which, in the opinion of the Architect, may be injurious to the finish floor material, i.e., "vacuum clean".

3.02 FINAL CLEANING

- A. <u>Definition</u>: Except as otherwise specifically provided, "clean", for the purpose of the Article, shall be interpreted as meaning the level of cleanliness generally provided by skilled cleaners using commercial quality building maintenance equipment and materials, i.e., "scrub and polish clean".
- B. <u>General</u>: Prior to completion of the work, remove from the job site all tools, surplus materials, equipment, scrap, debris, and waste, conduct final progress cleaning as described above.
- C. <u>Site</u>: Unless otherwise specifically directed by the Architect, water and broom clean paved areas on the site and public paved areas directly adjacent to the site. Remove resultant debris.

D. Structures:

- Exterior: In areas affected by the work under this contract, visually inspect exterior surfaces and remove traces of soil, waste material, smudges, and other foreign matter. Remove traces of splashed material from adjacent surfaces. If necessary to achieve a uniform degree of exterior cleanliness, hose down the exterior of the structure. In the event of stubborn stains not removable with water, the Architect may require light sandblasting or other cleaning at no additional cost to the Owner.
- 2. <u>Interior</u>: In areas affected by the work under this contract, visually inspect interior surfaces and remove traces of soil waste material, smudges, and other foreign matter. Remove traces of splashed materials from adjacent surfaces. Remove paint drippings, spots, stains, and dirt from finished surfaces. Use only the cleaning materials and equipment instructed by the manufacturer of the surface material.

- 3. <u>Glass</u>: Clean glass inside and outside.
- 4. <u>Polished surfaces</u>: On surfaces requiring the routine application of buffed polish, apply the polish recommended by the manufacturer of the material being polished. Glossy surfaces shall be cleaned and shined as intended by the manufacturer.
- 5. <u>Carpet</u>: Use only dry-chemical method of cleaning. Steam cleaning or water-based cleaning shall not be used on carpet. Use only dry-chemical materials and methods fully approved by the carpet manufacturer, as instructed in the manufacturer's published literature.
- E. <u>Timing</u>: Schedule final cleaning as accepted by the Architect to enable the Owner to accept a completely clean project.

3.03 CLEANING DURING OWNER'S OCCUPANCY

A. Should the Owner occupy the work or any portion thereof prior to its completion by the Contractor and acceptance by the Owner, responsibilities for interim and final cleaning of the occupied spaces shall be determined by the Architect in accordance with the General Conditions of the Contract.

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SECTION 01 7700 CONTRACT CLOSEOUT

PART 1 - GENERAL

1.01 SUMMARY

- A. <u>Section Includes</u>: Operations and submittals required to establish Substantial Completions, Project Acceptance, and filing of Notice of Completion.
- B. Contract Completion Date is the day established by the Agreement, the Special Conditions, and the Notice to Proceed as the calendar date by which all Work must be completed in accordance with the Contract Documents. Once established, the Contract Completion Date can only be altered by Change Order. If Work is not complete in accordance with the Contract Documents by the Contract Completion Date, Contractor is obligated to pay liquidated damages to the Owner in accordance with the terms of the Contract.
- C. <u>Substantial Completion</u>: The Date of Substantial Completion is the date on which the Architect certifies to the Owner that construction is sufficiently complete, in accordance with the Contract Documents, that the District may occupy the Project for the use intended, and all agencies and authorities have provided written acceptance of the portions of the Work over which they have jurisdiction.
- D. <u>Project Acceptance</u>: The District will accept completion of the Contract after the entire Work shall have been completed to the satisfaction of the District and after issuance of the Certificate of Substantial Completion. The Work may only be accepted as complete by formal action of the Governing Board of the School District. Acceptance of the Project by the Governing Board establishes the formal and official Completion Date for the Project, to be compared against the Contract Completion Date. Project Acceptance must occur prior to Contract Completion Date to preclude assessment of liquidated damages.
- E. <u>Notice of Completion</u>: The date of record for the Notice of Completion shall be the date stamped on the Notice by the County Recorder at the time the County Recorder registers the Notice (note: this is normally not the same date as the date the Owner actually files the Notice of Completion with the Recorder's office).

1.02 CLOSEOUT SCHEDULE AND PROCEDURE

- A. Requirements preparatory to project acceptance:
 - 1. Contractor shall deliver certifications to Architect that no new materials containing asbestos have been included in the work.
 - 2. Temporary facilities shall be removed from the site as specified in Section 01 5200, Construction Facilities and Temporary Controls, except that under no circumstances shall Owner's and Contractor's trailers, furnishings, temporary utilities to trailers and services of on-site secretary be removed from the site until acceptance of the Project by the Owner's Governing Board.
 - 3. The entire site shall be thoroughly cleaned of all construction debris.
 - 4. Record drawings shall be completed, signed by Contractor and Inspector and submitted to Architect as specified in Section 01 7839 Project Record Documents.
 - 5. Guarantees and warranties shall be submitted to Architect as specified in the General Conditions and Section 01 7836 Warranties, Guaranties, and Bonds.

6. Contractor's Final Verified Report (Form SSS-6C) and other Reports and Affidavits required by the Division of the State Architect shall be submitted.

B. Procedure for Project Acceptance:

- 1. Contractor shall complete all Work as required by the Contract Documents, to the best standards of the industry and the trades involved. It shall be the Contractor's responsibility to provide a new, complete, properly operating, professionally finished, detailed, cleaned, high-quality project. There shall be no loose, untrue, or ill-fitting materials, unsightly gaps, voids, or holes, misalignments, misjudgments, shoddy workmanship, or damaged, missing, inoperable, or incomplete work. Work shall be free of smudges, spots, stains, dirt, nicks, tears, cracks, scratches, paint runs, flaws, oversprays, and all other unsightly blemishes.
- 2. Completion lists and correction lists for items described in the paragraph above, as opposed to short lists of a few minor corrective items that may have inadvertently been missed by the Contractor, shall be the responsibility of the Contractor, and not the Architect, Inspector, or District. By entering into this Contract, Contractor agrees that quality control is the responsibility of the Contractor. "Punch" list generated by the Architect is under no circumstances to be considered a vehicle to compel subcontractors to complete contract work.
- 3. Contractor shall prepare a comprehensive and complete list of corrective items for himself and his subcontractors and shall verify that these items have been corrected prior to notifying the Architect of completion. Copies of the Contractor's list(s) shall be made available to the Architect and Inspector upon request.
- 4. Contractor shall notify the Architect in writing when Contractor, with concurrence of Inspector, feels the project is one hundred percent complete and is ready to leave the Project. Architect shall then commence the construction review and prepare a "Punch List", or list of minor corrective items to be issued to Contractor. For convenience, reviews may be phased for various portions of the work, as each distinct portion becomes one hundred percent complete.
- 5. Architect will arrange for Engineering Consultants to make their construction reviews, to be completed before Architect will make his construction review. Contractor and his principal superintendent, authorized to act in behalf of the Contractor, as well as principal subcontractors that the Architect may request to be present, shall accompany the Architect/Engineers during the construction reviews.
- 6. Excessive amounts of corrective ("punch list") items, as judged by the Architect, shall be grounds to terminate the construction review until such time as the Contractor is deemed sufficiently complete to once again start the review. As a very rough rule of thumb, more than four minor items per typical room will be considered excessive.
- 7. If Owner elects to occupy the Project after the Contract Completion Date, but before the Contractor has completed the Work, Architect must make a comprehensive construction review prior to Owner's occupancy. Contractor shall reimburse Architect and Engineers for their time in conducting such review, and for the time of their clerical staffs in preparing the review documents, at the Architect's/Engineer's standard hourly rates for extra services. Contractor will be billed at the time of Contractor's Application for Payment. Payments to the Architect not received within 30 days will be deducted from subsequent Contractor's Applications for Payment in accordance with the General Conditions.

- 8. After completion of "Punch List" work, Contractor shall notify Architect in writing to perform an acceptance tour. Notice shall be issued at least seven (7) days in advance of the time the acceptance tour is to be performed.
- Contractor and his principal superintendent, authorized to act in behalf of Contractor, as well as principal subcontractors that Architect may request to be present, shall accompany Architect and Inspector on acceptance tour.
 - a. If work has been completed in accordance with Contract Documents, and no further corrective measures are required, Architect will issue a Certificate of Substantial Completion and recommend that Owner accept Project and file Notice of Completion.
 - b. If work is judged to be substantially completed in accordance with Contract Documents, and only a few corrective measures are required, Architect will issue a Certificate of Substantial Completion and recommend that Owner conditionally accept Project and file Notice of Completion.
 - c. Owner will conditionally accept the Project only after Contractor provides Owner with Cashier's Check(s) for twice the agreed estimated cost to accomplish the corrective measures, to assure that Owner will have sufficient funds to accomplish work by others should Contractor not complete corrective measures in a reasonable amount of time (refer to General Conditions Article 59 and Article 61). Along with the Cashier Check(s), Contractor shall issue a written notice of intent to complete the corrective measures by a specific named date agreed to by District.
- 10. If work has not been substantially completed in accordance with Contract Documents, and several or many corrective measures are still required, Architect will recommend that Owner not accept the project and not file Notice of Completion. Instead, based on information gathered from acceptance tour, Contractor will be required to complete corrective measures and then call for another project acceptance tour following the procedure outlined above. Contractor will compensate Architect and Inspector for additional acceptance tour and deduct amount paid from final payment to Contractor.
- 11. After Substantial Completion, Contractor shall issue an Application for Payment in accordance with Specification Section 01 2900 Applications for Payment, Part 1.03, H. All administrative actions and submittals, including conditions, outlined therein outlined must be complete prior to Owner's release of payment, and must be completed prior to agendizing for project acceptance by the OWNER'S GOVERNING BOARD.
- 12. Upon Contractor completing all administrative actions and submittals, and meeting all conditions, Owner will agendize acceptance of the Work for the next official meeting of the Governing Board. Official action by the Governing Board shall constitute Project Acceptance. Upon acceptance, Contractor shall immediately remove trailers and other remaining temporary facilities.
- 13. District shall file Notice of Completion with the County Recorder as soon as practicable following Project Acceptance. The date of record for the Notice of Completion shall be the date stamped on the Notice by the Recorder at the time the County Recorder registers the Notice.
- 14. The date stamped on the Notice of Completion by the County Recorder shall be the date for commencement of all warranties and guarantees, and the date the Owner becomes responsible for security, maintenance, heating and cooling, utilities,

damage to the work (unless done by Contractor's forces working on corrective items), and insurance.

Contractor shall remain responsible for these items prior to this date.

The Owner will inform the Contractor by letter immediately after receiving confirmation in writing from the Recorder's office of registration of the Notice of Completion. Contractor is hereby notified that the process of registering, stamping, and receipt of confirmation from the County has been known to take as much as four weeks from the time of filing.

15. Upon acceptance of Project by Owner, Contractor shall submit his request for final payment in accordance with Specification Section 01 2900 - Applications for Payment, Part 1.03, I. Payment of retention will not be made by Owner until 35 days after Notice of Completion has been registered by the County Recorder.

In addition, retention payment will not be made until Contractor has filed the required Form SSS 6 with Division of the State Architect, with a copy to the Architect.

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION (NOT APPLICABLE)

SECTION 01 7823 OPERATING AND MAINTENANCE DATA

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Compilation of product data and related information appropriate for Owner's maintenance and operation of products and equipment furnished under the Contract.
 - 2. Instruction of Owner's personnel in the maintenance of products and in the operation of equipment and systems.

1.02 SUBMITTAL PROCEDURES

- A. <u>Initial</u>: Prior to the first Pay Application, submit a blank, tabbed binder in the proper format for review by Architect. The approved binder will be returned for the collection of information during the course of construction.
- B. <u>Preliminary</u>: Submit one copy of proposed manuals to Architect at least 15 days prior to final inspection or acceptance.
- C. <u>Final</u>: Following the indoctrination and instruction of the Owner's operating and maintenance personnel, review proposed revisions to the manual with the Architect.
 - Submit three copies as a standard, unless technical specifications require a greater number, of accepted data in final form 10 days after final inspection. Approval of submittal is a pre-requisite at Substantial Completion prior to Owner's agendizing project for acceptance by the Governing Board.
 - 2. Record video of each indoctrination and instruction session (in-services) and submit three (3) copies of each trade. Videotapes shall be on individual flash drives in digital format.

PART 2 - PRODUCTS

2.01 FORMAT

- A. Size: Minimum 4-inch three-ring binders for 8-1/2-inch by 11-inch punched pages, completely clear plastic covered for insertion of labels on spines and covers. Submit two hard copies and one digital copy on a flash drive.
- B. Provide identifying tabbed pages. Classify by Division and by Section. All tabbing shall be in numerical order.
- C. Drawings:
 - 1. Provide reinforced punched binder tab. Bind drawings with text.
 - 2. Fanfold larger drawings to the size of text pages, for easy foldout.
- D. Cover: Identify each volume with typed or printed label, List:
 - 1. Title of Project
 - 2. Identity of separate structures as applicable.
 - 3. Identity of general subject matter covered in the manual.

- E. Spine: Identify each volume with a typed or printed label stating OPERATING AND MAINTENANCE INSTRUCTIONS, GUARANTEES AND SERVICE CONTRACTS and the following information:
 - 1. Title of Project.
 - 2. Divisions and Sections included within the volume.
 - 3. Volume number (i.e. "1 of 4")

PART 3 - EXECUTION

3.01 CONTENT OF MANUAL

- A. Table of Contents:
 - 1. List of each product indexed to the content of the volume.
 - 2. List with each product the name, address, and the telephone number of:
 - a. Subcontractor and installer.
 - b. Maintenance contractor, as appropriate.
 - c. Local sources of supply for parts and replacement.
- B. Product Data: Annotate each sheet to clearly identify the data applicable to the installation. Delete references to inapplicable information.
- C. Drawings;
 - 1. Supplement product data with Drawings as necessary to illustrate the following:
 - a. Relationship of component parts of equipment and systems.
 - b. Control and flow diagrams.
 - 2. Do not include Project Record Drawings as maintenance drawings.
- D. Instructions: Provide written text, as required to supplement product data for the particular installation.
- E. Warranties, Guaranties, Bonds, and Service Contracts: Include a copy of each warranty, guaranty, bond, and service contract issued.
 - 1. Provide information sheet for Owner's personnel describing the following:
 - a. Proper procedures in the event of failure or emergencies.
 - b. Circumstances under which the validity of warranties, guarantees, or bonds might be compromised.

3.02 MANUAL FOR MATERIALS AND FINISHES

- A. Instructions for Care and Maintenance: Include manufacturer's data as follows:
 - 1. Recommendations for types of cleaning agents and methods.
 - 2. Cautions against cleaning agents and methods which are detrimental to the product:
 - 3. The recommended schedule for cleaning and maintenance.
- B. Energy Conservation Features:
 - 1. Provide a list of energy conservation features, materials, components, and mechanical devices installed in the building.

3.03 MANUAL FOR EQUIPMENT AND SYSTEMS

- A. Content, for each unit of mechanical equipment and system, as appropriate.
 - 1. Description of unit and component parts:
 - a. Function, normal operating characteristics, and limiting conditions.
 - b. Performance curves, engineering data, and tests.
 - c. Complete nomenclature and commercial number of replaceable parts.
 - 2. Operating Procedures:
 - a. Start-up, break-in, routine, and normal operating instructions.
 - b. Regulation, control, stopping, shutdown, and emergency instructions.
 - c. Summer and winter operating instructions.
 - 3. Maintenance Procedures:
 - a. Routine operations.
 - b. Guide to "troubleshooting."
 - c. Disassembly, repair, and reassembly.
 - d. Alignment, adjusting, and checking.
 - 4. Servicing and lubrication schedule including a list of lubricants required.
 - 5. Manufacturer's printed operating and maintenance instructions.
 - 6. Description of the sequence of operation by control manufacturer.
 - 7. Original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance, including:
 - a. Predicted life of parts subject to wear.
 - b. Items recommended being stocked as spare parts.
 - 8. Control diagrams by the manufacturer of controls as installed in the project.
 - 9. Coordination drawings and color-coded piping diagrams.
 - 10. Charts of valve tag numbers, with the location and function of each valve.
- B. Content, for each electric and electronic system as appropriate:
 - 1. Description of system and component parts:
 - a. Function, normal operating characteristics, and limiting conditions.
 - b. Performance curves, engineering data, and tests.
 - c. Complete nomenclature and commercial number of replaceable parts.
 - 2. Circuit directories of panelboards:
 - a. Electrical service.
 - b. Controls.
 - c. Communications.
 - 3. As-installed color-coded wiring diagrams.
 - 4. Operating procedures:
 - a. Routine and normal operating instructions.

- b. Sequences required.
- c. Special operating instructions.
- 5. Maintenance procedures:
 - a. Routine operations.
 - b. Guide to "troubleshooting."
 - c. Disassembly, repair, and reassembly.
 - d. Adjustment and checking.
- 6. Manufacturer's printed operating and maintenance instructions.
- 7. List of original manufacturer's spare parts, manufacturer's current prices, and recommended quantities to be maintained in storage.

3.04 INSTRUCTION OF OWNER'S PERSONNEL

- A. Prior to final inspection or acceptance, fully instruct Owner's designated operating and maintenance personnel in the operation, adjustment, and maintenance of all products, equipment, and systems installed in the project.
 - 1. Provide services of factory trained instructors from the manufacturer of each major item of equipment or system.
 - 2. Provide for each instruction session or "in-service", a camcorder operator and VHS camcorder to videotape the session. Videotapes shall be clearly labeled as to project, subject, and date. Submit tapes in triplicate.
- B. Operating and maintenance manual shall constitute the basis of instruction.
 - 1. Review contents of manual with personnel in full detail to explain all aspects of operation and maintenance.
 - 2. Review instructions on how to efficiently use state required energy conservation features, materials, components, and mechanical devices.

SECTION 01 7836 WARRANTIES, GUARANTIES, AND BONDS

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes: General requirements for written warranties, guarantees, and bonds required by the Contract Documents.
- B. Referenced Sections:
 - 1. Section 01 7700 Contract Closeout: Submittal of warranties, guarantees, and bonds as a condition of project acceptance and payment.
 - 2. Section 01 7823 Operating and Maintenance Data: Incorporation of warranties, guarantees, and bonds into instruction manuals.
- C. Approval of the warranties, guarantees, and bonds by the Owner is a prerequisite to payment at Substantial Completion and agendizing for acceptance by the Governing Board of the Owner.

1.02 TIME PERIOD

A. Deliver manufacturer's warranties, guarantees, and bonds required by Contract Documents, with Owner named as beneficiary. Where the manufacturer's warranty or guaranty extends for a longer time period than the Contractor's warranty and guaranty, deliver the manufacturer's warranties or guarantees in the same manner.

1.03 WARRANTY/GUARANTY FORM

- A. Submit written warranties and guarantees, except manufacturer's standard printed warranties and guarantees, on the Contractor's, subcontractors', material suppliers', or manufacturers' own letterhead, addressed to Owner, in the form found in "Required contract Forms."
- B. Submit warranties and guarantees **in duplicate**, and in the for indicated, signed by cognizant entities, and by Contractor in every case, with modifications as approved by Owner to suit the conditions pertaining to the warranty or guaranty.

1.04 SUBMITTAL

- A. Collect and assemble written warranties and guarantees into bound booklet form, and deliver bound books to Architect for delivery to Owner for final review and approval.
 - 1. See Sections 01 7700 and 01 7823 for additional submittal requirements.

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION (NOT APPLICABLE)

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SECTION 01 7839 PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes: Requirements for Record Documents.
- B. Throughout the progress of the work of the contract, maintain an accurate record of changes in the Contract Documents, as described below.
- C. The purpose of the record documents is to provide factual information regarding the work, both concealed and visible, which will enable future modification of design to proceed without lengthy and expensive site measurement, investigation, and examination.

1.02 QUALITY ASSURANCE

- A. <u>General</u>: Delegate the responsibility for maintenance of Record Documents to one person on the Contractor's staff, to be designated as the Record Documents Recorder, as accepted in advance by the Architect.
- B. <u>Accuracy of Records</u>: Thoroughly coordinate changes within the Record Documents, making adequate and proper entries on each page of Specifications and each sheet of drawings and other documents where such entry is required to properly show the change including as-built locations of site utilities shown on the Drawings in a diagrammatic way and progress photos. Accuracy of records shall be such that future search for items shown in the Contract Documents may reasonably rely on information obtained from the accepted Record Documents.
- C. <u>Timing of entries</u>: Make entries onto a Job Set, as described below, within 24 hours after receipt of information. Make entries onto a Record Documents Set, as described below, at least weekly.
- D. The Record Documents will be reviewed by the Architect, Owner's Inspector, and Owner at the regular weekly job meetings. Review will be a regular agenda item.

1.03 PAYMENT WITHHELD

A. The Architect reserves the right to withhold certification of payment requests for failure on the part of the Contractor to maintain Record Drawings in conformance with this Section.

1.04 SUBMITTALS

- A. General: The Architect's review and approval of the current status of Record Documents will be a prerequisite to the Architect's review of requests for progress payment and request for final payment under the contract.
- B. Progress Submittals: Prior to submitting each request for progress payment, secure the Architect's review of the Record Documents as currently maintained.
- C. Final Submittal: Prior to submitting a request for final payment, submit the final Record Documents to the Architect and secure his acceptance.

1.05 PRODUCT HANDLING

A. The Record Documents shall be maintained in the Owner's job trailer, in a secure place designated for such. The Record Documents shall be protected from deterioration and from loss and damage until completion of the work.

B. In the event of loss of recorded data, use means necessary to again secure the data to the Architect's acceptance; such means shall include, if necessary in the opinion of the Architect, removal, and replacement of concealing materials and, in such case, replacements shall be to the standards originally specified in the Contract Documents.

PART 2 - PRODUCTS

2.01 RECORD DOCUMENTS

- A. <u>Contractor's Job Set</u>: Secure from the Architect at the beginning of the Work, at no charge to the Contractor, one complete set of documents comprising the Contract. This Job Set shall be for the Contractor's own use to collect and record all pertinent information on a daily basis.
- B. <u>Record Documents Set</u>: The Trade Contractor shall transfer all information to this set in final form on a weekly basis. This Record Documents Set shall be submitted as the Final Record Documents.
- C. Use only a high-resolution digital camera for the Record Photographs. Cameras shall be of a type capable of imprinting the date on photographs.

PART 3 - EXECUTION

3.01 MAINTENANCE OF JOB SET

A. Identification:

- 1. Upon receipt of the Job Set, identify the documents with the title "<u>Temporary Record</u> Documents: Contractor's Job Set".
- 2. Upon receipt of the Record Documents Set, identify in ink appropriate to sepia media with the title "Record Documents" on each sheet of the Drawings and on the cover sheet of other documents.

B. Preservation:

- Considering the contract completion time, the probable number of occasions upon which
 the Job Set must be taken out for new entries and for examination, and the conditions
 under which these activities will be performed, devise a suitable method for protecting
 the Job Set.
- 2. Use the Job Set for no purpose other than entry of new data and for review by the Architect and Inspector upon request.
- Allow no one to have access to the Record Documents other than the Record Documents Recorder. Record Documents Recorder shall not remove the Record Documents from the Owner's trailer without expressed permission of Architect or Inspector.

C. Making Entries on Drawings:

1. <u>Job Set</u>: Record information in a clear and legible manner. The Job Set shall be maintained on an ongoing basis. Record pertinent information and all changes as they occur, using a sharp color pencil. Each subcontractor shall be responsible to make entries as may be required by their Section of the Specification, under the supervision of the Contractor, and shall date and sign their entries.

2. Record Documents - Paper:

- a. Entries shall only be made by the Record Documents Recorder, using only the plan table designated for drafting in the Owner's trailer.
- b. Entries shall be made weekly, on the day prior to the regular project meetings.

 Transfer all information collected during the previous week from the Job Set

onto the mylar drawings. As each item of information is copied onto the Record Documents, carefully and completely mark with a yellow highlighter over the corresponding item on the Job Set, so that at any time it is clear what information has been transferred and what information is new.

- c. Using permanent ink and technical pens appropriate to mylar medium, clearly describe all changes by note and by graphic line as they occur during the course of the Work. Clearly, indicate at each affected detail and other drawing the full description of changes made during construction and the actual location of items described above. Date all entries. Call attention to the entry by a plastic-lead pencil "cloud" around the area or areas affected.
- d. Each utility shall be shown on its own sheet. Record Documents Recorder shall request extra copies of appropriate sheets as necessary, and clearly label sheets as to the type of utility being recorded (for example, Plumbing Site Plan P1.1 sheets shall be designated P1.1A Sewer, P1.1B Water, P1.1C Fire Line, etc.)
- e. In the event of superseding changes to any area of the drawing, erase only that portion of the preceding change that is affected by the subsequent change before entering the subsequent change.
- f. Include on the Record Documents all changes and as-built locations caused by Addenda, Change Orders, field directive by OSA Field Engineer, etc., such that each sheet of the Record Documents is an accurate description of the final state of the Project.
- 3. Record Documents Digital: Acceptable Option
 - a. All items listed in #2 above may be marked on a set of digital pdf plans, utilizing a pdf editing program such as Bluebeam. All mark-ups shall be in red, dated, and initialed.

D. <u>Making Entries on Other Documents</u>:

- 1. Where changes are caused by directives issued by the Architect, clearly indicate the change by note in ink, or rubber stamp, and reference Office of the State Architect approved addenda and change orders.
- 2. Where changes are caused by Contractor-originated proposals reviewed by the Architect, including inadvertent errors by the Contractor which have been accepted by the Architect, clearly indicate the change by note in ink.
- 3. Make entries in the pertinent documents as reviewed by the Architect.
- E. Before commencing backfilling of utilities or any other underground pipes, ducts, conduits, or structures, take photographs showing the relationship of ALL below ground utilities to structure(s) or other physical reference point.
 - The Record Documents Recorder shall take all photographs and document their locations on a pdf Site Plan, to be a composite utility site plan designated specifically for this purpose.
 - 2. Provide a thumb-drive ("flash drive) with all photo files names corresponding to the marked location on the pdf. Provide a photo(s) of all connections, crossings, stubs, or other critical points. Thumb-drive to be labeled "RECORD PHOTOGRAPHS", and shall show project name. At least weekly, take an overall site photo showing general progress of the Work.

- 3. If the Contractor neglects to take such photographs, Contractor shall uncover, at the Contractor's expense, the area(s) so neglected in order to provide the requisite photos. All photos shall be taken with a camera capable of imprinting the date on the photograph, and only by the Record Documents Recorder.
- 4. Place on a pdf the number of each photograph at the location the photo was taken from, and a mark indicating which way the camera was pointed. All numbers and marks shall be clear, legible, and neatly done. Photo thumb drive and photo plan shall be considered part of the record documents.
- F. <u>Accuracy of Entries</u>: Use means necessary, including proper instruments or tools for measurement, to determine actual locations of the installed items.

3.02 FINAL RECORD DOCUMENTS

- A. Job Set drawings shall be submitted as supporting documentation to the Final Record Document drawings. If the Job Set drawings have been damaged during the course of the Work, secure a new copy of that document from the Architect at the Architect's usual charge for reproduction and carefully transfer the change data to the new copy and obtain the acceptance of the Architect.
- B. If the documents other than drawings have been kept clean successfully during the progress of the work, and if entries have been sufficiently orderly thereon and reviewed by the Architect, they will be accepted by the Architect as the final portion of the Record Documents. If any such document is not so accepted by the Architect, secure a new copy of that document from the Architect at the Architect's usual charge for reproduction and carefully transfer the change data to the new copy and obtain the acceptance of the Architect.
- C. Review and Approval: Submit the completed total set of Record Documents to the Architect as described above. Participate in review meeting or meetings as required by the Architect, make required changes in the Record Documents, and promptly deliver the final Record Documents to the Architect.

3.03 CHANGES SUBSEQUENT TO ACCEPTANCE

A. The contractor shall have no responsibility for recording changes in the work subsequent to acceptance of the work by the Owner, except for changes resulting from replacements, repairs, and alterations made by the Contractor as a part of his guarantee. No changes will be allowed without approval of the Division of the State Architect.

SECTION 02 4100 DEMOLITION

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Building demolition excluding removal of hazardous materials and toxic substances.
- B. Selective demolition of building elements for alteration purposes.

1.02 RELATED REQUIREMENTS

- A. Section 01 1100 Summary of Work: Limitations on Contractor's use of site and premises, work sequence, and occupancy,
- B. Section 01 5200 Construction Facilities and Temporary Controls: Project conditions, utilities, site fences, security, field offices, storage locations, project signs, maintenance, and removal.

1.03 REFERENCE STANDARDS

A. 29 CFR 1926 - U.S. Occupational Safety and Health Standards.

1.04 SUBMITTALS

A. See Section 01 3300, for submittal procedures.

1.05 QUALITY ASSURANCE

A. Demolition Firm Qualifications: Company specializing in the type of work required.

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION

3.01 GENERAL PROCEDURES AND PROJECT CONDITIONS

- A. Comply with applicable codes and regulations for demolition operations and safety of adjacent structures and the public.
 - 1. Obtain required permits.
 - Take precautions to prevent catastrophic or uncontrolled collapse of structures to be removed; do not allow worker or public access within range of potential collapse of unstable structures.
 - 3. Provide, erect, and maintain temporary barriers and security devices.
 - 4. Conduct operations to minimize effects on and interference with adjacent structures and occupants.
 - 5. Do not close or obstruct roadways or sidewalks without permit.
 - Conduct operations to minimize obstruction of public and private entrances and exits; do
 not obstruct required exits at any time; protect persons using entrances and exits from
 removal operations.
 - 7. Obtain written permission from owners of adjacent properties when demolition equipment will traverse, infringe upon or limit access to their property.
- B. Do not begin removal until receipt of notification to proceed from District.
- C. Protect existing structures and other elements that are not to be removed.

- 1. Provide bracing and shoring.
- 2. Prevent movement or settlement of adjacent structures.
- 3. Stop work immediately if adjacent structures appear to be in danger.
- D. Minimize production of dust due to demolition operations; do not use water if that will result in ice, flooding, sedimentation of public waterways or storm sewers, or other pollution.
- E. Hazardous Materials: Comply with 29 CFR 1926 and state and local regulations.
- F. Perform demolition in a manner that maximizes salvage and recycling of materials.
 - 1. Dismantle existing construction and separate materials.
 - 2. Set aside reusable, recyclable, and salvageable materials; store and deliver to collection point or point of reuse.
- G. Partial Removal of Paving and Curbs: Neatly saw cut at right angle to surface.

3.03 SELECTIVE DEMOLITION FOR ALTERATIONS

- A. Drawings showing existing construction and utilities are based on casual field observation and existing record documents only.
 - 1. Verify that construction and utility arrangements are as indicated.
 - 2. Report discrepancies to Architect before disturbing existing installation.
 - 3. Beginning of demolition work constitutes acceptance of existing conditions that would be apparent upon examination prior to starting demolition.
- B. Separate areas in which demolition is being conducted from other areas that are still occupied.
 - 1. Provide, erect, and maintain temporary dustproof partitions of construction.
 - 2. Provide sound retardant partitions of construction indicated on drawings in locations indicated on drawings.
- C. Maintain weatherproof exterior building enclosure except for interruptions required for replacement or modifications; take care to prevent water and humidity damage.
- D. Remove existing work as indicated and as required to accomplish new work.
 - 1. Remove rotted wood, corroded metals, and deteriorated masonry and concrete; replace with new construction specified.
 - 2. Remove items indicated on drawings.
- E. Services (Including but not limited to HVAC, Plumbing, Fire Protection, Electrical, Telecommunications and Security): Remove existing systems and equipment as indicated.
 - Maintain existing active systems that are to remain in operation; maintain access to equipment and operational components.
 - 2. Where existing active systems serve occupied facilities but are to be replaced with new services, maintain existing systems in service until new systems are complete and ready for service.
 - 3. Verify that abandoned services serve only abandoned facilities before removal.
 - 4. Remove abandoned pipe, ducts, conduits, and equipment, including those above accessible ceilings; remove back to source of supply where possible, otherwise cap stub and tag with identification.
- F. Protect existing work to remain.

- 1. Prevent movement of structure; provide shoring and bracing if necessary.
- 2. Perform cutting to accomplish removals neatly and as specified for cutting new work.
- 3. Repair adjacent construction and finishes damaged during removal work.
- 4. Patch as specified for patching new work.

3.04 DEBRIS AND WASTE REMOVAL

- A. Remove debris, junk, and trash from site.
- B. Leave site in clean condition, ready for subsequent work.
- C. Clean up spillage and wind-blown debris from public and private lands.

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SECTION 03 3000 CAST-IN-PLACE CONCRETE

PART 1 - GENERAL

1.01 SUMMARY

- A. Section includes: Completion of cast-in-place concrete for plumbing installation as indicated on the Drawings and specified herein.
- B. Related Sections:
 - 1. Division 01 General Requirements.
 - 2. Section 09 6723 Resinous Flooring.

1.02 QUALITY ASSURANCE

- A. Conform with the requirements of Section 01 4523 Testing Laboratories and Inspection Services.
- B. Perform concrete work in accordance with ACI 301 and ACI 318, unless specified otherwise. Provide continuous inspection and testing for concrete placement in accordance with Title 24, Part 2, California Code of Regulations.
- C. Testing Laboratory Services:
 - Owner will employ and pay for an Independent Testing Laboratory to review the various concrete mixes required to produce concrete of the strengths required for the project. Submit before proceeding with the work. Concrete mix shall be designed per Title 24, Part 2, and ACI 318.
 - 2. Separately, the Owner will employ and pay for a testing laboratory to perform tests and inspections, but the cost of subsequent and additional testing and inspections due to failed items will be back charged to the Contractor.
- D. Installer Qualifications: Minimum 2 years experience in work of this Section.
- E. Mix and deliver concrete to project ready mixed in accordance with ASTM C94.

1.03 ADMINISTRATIVE REQUIREMENTS

- A. All work under this section shall be in accordance with applicable provisions of Title 24, Part 2, Chapter 19A.
- B. Refer to the following information for compliance of materials, products, and installation techniques: ASTM C33/C33M, ASTM C94/C94M, ASTM C150/C150M, ASTM C260/C260M, ASTM C330/C330M, ASTM C494/C494M, ACI 301, ACI 304R, and ACI 305R.
- C. Transit Mixed Concrete: Comply with the provisions of ASTM C494/C494M for the control of transit mix concrete.
- D. Handling and Placing: Concrete transported and placed as per Title 24, Part 2 and ACI 304R. Concrete shall be thoroughly compacted and worked into forms around reinforcing steel using suitable equipment. Vibrating of formwork will not be permitted. Where conditions make placing difficult or reinforcing is congested, batches containing the same proportions of sand and cement used in the concrete plus a maximum of 50 percent of coarse aggregate shall be used.
- E. Inspections: Notify the Architect, Structural Engineer, and the Division of the State Architect (DSA) at least forty-eight hours in advance of the first pour of concrete and sufficiently in advance of subsequent pours, see 1905A, Title 24, Part 2.

- F. Testing: The Inspector will take at least four cylinders of concrete from each day's run of 50 yards, or 2,000 sq. ft. of surface area for slabs, 1905A., Title 24, Part 2, or fractional part thereof. Field specimens of concrete taken and tested in accordance with 1705A.3. Label each cylinder with job name, date, number, the result of the slump test, and the point in the pour in the structure from which the sample was taken noted thereon. One cylinder shall be tested at seven days and two at 28 days. The 4th cylinder shall be stored for 56 days unless instructed otherwise.
- G. Embedded Items: Pipes and conduit in concrete, located, sized and if required, sleeved in accordance with the requirements of 1705A.3, Title 24, Part 2. Bolts and anchorage devices embedded in concrete to fastened sills, tie-down columns and other structural and framing members to concrete installed and secured in place before concrete is placed.
 - Concrete shall be placed in continuous operation between predetermined joint locations.
 Location of construction joints shall be as shown on the drawings or at locations approved by the Architect.
 - Joints shall be straight, exactly horizontal or vertical and the surface of the concrete shall be level wherever a run is stopped. Reinforcement shall be extended through joints or dowels to develop the full strength of the reinforcement. Construction joints shall be per Title 24, Part 19A.

1.04 TESTING

- A. Provide free access to work. Provide laboratory design mix. No substitutions will be accepted. Cement and aggregates shall be tested.
- B. Cement: Test Portland cement in accordance with Sections 1903A.1, Title 24, Part 2.
- C. Placing Record: Keep records of placing in accordance with Section 1705A.3.6, Title 24, Part 2.
- D. Cylinder Test: Provide in accordance with ASTM C39/C39M.
- E. Slump Test: Provide in accordance with ASTM C143/C143M for each set of test cylinders.
- F. Placing Inspection: Provide in accordance with 1705A.3, Title 24, Part 2.

1.05 SUBMITTALS

A. Submit and obtain approval for concrete mix designs, historical test data, admixture data if applicable, and curing compound product data before proceeding with the work.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Cement: Provide ASTM C150/C150M Type II conforming to requirements of 1903A.1, Title 24, Part 2. Aggregates that contain reactive substances that react with cement alkalies may not be used.
- B. Aggregates: ASTM C33/C33M, 1-1/2 inch maximum; 3/4 inch maximum for 4 inch thick slabs, conforming to Title 24, Part 2, 1903A.5.
- C. Water: ASTM C1602/C1602M, provide clean water free from injurious substances.
- D. Admixtures: Admixtures shall not be used for interior slabs-on-grade.
- E. Mixes:
 - 1. Concrete mix design: In accordance with ACI 301, Method 1 or 2.
 - 2. Design concrete to yield following characteristics:
 - a. Minimum 28 day compressive strength: 3,000 PSI.

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b. Slump: 1 to 3 inches.

2.02 COMPONENTS

- A. Joint Materials:
 - 1. Control Joints:
 - a. Sawcut joint. Size(s) and location(s) indicated on drawings.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Certifications: Provide legible copies of the delivery tickets of each load of concrete with the following information:
 - 1. Name and location of the plant.
 - 2. The serial number of the ticket.
 - 3. Date and truck number.
 - 4. Name of the contractor.
 - 5. Name of the project.
 - 6. Type of class of concrete and how to be used.
 - 7. Amount of concrete.
 - 8. Time loaded, time of arriving and unloading at the project site.
 - 9. Water added at the site and total water content.
 - 10. Type, name and amount of admixtures.
 - 11. Name and signature of the person making slump tests.
 - 12. Testing number of test cylinders.

3.02 PREPARATION FOR PLACEMENT

- A. Thoroughly clean tools used in transportation, placing and consolidating concrete immediately after each pour.
- B. Ensure that the required inspections have taken place prior to pouring.

3.03 CONVEYING

- A. Handle concrete from the mixer to the location of placing as rapidly as practical, avoiding separation or loss of ingredients and rehandling. Use carts, wheelbarrows, concrete pumps, conveyors or buggies to deliver concrete to the location of placement.
- B. Do not permit a free fall of more than 4 feet when placing concrete.
- C. Use elephant trunk spouts for placing concrete in vertical elements. Space so that concrete does not exceed 4-foot flow horizontally.

3.04 PLACEMENT

- A. In general, place concrete in accordance with ACI 301, and in the presence of the inspecting personnel required.
- B. Maintain records of poured concrete. Record date, location, quantity, air temperatures, and test samples taken.
- C. Prepare previously placed concrete by cleaning with a steel brush and applying bonding agent.

- D. Pour concrete continuously between predetermined construction, control, and expansion joints. Pour in a checkerboard pattern, unless otherwise directed.
- E. Excessive honeycomb and embedded debris are not acceptable.
- F. Conform to ACI 305R when concreting in hot weather.
- G. Screed slabs and concrete bases level to a tolerance of 1/4-inch in 10 feet.
- H. Inspect concrete surfaces immediately upon removal of forms. Patch imperfections.
- I. Beginning immediately after placement, protect concrete from premature drying, excessively hot or cold temperatures, and mechanical injury. Maintain concrete with minimal moisture loss at a relatively constant temperature for a period necessary for hydration of cement and hardening of concrete.

3.05 FIELD QUALITY CONTROL

- A. Testing: Comply with Title 24, Part 2, Section 1903A.
- B. Title 24, Part 2, Section 1913A "Concrete, Reinforcement, and Anchor Testing", is a part of these specifications.
- C. If compressive strength tests of cylinder specimens fail to show strengths assumed in design, take 4-inch diameter cores at representative locations throughout the structure as designated by Inspector. Take cores in accordance with ASTM C42. The strength level of the concrete shall be considered satisfactory if the average strengths of the area or panel equal or exceed the specified strength at 28 days, with no individual strength test of such area or panel less than 5 percent below that specified. Concrete that does not meet or exceed these criteria shall be removed by the contractor and replaced with concrete that conforms to these criteria. Remove and replace defective concrete at no additional cost to Owner. Be financially responsible for repair and replacement of other in-place materials affected by such removal and replacement.
- D. Costs of taking core samples and performing tests required will be paid by the Owner if tests prove satisfactory. If the test fails to show the required strengths, the concrete contractor will be held financially responsible for the costs of the tests.
- E. If the strength of the molded test cylinder falls below the minimum ultimate compressive strength assumed in the design, adjust the proportions of the mix for the remaining portion of the structure to give concrete of the assumed minimum strength.
- F. Concrete will also be deemed defective which is not formed properly as indicated, is not true to intended alignment, is not plumb or level where so intended, is not true to intended grades, has sawdust or other debris embedded within it, or does not fully conform to other provisions of these specifications. As directed, remove and replace with concrete complying with these specifications.

3.06 PROTECTION

- A. Fill-in holes and openings left in concrete structures for passage of work by other trades, unless otherwise shown or directed, after work of other trades is in place. Mix, place, and cure concrete as herein specified, to blend with in-place construction. Provide other miscellaneous concrete filling shown or required to complete work.
- B. Concrete Surface Repairs: Repair and patch defective areas with cement mortar immediately after removal of forms, when acceptable to Architect.
 - 1. Cut out honeycomb, rock pockets, voids over 1/4 inch in dimension, and holes left by tie rods and bolts, down to solid concrete but, in no case to a depth of less than 1 inch. Make edges of cuts perpendicular to the concrete surface. Thoroughly clean, dampen with

water, and brush-coat the area to be patched with the specified bonding agent. Place patching mortar after bonding compound has dried.

2. For exposed-to-view surfaces, blend white Portland cement and standard Portland cement so that, when dry, patching mortar will match color surrounding. Provide test areas at an inconspicuous location to verify mixture and color match before proceeding with patching. Compact mortar in place and strike-off slightly higher than the surrounding surface.

C. Repair of Unformed Surfaces:

- 1. Test unformed surfaces, such as monolithic slabs, for smoothness and verify surface plane to tolerances specified for each surface and finish. Correct low and high areas as herein specified. Test unformed surfaces sloped to drain for trueness of slope, in addition to smoothness using a template having required slope.
- 2. Repair finished unformed surfaces that contain defects which affect the durability of concrete. Surface defects, as such, include crazing, cracks in excess of 0.01-inch wide or which penetrate to reinforcement or completely through non-reinforced sections regardless of width, spalling, pop-outs, honeycomb, rock pockets, and other objectionable conditions.
- 3. Correct high areas in unformed surfaces by grinding, after the concrete has cured at least 14 days.
- 4. Correct low areas in unformed surfaces during or immediately after completion of surface finishing operations by cutting out low areas and replacing with fresh concrete. Finish repaired areas to blend into adjacent concrete. Proprietary patching compounds may be used when acceptable to Architect.

D. Repair Defective Areas:

- 1. Repair defective areas, except random cracks and single holes not exceeding 1-inch diameter, by cutting out and replacing with fresh concrete. Remove defective areas to sound concrete with clean, square cuts and expose reinforcing steel with at least 3/4-inch clearance around. Dampen concrete surfaces in contact with patching concrete and apply bonding compound. Mix patching concrete of same materials to provide concrete of same type or class as original concrete. Place, compact, and finish to blend with adjacent finished concrete. Cure in the same manner as adjacent concrete.
- 2. Repair isolated random cracks and single holes not over 1 inch in diameter by the dry-pack method. Groove top of cracks and cut-out holes to sound concrete and clean of dust, dirt, and loose particles.
 - Dampen cleaned concrete surfaces and apply a bonding compound. Mix dry-pack, consisting of one part Portland cement to 2-1/2 parts fine aggregate passing a No. 16 mesh sieve, using only enough water as required for handling and placing. Place dry pack after bonding compound has dried. Compact dry-pack mixture in place and finish to match adjacent concrete. Keep the patched area continuously moist for not less than 72 hours.
- 3. Perform structural repairs with prior approval of Architect of Structural Engineer for method and procedure, using specified epoxy adhesive and pressure grouting.
- 4. Repair method not specified above may be used, subject to acceptance of Architect.

SECTION 06 1000 ROUGH CARPENTRY

PART 1 - GENERAL

1.01 SUMMARY

- A. Section includes: Wood framing, blocking, and hardware for alterations as indicated on the Drawings.
- B. Related Sections:
 - 1. Division 01 General Requirements.
 - 2. Section 08 5113 Aluminum Windows.
 - 3. Section 09 2200 Lath and Plaster.
 - 4. Section 09 2900 Gypsum Wallboard.
 - 5. Section 11 4000 Foodservice Equipment.
 - 6. Section 22 4000 Plumbing.
 - 7. Division 26 Electrical.

1.02 REFERENCE STANDARDS

- A. Softwood Lumber: PS 20 American Softwood Lumber Standard.
- B. NFPA National Forest Products Association, National Design Specifications for Stress Grade Lumber and its fastening.
- C. West Coast Lumber Inspection Bureau [WCLIB (GR)], Number 17 Standard Grading and Dressing Rules for West Coast Lumber.
- D. Chapter 23, Title 24, Part 2.
- E. 2016 California Building Code
- F. AWPA: American Wood Protection Association

1.03 QUALITY ASSURANCE

A. Provide lumber with visible grade stamp of an approved agency certified by NFPA.

1.04 DELIVERY, STORING AND HANDLING

- A. Deliver and store materials at the job site in a safe area, out of traffic and shored up, off the ground surface.
- B. Identify framing lumber by grades and store grades separately from each other.
- C. Protect products with adequate waterproofing.
- D. Exercise care in off-loading lumber to prevent damages, splitting and breaking.
- E. Seasoning:
 - 1. Deliver materials at the earliest date possible to allow maximum; drying time on site.
 - 2. Pile and strip lumber at the site to allow free circulation of air with pile protected from sun and moisture.
 - 3. Air-season lumber for at least 60 days before covering with finish materials.

1.05 SUBMITTALS

A. Submit full product data, including structural values, on all framing hardware proposed to be used on the project.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Lumber:
 - PS 20 and WCLIB (GR) Standard Number 17; Douglas Fir-Larch; graded in accordance
 with NFPA Grading Rules; maximum moisture content of 19 percent at the time of
 nailing, bolting, and connecting, grades to be as shown on the Structural Drawings.
 Douglas Fir-Larch (North) shall not be allowed or substituted. Exposed lumber shall be
 Select Structural.
 - a. Douglas fir-larch shall bear WCLIB grade stamp.
 - b. Pressure treated Douglas fir-larch shall be No. 2 minimum and bear the AWPA quality mark and shall have a DSA Product Acceptance Number. Lumber that is not in contact with the ground and is continuously protected from liquid water may be treated according to AWPA C31 with inorganic boron (SBX). Apply field treatment complying with AWPA M4 to cut surfaces and holes in preservative-treated lumber (statements such as "or to refusal" are not permitted).
 - c. No fasteners of any kind shall be driven into lumber that has not attained a maximum moisture content of 19% or LESS, as tested by the Inspector, no exceptions.
 - d. Dimension Lumber:
 - (1) Stud framing: As indicated on Drawings.
 - (2) Miscellaneous framing, blocking, nailer, ground, & furring:
 - a) Lumber: S4S, grade listed above
 - b) Boards: Standard or No. 3
 - c) Sizes as indicated on drawings

2.02 ACCESSORY MATERIALS

- A. Nails, spikes, and staples: Common (with standard lengths), except as otherwise indicated, galvanized for exterior locations, high humidity within conditioned spaces, and treated wood; plain finish for other interior locations; size and type to suit the application.
- B. Steel hardware and stock framing connectors: ASTM A36 steel, galvanized for exterior applications. Provide Simpson products as specified on the plans.
 - 1. KC Metals or other manufacturer with a Division of the State Architect Product Approval number (DSA PA#) may be used if a Request for Substitution is made in time to obtain DSA approval for the change. The Contractor shall submit a "cut-sheet" of the specified item with structural values highlighted, and a "cut-sheet" of the proposed substitution with structural values highlighted, showing equal or greater structural value. This must be done for each piece of manufactured hardware on the Project. Items showing lesser values will be rejected. No substituted steel hardware or framing connectors shall be installed on the Project until DSA approval is obtained for the substitution. Contractors are notified that this process could take several weeks. All parties including the architect

and structural engineer shall be compensated at contractor's expense, at the design professionals' standard hourly rates, for any time spent to obtain DSA approval for the substitution.

- 2. Comply with requirements of 2304.10, Title 24, Part 2
- C. Lag Bolts: FS FF-B-561.
- D. Wood preservative: Wolmanizing treatment at least two weeks prior to delivery to site.
- E. Machine Bolts: ASTM A307.
- F. Pressure Treatment: Sills and plates in contact with concrete or masonry within 48-inches of the ground, and wood posts and columns bearing directly on concrete shall be water-borne preservative pressure treated in accordance with paragraph 2516 (c), Title 24, Part 2.
 - At cuts, holes, notches and other field operations which expose a surface not factory treated with preservative, field apply preservative material compatible with original material shall bear mark LP-2 AWPW.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Selection of Lumber: Carefully select members. Ensure that exposed members are free of heart center. Select members so that knots and obvious defects will not interfere with placement of bolts, proper nailing or making proper connections, and not impair achievement of proper finished appearances where to be exposed.
- B. Cut out and discard defects which will render a piece unable to serve its intended function. Lumber may be rejected by the Architect or Inspector, whether or not it has been installed, for excessive warp, twist, bow, crook, mildew, fungus, or mold, as well as for improper cutting and fitting

3.02 GENERAL FRAMING

- A. In addition to framing operations normal to fabrication and erection indicated on drawings, install wood backing required for work of other trades
- B. Set horizontal and sloped members with crown up.

3.04 BEARINGS

- A. Make bearings full unless shown otherwise.
- B. Finish bearing surfaces on which structural members are to rest so as to give sure and even support. Where framing members slope, cut or notch ends as required to give uniform bearing surface.

3.05 SHIMMING

A. Do not shim framing member except where specifically shown or required by drawings.

3.06 BLOCKING

A. Install blocking required to support items of finish and to cut off concealed draft openings, both vertical and horizontal, between ceiling and floor. Provide fire blocking and draft stops in conformance to requirements of the California Building Code.

3.07 ALIGNMENT

A. On framing members to receive a finished surface, align finish sub-surface to vary not more than 1/8-inch from plane of surface of adjacent framing and furring members.

3.08 FASTENING

- A. Use only common wire nails or spikes of standard lengths and gages as specified in the California Building Code.
- B. For conditions not covered on drawings, Contractor to request clarification or provide penetration into piece receiving point not less than 1/2 length of nail or spike, provided that 16d nails may be used to connect two pieces of nominal 2-inch thickness as specified by the Architect.
- C. For bolts, drill holes 1/32-inch to 1/16-inch larger in diameter than bolts being used. Drill straight and true from one side only.
- D. Bolt threads shall not bear on wood. Use washers under head and nut where both bear on wood. Use washers under nuts.
- E. For lag-screws, and wood screws, pre-bore holes in accordance with NDS and CBC requirements.
- F. Screw, do not drive, lag screws and wood screws.
- G. Nailing schedule shall be per Title 24, Table 2304.9.1, and as required on the Structural Drawings.

SECTION 06 8316 FIBERGLASS REINFORCED PANELING

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes: Installation of Fiberglass Reinforced Plastic Panels as shown on Drawings and specified herein.
- B. Related Sections:
 - 1. Division 01 General Requirements.
 - 2. Section 07 9200 Joint Sealants.
 - 3. Section 09 2900 Gypsum Wallboard.
 - 4. Section 09 6723 Resinous Flooring.

1.02 REFERENCED STANDARDS

- California Code of Regulation, Title 24, Part 11 California Green Building Standard Code, "CAL-Green".
- B. California Code of Regulation, Title 24, Part 2 California Building Code, International Building Code, with California Amendments.
- C. American Society for Testing and Materials: Standard Specifications (ASTM)
 - 1. ASTM D 256 Izod Impact Strengths (ft #/in)
 - 2. ASTM D 570 Water Absorption (%)
 - 3. ASTM D 638 Tensile Strengths (psi) & Tensile Modulus (psi)
 - 4. ASTM D 790 Flexural Strengths (psi) & Flexural Modulus (psi)
 - 5. ASTM D 2583- Barcol Hardness
 - ASTM D 5319 Standard Specification for Glass-Fiber-Reinforced Polyester Wall and Ceiling Panels.
 - 7. ASTM E 84 Standard Test Method for Surface Burning Characteristics of Building Materials.

1.03 SUBMITTALS

- A. Product Data: Submit sufficient manufacturer's data to indicate compliance with these specifications, including:
 - 1. Preparation instructions and recommendations.
 - 2. Storage and handling requirements and recommendations.
 - 3. Installation methods.
- B. Shop Drawings: Submit elevations of each wall showing location of paneling and trim members with respect to all discontinuities in the wall elevation.
- C. Selection Samples: Submit manufacturer's standard color pattern selection samples representing manufacturer's full range of available colors and patterns.

- D. Samples for Verification: Submit appropriate section of panel for each finish selected indicating the color, texture, and pattern required.
 - 1. Submit complete with specified applied finish.
 - 2. For selected patterns show complete pattern repeat.
 - 3. Exposed Molding and Trim: Provide samples of each type, finish, and color.
- E. Manufacturers Material Safety Data Sheets (MSDS) for adhesives, sealants and other pertinent materials prior to their delivery to the site.
- F. CAL-Green Submittals:
 - Product Data VOC Limits: For adhesives, sealants, fillers, and primers, documentation including a printed statement of VOC contents, comply with requirements of Cal-Green Building Standards Code, Section 5.504.
 - 2. Low/No-VOC Paints and Coatings: Provide certification that all primers and coatings meet VOC emissions with requirements of Cal-Green Building Standards Code, Section 5.504. List manufacturer, brand, application, type (flat or non-flat), and the VOC emissions per gallon in terms of grams/liter. Include M.S.D.S. and product data sheet indicating VOC limits for each product provided.

1.04 QUALITY ASSURANCE

- A. Conform to building code requirements for interior finish for smoke and flame spread requirements as tested in accordance with:
 - 1. ASTM E 84 (Method of test for surface burning characteristics of Building Materials)
 - a. Wall Required Rating Class C.
- B. Sanitary Standards: System components and finishes to comply with:
 - 1. United States Department of Agriculture (USDA) requirements for food preparation facilities, incidental contact.
 - 2. Food and Drug Administration (FDA) 1999 Food Code 6-101.11.

1.05 DELIVERY, STORAGE AND HANDLING

- A. Materials shall be inspected immediately upon delivery and defects reported. Damaged or deteriorated materials shall be removed from the premises.
- B. Remove panels from shipping skid and restack on a solid, flat, dry surface. Do not stack on fresh concrete floors or other surfaces that may emit moisture. Lay panels flat. Do not store on edge.
- C. Panels should be acclimated at least 24 hours in temperature and humidity conditions approximating the operating environment of the finished room.
- D. Store panels and trim lying flat, under cover and protected from the elements. Allow panels to acclimate to room temperature (range of 60 to 75°F) for 48 hours prior to installation.

1.06 PROJECT CONDITIONS

- A. Environmental Limitations: Building is to be fully enclosed prior to installation with sufficient heat (70°) and ventilation consistent with good working conditions for finish work.
- B. During installation and for not less than 48 hours before, maintain an ambient temperature and relative humidity within limits required by type of adhesive used and recommendation of adhesive manufacturer.

1. Provide ventilation to disperse fumes during application of adhesive as recommended by the adhesive manufacturer.

1.07 WARRANTY

- A. Furnish one year guarantee against defects in material and workmanship.
- B. Comply with additional requirements set forth in Section 01 7836 Warranties, Guaranties, and Bonds.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. Marlite: tel: (562) 926-7208; Santa Fe Springs, CA; web: www.marlite.com.
 - 1. Standard FRP.
- B. Crane Composites: tel: (815) 467-8600; Channahon, IL; Email: email: info@marlite.com; web: www.cranecomposites.com.
 - 1. Sequentia Flat.
- C. Substitutions: In accordance with Section 01 6200 Product Options and Substitutions.

2.02 PANELS

- A. Fiberglass Reinforced Panels shall be UL listed with a flame spread of 76-200 (Class C) and smoke developed less than 200, meeting CBC Class 1/CCI.
 - 1. Type 1:
 - a. Thickness: 0.090 inch.
 - b. Width: 4'-0" (1.22m) nominal.
 - c. Length: 8'-0" (2.4m) nominal unless otherwise noted on the Drawings.
 - d. Tolerance:
 - (1) Length and Width: $\pm 1/8$ " (3.175mm).
 - (2) Square Not to exceed 1/8 " for 8 foot (2.4m) panels or 5/32 " (3.96mm) for 10 foot (2.4m) panels.
 - e. Color: White.
 - f. Texture: Smooth.

2.03 MOLDINGS/TRIM

- A. Exposed panel edges shall be finished with appropriate one-piece or two-piece non-staining PVC extruded moldings as standard with the panel manufacturer.
 - 1. Inside corner
 - 2. Outside corner
 - 3. Edge
 - 4. Division
 - 5. Base cove
 - 6. Base molding
 - 7. Corner guard

2.04 CAULKS AND ADHESIVES

A. Use only high-quality construction grade adhesives and clear silicone sealant in accordance with the manufacturer's recommended installation procedures.

2.05 FASTENERS

A. Non-corroding mechanical. Truss head nylon drive rivets or stainless steel screws. Fastener holes must be pre-drilled and slightly oversized.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Examine backup surfaces to determine that corners are plumb and straight, surfaces are smooth, uniform, clean and free from foreign matter, nails are countersunk, joints and cracks filled flush and smooth with the adjoining surface.
 - 1. Verify that stud spacing does not exceed 24" (61cm) on-center.
- B. Wall Preparation: Sub-walls must be flat, clean, dry and free of all dirt, dust or grease.

3.02 INSTALLATION

- A. Expansion: Leave not less than a 1/4-inch gap at the ceiling and floor, 1/8-inch gap between wall panels for normal expansion and contraction. Allow not less than 1/8-inch gap around pipes, electrical fittings, and other projection. Fill gaps with flexible, silicone based caulking to complete moisture seal.
- B. Fastener Positioning: Install fasteners no farther than 8 inches apart around outside edges and 12 inches apart on intermediate 16-inch centers. Stagger fasteners on opposing panel edges. Outside fasteners should be approximately 1 inch from panel edge.
- C. Sealing and Caulking; Caulk all corner seams, ceiling and base junctures, and fastener holes.

3.03 CLEANING

- A. Upon completion of work, each day, remove surplus materials, rubbish, and debris resulting from this material installation and leave the area of work in a neat, clean condition.
- B. Remove excess sealant from panels and moldings. Wipe panel down using a damp cloth and mild soap solution or cleaner.
- C. Refer to manufacturer's specific cleaning recommendations Do not use abrasive cleaners.

SECTION 07 9200 JOINT SEALANTS

PART 1 - GENERAL

1.01 SUMMARY

- A. Section includes: Sealants and backing, primers, and bond-breakers as indicated on the Drawings and specified herein. Work will include, but is not limited to the following locations:
 - 1. Expansion and control joints
 - 2. Sills jambs and heads of windows, doors, louvers and similar openings where they abutt dissimilar materials.
 - 3. Horizontal joints
 - 4. Hidden joints expected to undergo minimal movement.

B. Related Work:

- 1. Division 01 General Requirements.
- 2. Section 03 3000 Cast-in-Place Concrete.
- 3. Section 08 5113 Aluminum Window.
- 4. Section 08 8100 Glass and Glazing.
- 5. Section 09 2200 Lath and Plaster.
- 6. Section 09 2900 Gypsum Board.

1.02 REFERENCE STANDARDS

- California Code of Regulations, Title 24, Part 11 California Green Building Standards Code, "CAL-Green".
- B. California Code of Regulations, Title 24, Part 2, California Building Code (CBC), International Building Code with California Amendments.

1.03 SUBMITTALS

- A. Submit manufacturer's printed literature and installation instructions on specified materials for review.
- B. Submit manufacturer's standard colors of materials for selection.
- C. Submit standard size sample of back-up material, primer, and bond-breaker proposed for each system.
- D. CAL-Green Submittals:
 - Product Data VOC Limits: For adhesives, sealants, fillers, and primers, documentation including a printed statement of VOC contents, comply with requirements of Cal-Green Building Standards Code, Section 5.504.
 - 2. Low/No-VOC Paints and Coatings: Provide certification that all primers and coatings meet VOC emissions with requirements of Cal-Green Building Standards Code, Section 5.504. List manufacturer, brand, application, type (flat or non-flat), and the VOC emissions per gallon in terms of grams/liter. Include M.S.D.S. and product data sheet indicating VOC limits for each product provided

1.04 OUALITY ASSURANCE

- A. Proper caulking and proper installation of sealants require that installers be thoroughly trained and experienced in the necessary skills and thoroughly familiar with the specified requirements.
- B. For caulking and installation of sealants throughout the project, use only personnel who have been specifically trained in such procedures and who are completely familiar with the joint details shown or required, and the installation requirements called for in these specifications.
- C. Coordinate this work with the work of other sections to ensure proper installations.
- D. Provide written certification that materials in contact with the sealants and appurtenant components, such as gaskets, spacers, setting blocks, concrete curing compounds, aluminum finishes, etc., are compatible with the sealants after 21-days exposure to ultraviolet 2000 4000 (micro-watt radiation).
- E. Provide adhesion test data to production samples of metal and glass/spandrels, tested in accordance with ASTM C794.

1.05 GUARANTEES AND WARRANTIES

- A. Manufacturer's 10-year warranty for exterior sealers against sealer failure.
- B. Provide two-year guarantee against defects in materials and workmanship of materials and installation. Include replacement or repairs as may be required by Owner.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. BASF Building Systems. www.buildingsystems.basf.com
- B. Dow Corning. www.dowcorning.com
- C. GE Silicones. www.siliconeforbuilding.com
- D. Pecora. www.pecora.com
- E. Sika. www.sikausa.com
- F. Substitutions: Refer to Division 01 General Requirements.

2.02 SEALANTS

- A. Horizontal Non-Traffic-Bearing Surfaces: Provide acrylic or terpolymer acrylic base, chemical curing, self-leveling type sealants, non-sagging, uniform, homogeneous and free from lumps, capable of being continuously immersed in water, withstand movement up to 12.5 percent of joint width, and satisfactorily gunnable at 70 degrees F., non-staining and non-bleeding, in colors to be selected by Architect.
- B. Horizontal traffic-bearing joints: Provide multi-component, self-leveling polyurethane joint sealant meeting ASTM C920 and Federal Specifications TT-S-00227E, Type I Class A, capable of movement to plus or minus 25 percent.
- C. Vertical surfaces: Provide three-part epoxidized polyurethane terpolymer sealant, non-sagging, gun grade, meeting Federal specifications TT-S-00227E, Class A, Type II, and ASTM C920, Type M, Grade NS, Class 25, use NT, M, A, and O.
- D. Hidden, paintable, or low movement interior joints: Provide materials in compliance with Federal Specifications TT-S-001657, Type I, Butyl type, able to withstand joint movement to a maximum five percent.

E. Acoustical sealants: Where required, provide acoustical sealants manufactured by Tremco or other approved; highly resilient, permanently flexible, and shrink and stain resistant.

2.03 ACCESSORIES

- A. Primers: Where necessary, provide primers compatible with not onlysealant, but substrate and finish on which to be applied. Primers are to be a non-staining type and must have been specifically tested for durability on the surfaces to be sealed and are specifically recommended for this installation by their manufacturer.
- B. Back-up Materials: Provide one of the following, as recommended for the particular joint construction and sealant type:
 - 1. Close-cell resilient urethane or
 - a. polyvinyl-chloride foam
 - 2. Close-cell polyethylene foam
 - 3. Closed-cell sponge of vinyl or rubber
 - 4. Polychloroprene tubes or beads
 - 5. Polyisobutylene extrusions
 - 6. Oil-less dry jute
 - 7. Preformed support strips for tile control joints and expansion joints, polyisobutylene or polychloroprene rubber.
- C. Bond Breaker: Use only one of the following as best suited for the specific application and as recommended by the manufacturer of the sealant to be used.
 - 1. Type 1: Polyethylene type, pressure-sensitive adhesive, with the adhesive required only to hold tape to the construction materials shown.
 - 2. Type 2: Aluminum foil conforming to MIL-SPEC-MIL-A-148E.
 - 3. Type 3: Wax paper conforming to Federal Specifications UU-P-270.
- D. Masking Tape: For masking around joints, provide masking tape conforming to Federal Specifications UU-T-106c.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Joints and surfaces which are to be caulked or sealed shall be clean, dry and free of dust, loose mortar, and other foreign materials.
- B. Clean ferrous metals of rust, mill scale, and coatings by wire brush, grinding or sandblasting. Remove oil, grease and/or temporary protective coatings with high-performance cleaners, as approved by sealant manufacturer, such as Tremco No. 200 cleaner.
- C. Joint dimensions for sealant should be reviewed and installed in accordance with sealant manufacturer's printed instructions. In no case should the sealant application be less than 1/4-inch wide, and 1/4-inch deep, except in specific metal-to-metal curtain wall applications, and then as recommended by the sealant manufacturer.
- D. Concrete or masonry joint surfaces shall be wire brushed, then air-blown clean. The joint interface must be free of form release agents of chemical retarders which may interfere with sealant adhesion and performance.

- E. Sealants shall not be applied to masonry joints where a water repellent or masonry preservative has been applied prior to caulking. When called for, waterproofing treatments should be applied after caulking.
- F. Do not caulk joints until they are in compliance with requirements of the approved manufacturer of the materials, the details as shown on the Drawings, and the specific requirements of other sections of the specification.

3.02 INSTALLATION

- A. Apply and install sealant where shown on drawings, or if not shown on Drawings, apply and install sealant materials and products which need to avoid infiltration of moisture, water, light, or air blown particles into building; and within building where changes of materials in the same or different planes could allow moisture, water, air, or light to penetrate.
- B. Provide acoustical sealants on, around and between building construction members such as framing, panel boxes, cutouts for penetrations of other materials or equipment, etc., where walls and floors are designated to be sound attenuated or acoustically treated.
- C. Install joint backing with a blunt instrument so as not to puncture the surface skin. Size of joint backing should be determined by taking the joint width and adding 25 percent to assure proper compression of backer rod.
- D. Apply sealant with a caulking gun, using proper nozzles. Use sufficient pressure to properly fill the joints with sealant to the back-up materials.
- E. After joints have been completely filled, they shall be neatly tooled to eliminate air pockets or voids and to provide a smooth, neat appearing finish in intimate contact with interfaces. After tooling, the surface of sealant shall be free of ridges, wrinkles, sags, air pockets, and embedded impurities.
- F. It is recommended that a 40-degree F. minimum application temperature is maintained for joint sealant installations. When it is necessary, that applications be made at lower temperatures, take precautions to assure that joints have clean, dry, and frost-free surfaces. Submit letter by sealant manufacturer's representative, that surfaces are acceptable.

END OF SECTION

SECTION 08 5113 ALUMINUM WINDOWS

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Extruded aluminum windows, with horizontal sliding panels.

1.02 RELATED SECTIONS

- A. Division 01 General Requirements.
- B. Section 07 9200 Joint Sealants: Sealing joints between window frames and adjacent construction.
- C. Section 08 8100 Glazing.
- D. Section 09 2200 Lath and Plaster.
- E. Section 09 2900 Gypsum Wallboard.

1.03 REFERENCE STANDARDS

- California Code of Regulations, Title 24, Part 11 California Green Building Standards Code, "CAL-Green".
- B. California Code of Regulations, Title 24, Part 2, California Building Code (CBC), International Building Code with California Amendments.
- C. AAMA/WDMA/CSA 101/I.S.2/A440 North American Fenestration Standard/Specification for windows, doors, and skylights 2017.
- D. AAMA CW-10 Care and Handling of Architectural Aluminum From Shop to Site 2015.
- E. AAMA 502 Voluntary Specification for Field Testing of Newly Installed Fenestration Products 2012.
- F. AAMA 609 & 610 Cleaning and Maintenance Guide for Architecturally Finished Aluminum (Combined Document) 2015.
- G. AAMA 611 Voluntary Specification for Anodized Architectural Aluminum 2014 (2015 Errata).
- H. ASTM E783 Standard Test Method for Field Measurement of Air Leakage Through Installed Exterior Windows and Doors 2002 (Reapproved 2010).
- I. ASTM E1105 Standard Test Method for Field Determination of Water Penetration of Installed Exterior Windows, Skylights, Doors, and Curtain Walls, by Uniform or Cyclic Static Air Pressure Difference 2015.

1.04 SUBMITTALS

- A. See Section 01 3300, for submittal procedures.
- B. Product Data: Provide component dimensions, information on glass and glazing, internal drainage details and descriptions of hardware and accessories.
- C. CAL-Green Submittals:
 - 1. Product Data VOC Limits: For adhesives, sealants, fillers, and primers, documentation including a printed statement of VOC contents, comply with requirements of Cal-Green Building Standards Code, Section 5.504.

- 2. Low/No-VOC Paints and Coatings: Provide certification that all primers and coatings meet VOC emissions with requirements of Cal-Green Building Standards Code, Section 5.504. List manufacturer, brand, application, type (flat or non-flat), and the VOC emissions per gallon in terms of grams/liter. Include M.S.D.S. and product data sheet indicating VOC limits for each product provided.
- D. Shop Drawings: Indicate opening dimensions, elevations of different types, framed opening tolerances, method for achieving air and vapor barrier seal to adjacent construction, anchorage locations, and installation requirements.
- E. Grade Substantiation: Prior to submitting shop drawings or starting fabrication, submit one of the following showing compliance with specified grade:
 - 1. Evidence of AAMA Certification.
 - 2. Evidence of WDMA Certification.
 - 3. Evidence of CSA Certification.
 - 4. Test report(s) by independent testing agency itemizing compliance and acceptable to authorities having jurisdiction.
- F. Field Quality Control Submittals: Report of field testing for water penetration and air leakage.
- G. Manufacturer's Qualification Statement.
- H. Installer's Qualification Statement.
- I. Warranty: Submit manufacturer warranty and ensure that forms have been completed in the District's name and registered with the manufacturer.

1.05 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with a minimum of three years of documented experience.
- B. Installer Qualifications: Company specializing in performing work of type specified and with at least three years of documented experience.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Comply with the requirements of AAMA CW-10.
- B. Protect finished surfaces with wrapping paper or strippable coating during installation. Do not use adhesive papers or sprayed coatings that bond to substrate when exposed to sunlight or weather.

1.07 FIELD CONDITIONS

- A. Do not install sealants when ambient temperature is less than 40 degrees F(5 degrees C).
- B. Maintain this minimum temperature during and 24 hours after installation of sealants.

1.08 WARRANTY

- A. See Section 01 7700 Contract Closeout, for additional warranty requirements.
- B. Correct defective Work within a five-year period after Date of Substantial Completion.
- C. Provide five-year manufacturer warranty against failure of glass seal on insulating glass units, including interpane dusting or misting. Include provision for replacement of failed units.
- D. Provide five-year manufacturer warranty against excessive degradation of exterior finish. Include provision for replacement of units with excessive fading, chalking, or flaking.

1.08 REGULATORY REQUIREMENTS

- A. **Windows:** Where glazed openings are provided in accessible rooms or spaces for operation by occupants, at least one shall comply with 2016 C.B.C. Section 11B-309.
- B. **Pass-through windows:** Pass-through windows of sales/service counter shall comply with the reach and access requirements of 2016 C.B.C. Sections 11B-227.3, 11B-305, 11B-306, 11B-308, 11B-309, and 11B-904.4

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. Acceptable Manufacturers:
 - 1. Capitol Aluminum and Glass Corp. (www.capitol-windows.com)
 - 2. EFCO Corporation. (www.efcocorp.com)
 - 3. Kawneer Co., Inc. (www.kawneer.com)
 - 4. Peerless Products, Inc. (www.peerlessproducts.com)
 - 5. Ply Gem Windows. (www.plygemwindows.com)
- B. Substitutions: 01 6200 Product Options and Substitutions.

2.02 WINDOWS

- A. Aluminum Windows: Extruded aluminum frame and sash, factory fabricated, factory finished, with operating hardware, related flashings, and anchorage and attachment devices.
 - 1. Frame Depth: 3-1/2 inches (88.9 mm).
 - Fabrication: Joints and corners flush, hairline, and weatherproof, accurately fitted and secured; prepared to receive anchors; fasteners and attachments concealed from view; reinforced as required for operating hardware and imposed loads.
 - 3. Fabricate to AAMA/WDMA/CSA 101/I.S.2/A440.
 - 4. Perimeter Clearance: Minimize space between framing members and adjacent construction while allowing expected movement.
 - 5. Movement: Accommodate movement between window and perimeter framing and deflection of lintel, without damage to components or deterioration of seals.
 - 6. System Internal Drainage: Drain to the exterior by means of a weep drainage network any water entering joints, condensation occurring in glazing channel, and migrating moisture occurring within system.
 - 7. Thermal Movement: Design to accommodate thermal movement caused by 180 degrees F(82.2 degrees C) surface temperature without buckling stress on glass, joint seal failure, damaging loads on structural elements, damaging loads on fasteners, reduction in performance or other detrimental effects.
 - 8. Accessories:
 - a. Fasteners: Series 300 stainless steel.
 - b. Insect Screens: Aluminum.
- B. Sliding, Operable Type:
 - 1. Fixed panels as indicated on Drawings.
 - 2. Horizontal sliding panels as indicated on Drawings.

- 3. Glazing: As specified in Section 08 8100 Glass and Glazing
- 4. Exterior Finish: Class I natural anodized.
- 5. Interior Finish: Class I natural anodized.

2.03 FINISHES

- A. Class I Color Anodized Finish: AAMA 611 AA-M12C22A42 Integrally colored anodic coating not less than 0.7 mils(0.018 mm) thick.
- B. Finish Color: As selected by Architect from manufacturer's standard range.
- C. Operator and Exposed Hardware: Enameled to color as selected from manufacturer's standard line.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Verify that wall openings and adjoining air and vapor seal materials are ready to receive aluminum windows.

3.02 INSTALLATION

- A. Install windows and glass doors in accordance with ASTM E2112, manufacturer's instructions, and approved Shop Drawings.
- B. Install windows in accordance with manufacturer's instructions.
- C. Attach window frame and shims to perimeter opening to accommodate construction tolerances and other irregularities.
- D. Align window plumb and level, free of warp or twist. Maintain dimensional tolerances and alignment with adjacent work.
- E. Install sill and sill end angles.
- F. Provide thermal isolation where components penetrate or disrupt building insulation. Pack fibrous insulation in shim spaces at the perimeter of the assembly to maintain continuity of thermal barrier.
- G. Install glass and infill panels in accordance with requirements specified in Section 08 8100.

3.03 TOLERANCES

A. Maximum Variation from Level or Plumb: 1/16 inches every 3 ft(1.5 mm/m) non-cumulative or 1/8 inches per 10 ft(3 mm/3 m), whichever is less.

3.04 FIELD QUALITY CONTROL

- A. See Section 01 4500 Quality Requirements, for independent field testing and inspection requirements, and requirements for monitoring quality of specified product installations.
- B. Provide field testing of installed aluminum windows by an independent laboratory in accordance with AAMA 502 and AAMA/WDMA/CSA 101/I.S.2/A440 during the construction process and before installation of interior finishes.
 - 1. Field test for water penetration in accordance with ASTM E1105 using Procedure B cyclic static air pressure difference; test pressure shall not be less than 1.9 psf(91 Pa).
 - 2. Field test for air leakage in accordance with ASTM E783 with uniform static air pressure difference of 1.57 psf(75 Pa).

- a. Maximum allowable rate of air leakage is 1.5 times specified rate of 0.10 cfm/sq ft(0.5 L/s sq m) as indicated in AAMA/WDMA/CSA 101/I.S.2/A440.
- C. Repair or replace fenestration components that have failed designated field testing, and retest to verify performance conforms to specified requirements.

3.05 ADJUSTING

A. Adjust hardware for smooth operation and secure weathertight closure.

3.06 CLEANING

- A. Remove protective material from factory finished aluminum surfaces.
- B. Wash surfaces by method recommended and acceptable to window manufacturer; rinse and wipe surfaces clean.
- C. Upon completion of installation, thoroughly clean aluminum surfaces in accordance with AAMA 609 & 610.
- D. Remove excess glazing sealant by moderate use of mineral spirits or other solvent acceptable to sealant and window manufacturer.

END OF SECTION

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SECTION 08 7100 DOOR HARDWARE

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Door hardware.
- B. Related Divisions:
 - 1. See Section 01 1100 Summary of Work
 - 2. Division 07 sealant at exterior thresholds
 - 3. Division 08 metal doors and frames.
- C. Specific Omissions: Hardware for the following is specified or indicated elsewhere.
 - 1. Windows.
 - 2. Cabinets, including open wall shelving and locks.
 - 3. Signs, except where scheduled.
 - 4. Toilet accessories, including grab bars.
 - 5. Installation.
 - 6. Rough hardware.
 - 7. Access doors and panels, except cylinders where detailed.
 - 8. Corner Guards.

1.02 REFERENCES:

- A. Use date of standard in effect as of Bid date.
 - 1. American National Standards Institute
 - a. ANSI 156.18 Materials and Finishes.
 - b. ICC/ANSI A117.1 1998 Specifications for making buildings and facilities usable by physically handicapped people. [omit for CA work not applicable]
 - 2. BHMA Builders Hardware Manufacturers Association
 - 3. 2016 California Building Code
 - a. Chapter 11B Accessibility To Public Buildings, Public Accommodations, Commercial Buildings and Public Housing
 - 4. DHI Door and Hardware Institute
 - 5. NFPA National Fire Protection Association
 - a. NFPA 80 Standard for Fire Doors and Other Opening Protectives.
 - b. NFPA 105 Smoke and Draft Control Door Assemblies
 - c. NFPA 252 Fire Tests of Door Assemblies
 - 6. UL Underwriters Laboratories

- a. UL 10C Positive Pressure Fire Tests of Door Assemblies.
- b. UL 305 Panic Hardware
- 7. WHI Warnock Hersey Incorporated State of California Building Code
- 8. Local applicable codes
- 9. SDI Steel Door Institute
- 10. WI Woodwork Institute
- 11. AWI Architectural Woodwork Institute
- 12. NAAMM National Association of Architectural Metal Manufacturers

1.03 SUBMITTALS & SUBSTITUTIONS

- A. SUBMITTALS: Submit six copies of schedule per D. Only submittals printed one sided will be accepted and reviewed. Organize vertically formatted schedule into "Hardware Sets" with index of doors and headings, indicating complete designations of every item required for each door or opening. Minimum 10pt font size. Include following information:
 - 1. Type, style, function, size, quantity and finish of hardware items.
 - 2. Use BHMA Finish codes per ANSI A156.18.
 - 3. Name, part number and manufacturer of each item.
 - 4. Fastenings and other pertinent information.
 - 5. Location of hardware set coordinated with floor plans and door schedule.
 - 6. Explanation of abbreviations, symbols, and codes contained in the schedule.
 - 7. Mounting locations for hardware.
 - 8. Door and frame sizes, materials and degrees of swing.
 - 9. List of manufacturers used and their nearest representative with address and phone number.
 - 10. Catalog cuts.
 - 11. Point-to-point wiring diagrams.
 - 12. Manufacturer's technical data and installation instructions for electronic hardware.
- B. Bid and submit manufacturer's updated/improved item if the scheduled item is discontinued.
- C. Deviations: Highlight, encircle or otherwise identify deviations from "Schedule of Finish Hardware" on submittal with notations clearly designating those portions as deviating from this section.
- D. If a discrepancy between drawings and scheduled material in this section, bid the more expensive of the two choices, note the discrepancy in the submittal and request direction from Architect for resolution.
- E. Substitutions per Division 1. Include product data and indicate a benefit to the Project. Furnish operating samples on request.
- F. Items listed with no substitute manufacturers have been requested by the Owner to meet existing standard.
- G. Furnish as-built/as-installed schedule with closeout documents, including keying schedule, riser and point-to-point wiring diagrams, manufacturers' installation, adjustment and maintenance information, and supplier's final inspection report.

1.04 QUALITY ASSURANCE:

A. Qualifications:

- Hardware supplier: direct factory contract supplier who employs a certified architectural hardware consultant (AHC), available at reasonable times during the course of work for project hardware consultation to Owner, Architect, and Contractor.
 - a. Responsible for detailing, scheduling, and ordering of finish hardware. Detailing implies that the submitted schedule of hardware is correct and complete for the intended function and performance of the openings.
- B. Hardware: Free of defects, blemishes, and excessive play. Obtain each kind of hardware (latch and locksets, exit devices, hinges, and closers) from one manufacturer.
- C. Exit Doors: Operable from inside with single motion without the use of a key or special knowledge or effort.
- D. Fire-Rated Openings: NFPA 80 compliant. Hardware UL10C (positive pressure) compliant for given type/size opening and degree of label. Provide proper latching hardware, non-flaming door closers, approved-bearing hinges, and resilient seals. Coordinate with wood door section for required intumescent seals. Furnish openings complete.
- E. Furnish hardware items required to complete the work in accordance with specified performance level and design intent, complying with manufacturers' instructions and code requirements.
- F. Pre-Installation Meetings: Initiate and conduct with supplier, installer and related trades, coordinate materials and techniques, and sequence complex hardware items and systems installation. Include manufacturers' representatives of locks, panic hardware and door closers in the meetings. Convene prior to the commencement of related work.

1.05 DELIVERY, STORAGE AND HANDLING:

- A. Delivery: coordinate delivery to appropriate locations (shop or field).
 - 1. Permanent keys and cores: secured delivery direct to the Owner's representative.
- B. Acceptance at Site: Items individually packaged in manufacturers' original containers, complete with proper fasteners and related pieces. Clearly mark packages to indicate contents, locations in hardware schedule and door numbers.
- C. Storage: Provide securely locked storage area for hardware, protect from moisture, sunlight, paint, chemicals, dust, excessive heat and cold, etc.

1.06 PROJECT CONDITIONS AND COORDINATION:

- A. Where exact types of hardware specified are not adaptable to finished shape or size of members requiring hardware, provide suitable types having as nearly as practicable the same operation and quality as type specified, subject to Architect's approval.
- B. Coordination: Coordinate hardware with other work. Furnish hardware items of proper design for use on doors and frames of the thickness, profile, swing, security and similar requirements indicated, as necessary for proper installation and function, regardless of omissions or conflicts in the information on the Contract Documents. Furnish related trades with the following information:
 - 1. Location of embedded and attached items to concrete.
 - 2. Location of wall-mounted hardware, including wall stops.
 - 3. Location of finish floor materials and floor-mounted hardware.

- 4. At masonry construction, coordinate with the anchoring and hollow metal supplier prior to frame installation by placing a strip of insulation, wood, or foam, on the back of the hollow metal frame behind the rabbet section for continuous hinges, as well as at rim panic hardware strike locations, silencers, coordinators, and door closer arm locations. When the frame is grouted in place, the backing will allow drilling and tapping without dulling or breaking the installer's bits.
- 5. Locations for conduit and raceways as needed for electrical, electronic and electropneumatic hardware items. Fire/life-safety system interfacing. Point-to-point wiring diagrams plus riser diagrams to related trades.
- 6. Coordinate: low-voltage power supply locations.
- 7. Coordinate: back-up power for doors with automatic operators.
- 8. Coordinate: flush top rails of doors at out swinging exteriors, and throughout where adhesive-mounted seals occur.
- 9. Manufacturers' templates to the door and frame fabricators.
- C. Check Shop Drawings for doors and entrances to confirm that adequate provisions will be made for proper hardware installation.
- D. Environmental considerations: segregate unused recyclable paper and paper product packaging, uninstalled metals, and plastics, and have these sent to a recycling center.

1.07 WARRANTY:

- A. Part of the respective manufacturers' regular terms of sale. Provide manufacturers' written warranties.
- B. Include factory order numbers with close-out documents to validate warranty information, required for Owner in making future warranty claims:
- C. Minimum warranties:

Locksets:	Three years
Exit Devices:	Three years mechanical
	One year electrical
Closers:	Thirty years mechanical
	Two years electrical
Hinges:	Two years
Other Hardware	Two years

1.08 COMMISSIONING:

- A. Conduct these tests prior to the request for the certificate of substantial completion:
 - 1. With installer present, test door hardware operation with climate control system and stairwell pressurization system both at rest and while in full operation.
 - 2. With the installer, access control contractor and electrical contractor present, test electrical, electronic and electro-pneumatic hardware systems for satisfactory operation.
 - 3. With installer and electrical contractor present, test hardware interfaced with fire/life-safety system for proper operation and release.

1.09 REGULATORY REQUIREMENTS:

A. Locate latching hardware between 34 inches to 44 inches above the finished floor, per 2016 California Building Code, Section 11B-404.2.7.

- 1. Panic hardware: locate between 36 inches to 44 inches above the finished floor.
- B. Handles, pull, latches, locks, other operable parts on accessible doors shall comply with 2016 C.B.C. Section 11B-309.4 and shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist. Operable parts of such hardware shall be 34" minimum and 44" maximum above finish floor or ground. Where sliding doors are in the fully open position, operating hardware shall be exposed and usable from both sides.
- C. The force for pushing or pulling open a door shall be as follows per 2016 C.B.C. Section 11B-404.2.9:
 - 1. Interior hinged doors, sliding or folding doors, and exterior hinged doors: 5 pounds (22.2 N) maximum. Required fire doors: the minimum opening force allowable by the DSA authority, not to exceed 15 pounds (66.7 N). 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.
 - 2. The force required for activating any operable parts, such as lever hardware, or disengaging other devices shall be 5 pounds (22.2 N) maximum to comply with 2016 C.B.C. Section 11B-309.4.
- D. Adjust door closer sweep periods so that from an open position of 90 degrees, the door will take at least 5 seconds to move to a point 12 degrees from the latch, measured to the landing side of the door, per 2016 California Building Code Section 11B-404.2.8.
 - 1. Spring hinges: adjust for 1.5 seconds minimum for 70 degrees to fully-closed.
- E. Smooth surfaces at bottom 10 inches of push sides of doors, facilitating push-open with wheelchair footrests, per 2016 California Building Code Section 11B-404.2.10.
 - 1. Applied kickplates and armor plates: bevel the left and right edges; free of sharp or abrasive edges.
 - 2. Tempered glass doors without stiles: bottom rail may be less than 10 inches if top leading edge is tapered 60 degrees minimum.
- F. Door opening clear width no less than 32 inches, measured from the face of frame stop, or edge of the inactive leaf of pair of doors, to door face with the door opened to 90 degrees. Hardware projection, not a factor in clear width if located above 30 inches and below 80 inches, and the hardware projects no more than 4 inches. 2016 California Building Code Section 11B-404.2.3.
 - 1. Exception: In alterations, a projection of 5/8 inch (15.9 mm) maximum into the required clear width shall be permitted for the latch side stop.
 - 2. Door closers and overhead stops: not less than 78 inches above the finished floor or ground, per 2016 California Building Code 11B-307.4.
- G. Thresholds: floor or landing no more than 0.50 inches below the top of the threshold of the doorway, per 2016 California Building Code Section 11B-404.2.5. Vertical rise no more than 0.25 inches, change in level between 0.25 inches and 0.50 inches: beveled to a slope no greater than 1:2 (50 percent slope). 2016 California Building Code Section 11B-303.2 & ~.3.
- H. Floor stops: Do not locate in the path of travel. Locate no more than 4 inches from walls, per DSA Policy #99-08 (Access).
- I. Pairs of doors with independently-activated hardware both leafs: limit swing of right-hand or right-hand-reverse leaf to 90 degrees to protect persons reading wall-mounted tactile signage, per 2016 California Building Code Section 11B-703.4.2.

- J. Door and door hardware encroachment: when the door is swung fully-open into the means-of-egress path, the doo may not encroach/project more than 7 inches into the required exit width, with the exception of door release hardware such as lockset levers or panic hardware. These hardware items must be located no less than 34-inches and no more than 48-inches above the floor/ground. 2016 California Building Code, Section 1005.7.1.
 - 1. In I-2 occupancies, latch release hardware is not permitted to project in the required exit width, regardless of its mounting height, per 2016 California Building Code, Section 1005.7.1 at Exception 1.
- K. Hardware (including panic hardware) shall not be provided with "Night Latch" (NL) function for any accessible doors or gates unless the following conditions are met: (Such conditions must be clearly demonstrated and indicated in the specifications)
 - 1. Such hardware has a "dogging" feature.
 - 2. It is dogged during the time the facility is open.
 - 3. Such "dogging" operation is performed only by employees as their job function (non-public use).

PART 2 - PRODUCTS

2.01 MANUFACTURERS:

A. Listed acceptable manufacturers: these will be considered; submit for review products with equivalent function and features of scheduled products.

ITEM:	MANUFACTURER:	ACCEPTABLE:
Hinges	(IVE) Ives	McKinney, Stanley
Continuous Hinges	(IVE) Ives	Stanley, Markar
Key System	(SCH) Schlage	District Standard
Mechanical Locks	(SCH) Schlage	District Standard
Electronic Locks	(SCE) Schlage Electronics	District Standard
Exit Devices	(VON) Von Duprin	District Standard
Closers	(LCN) LCN	District Standard
Auto Flush Bolts	(IVE) Ives	DCI, Trimco
Coordinators	(IVE) Ives	DCI, Trimco
Silencers	(IVE) Ives	Rockwood, Trimco
Push & Pull Plates	(IVE) Ives	Rockwood, Trimco
Kickplates	(IVE) Ives	Rockwood, Trimco
Stops & Holders	(IVE) Ives	Rockwood, Trimco
Overhead Stops	(GLY) Glynn-Johnson	District Standard
Thresholds	(ZER) Zero	Pemko, NGP
Seals & Bottoms	(ZER) Zero	Pemko, NGP

2.02 HINGING METHODS:

A. Drawings typically depict doors at 90 degrees, doors will actually swing to maximum allowable. Use wide-throw conventional or continuous hinges as needed up to 8 inches in width to allow the door to stand parallel to the wall for the true 180-degree opening. Advise architect if 8-inch width is insufficient.

- B. Conform to manufacturer's published hinge selection standard for door dimensions, weight, and frequency, and to hinge selection as scheduled. Where the manufacturer's standard exceeds the scheduled product, furnish the heavier of the two choices; notify Architect of deviation from scheduled hardware.
- C. Conventional Hinges: Steel or stainless steel pins and approved bearings. Hinge open widths minimum, but of sufficient throw to permit maximum door swing.
 - 1. Outswinging exterior doors: non-ferrous with non-removable (NRP) pins and security studs.
 - 2. Non-ferrous material exteriors and at doors subject to corrosive atmospheric conditions.

D. Continuous Hinges:

- 1. Pinned steel/stainless steel type: continuous stainless steel, 0.25-inch diameter stainless-steel hinge pin.
 - a. Use engineered application-specific wide-throw units as needed to provide maximum swing degree of swing; advise architect if required width exceeds 8 inches

2.03 LOCKSETS, LATCHSETS, DEADBOLTS:

- A. Mortise Locksets and Latchsets: as scheduled.
 - 1. Chassis: cold-rolled steel, handing field-changeable without disassembly.
 - 2. Universal lock case -10 functions in one case.
 - 3. Floating mounting tabs automatically adjusts to fit a beveled door edge.
 - 4. Latchbolts: 0.75 inch throw stainless steel anti-friction type.
 - 5. Lever Trim: through-bolted, accessible design, cast lever or solid extruded bar type levers as scheduled. Filled hollow tube design unacceptable.
 - a. Spindles: security design independent breakaway. Breakage of the outside lever does not allow access to inside lever's hubworks to gain wrongful entry.
 - b. Inside lever applied by screwless shank mounting no exposed trim mount screws.
 - Levers rotate up or down for ease of use.
 - 6. Furnish solid cylinder collars with wave springs. Wall of collar to cover the rim of mortise cylinder.
 - 7. Turn pieces: accessible offset turn-lever design not requiring pinching or twisting motions to operate.
 - 8. Deadbolts: stainless steel 1-inch throw.
 - 9. Electric operation: Manufacturer-installed continuous duty solenoid.
 - 10. Strikes: 16 gauge curved steel, bronze or brass with 1-inch deep box construction, lips of sufficient length to clear trim and protect clothing.
 - 11. Scheduled Lock Series and Design: Schlage L series, 03N design.
 - 12. Certifications:
 - a. ANSI A156.13, 1994, Grade 1 Operational, Grade 2 Security.
 - b. ANSI/ASTM F476-84 Grade 31 UL Listed.

- 13. Accessibility: Require not more than 5 lb to retract the latch bolt or deadbolt, or both, per CBC 2016 11B-404.2.7 and 11B-309.4.
- 14. Accepted substitutions: None

2.04 EXIT DEVICES / PANIC HARDWARE

A. General features:

- 1. Independent lab-tested 1,000,000 cycles.
- Push-through push-pad design. No exposed push-pad fasteners, no exposed cavities when operated. Return stroke fluid dampeners and rubber bottoming dampeners, plus anti-rattle devices.
- 3. Deadlocking latch bolts, 0.75 inch projection.
- 4. End caps: impact-resistant, flush-mounted. No raised edges or lips to catch carts or other equipment.
- 5. No exposed screws to show through glass doors.
- 6. Non-handed basic device design with center case interchangeable with all functions, no extra parts required to effect change of function.
- 7. Accessibility: Require not more than 5 lb to retract the latch bolt, per CBC 2016 11B-404.2.7 and 11B-309.4.
 - a. Mechanical method: Von Duprin "AX-" feature, where touchpad directly retracts the latch bolt with 5 lb or less of force. Provide testing lab certification confirming that the mechanical device is independent third-party tested to meet this 5 lb requirement.

B. Specific features:

- 1. Non-Fire Rated Devices: with cylinder dogging where specified.
- 2. Lever Trim: breakaway type, forged brass or bronze escutcheon min. 0.130-inch thickness, compression spring drive, match lockset lever design.
- 3. Accepted substitutions: None

2.06 CLOSERS

- A. Surface Closers: LCN 4041 series.
 - 1. Full rack-and-pinion type cylinder with removable non-ferrous cover and cast iron body. Double heat-treated pinion shaft, single piece forged piston, chrome-silicon steel spring.
 - 2. ISO 2000 certified. Units stamped with a date-of-manufacture code.
 - 3. Independent lab-tested 10,000,000 cycles.
 - 4. Non-sized, non-handed, and adjustable. Place closer inside building, stairs, and rooms.
 - 5. Plates, brackets and special templating when needed for interface with a particular header, door and wall conditions, and neighboring hardware.
 - 6. Interior hinged doors, sliding or folding doors, and exterior hinged doors: 5 pounds (22.2N) maximum. Required fire doors: the minimum opening force allowable by the DSA authority, not to exceed 15 pounds (66.7N). 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

- 7. The force required for activating any operable parts, such as lever hardware, or disengaging other devices shall be 5 pounds (22.2N) maximum to comply with 2016 C.B.C. Section 11B-309.4
- 8. Separate adjusting valves for closing speed, latching speed and backcheck, the fourth valve for delayed action where scheduled.
- 9. Extra-duty arms (EDA) at exterior doors scheduled with parallel arm units.
- 10. Exterior door closers: tested to 100 hours of ASTM B117 salt spray test, furnish data on request.
- 11. Exterior doors: seasonal adjustments not required for temperatures from 120 degrees F to -30 degrees F, furnish checking fluid data on request.
- 12. Non-flaming fluid, will not fuel door or floor covering fires.
- 13. Pressure Relief Valves (PRV) not permitted.
- 14. Accepted substitutions: None

2.07 OTHER HARDWARE

- A. Automatic Flush Bolts: Low operating force design.
- B. Overhead Stops: Non-plastic mechanisms and finished metal end caps. Field-changeable hold-open, friction and stop-only functions.
- C. Kick Plates: Four beveled edges, .050 inches minimum thickness, height and width as scheduled. Sheet-metal screws of bronze or stainless steel to match other hardware.
- D. Door Stops: Provide stops to protect walls, casework or other hardware.
 - 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 the overhead type.
 - 2. Locate overhead stops for a maximum possible opening. Consult with Owner for furniture locations. Minimum: 90deg stop / 95deg dead stop. Note the degree of opening in the submittal.
- E. Sound-reducing adjustable seals: coordinate lockset backsets, rim exit device strikes, and parallel arm closers. Fabricate 7ga "Z"-brackets as bridging pieces to facilitate installation. Brackets: mild carbon steel, or stainless steel.
- F. Automatic door bottoms: low operating force units. Doors with automatic door bottoms plus head and jamb seals cannot require more than two pounds operating force to open when the closer is disconnected.
 - 1. Include automatic type door bottoms, as opposed to fixed sweeps, at stairs and elevator lobbies to allow fine-tuning of pressurization systems.
- G. Thresholds: As scheduled and per details. Comply with CBC 2016 11B-404.2.5. Substitute products: certify that the products equal or exceed specified material's thickness. Proposed substitutions: submit for approval.
 - 1. Saddle thresholds: 0.125 inches minimum thickness.
 - 2. Exteriors: Seal perimeter to exclude water and vermin. Use sealant complying with requirements in Division 7 "Thermal and Moisture Protection". Minimum 0.25-inch diameter fasteners and lead expansion shield anchors, or Red-Head #SFS-1420 (or

approved equivalent) Flat Head Sleeve Anchors. Zero International's #226, National Guard Products' "COMBO" or Pemko Manufacturing's "FHSL".

- 3. Fire-rated openings, 90-minutes or less duration: use thresholds to interrupt floor covering material under the door where that material has a critical radiant flux value less than 0.22 watts per square centimeter, per NFPA 253. Use the threshold unit as scheduled. If none scheduled, include a 0.25in high 5in wide saddle in the bid, and request direction from Architect.
- 4. Fire-rated openings, 3-hour duration: Thresholds, where scheduled, to extend full jamb depth.
- 5. Plastic plugs with wood or sheet metal screws are not an acceptable substitute for specified fastening methods.
- 6. Fasteners: Generally, exposed screws to be Phillips or Robertson drive. Pinned TORX drive at high-security areas. Flathead sleeve anchors (FHSL) may be slotted drive. Sheet metal and wood screws: full-thread. Sleeve nuts: full length to prevent door compression.
- H. Silencers: Interior hollow metal frames, 3 for single doors, 4 for pairs of doors. Leave no unfilled/uncovered pre-punched silencer holes. Intent: door bears against silencers, seals make minimal contact with minimal compression only enough to effect a seal.

2.08 FINISH:

- A. Generally: BHMA 626 Satin Chromium.
 - 1. Areas using BHMA 626: furnish push-plates, pulls and protection plates of BHMA 630, Satin Stainless Steel, unless otherwise scheduled.
- B. Aluminum items: Provide closest anodized finish to match other hardware, unless otherwise noted.
- C. Door closers: factory powder coated to match other hardware, unless otherwise noted.

2.09 KEYING REQUIREMENTS:

A. Key System: Schlage Everest 29T utility-patented keyway, interchangeable core. Utility patent protection to extend at least until 2029. Key blanks available only from factory-direct sources, not available from after-market key blank manufacturers. For estimate use factory GMK charge. Initiate and conduct meeting(s) with Owner and Allegion Security & Safety Consultants representatives to determine system keyway(s), keybow styles, structure and degree of geographic exclusivity. Furnish Owner's written approval of the system; do not order keys or cylinders without written confirmation of actual requirements from the Owner. Owner/Contractor will install permanent cylinders/cores.

B. Keys

- 1. Existing factory registered master key system.
- 1. Construction keying: furnish temporary keyed-alike cores. Remove at substantial completion and install permanent cylinders/cores in Owner's presence. Demonstrate that construction key no longer operates.
- 2. Furnish 12 construction keys.
- 3. Furnish 3 construction control keys.
- C. Key Cylinders: furnish utility patented, 6-pin solid brass construction.
- D. Cylinder cores: furnish keyed at factory of lock manufacturer where permanent records are maintained. Locks and cylinders same manufacturer.
- E. Permanent keys: use secured shipment direct from point of origination to Owner.

- 1. For estimate: 3 keys per change combination, 5 master keys per group, 5 grand-master keys, 3 control keys.
- 2. For estimate: VKC stamping plus "DO NOT DUPLICATE".
- 3. Bitting List: use secured shipment direct from point of origination to Owner upon completion.

PART 3 - EXECUTION

3.01 ACCEPTABLE INSTALLERS:

A. Can read and understand manufacturers' templates, suppliers' hardware schedule, and printed installation instructions. Can readily distinguish drywall screws from manufacturers' furnished fasteners. Available to meet with manufacturers' representatives and related trades to discuss the installation of hardware.

3.02 PREPARATION:

- A. Ensure that walls and frames are square and plumb before hardware installation. Make corrections before commencing hardware installation. Installation denotes acceptance of wall/frame condition.
- B. Locate hardware per SDI-100 and applicable building, fire, life-safety, accessibility, and security codes.
 - 1. Notify Architect of code conflicts before ordering material.
 - 2. Locate latching hardware between 34 inches to 44 inches above the finished floor, per
 - 3. Locate panic hardware between 36 inches to 44 inches above the finished floor.
 - 4. Where new hardware is to be installed near existing doors/hardware scheduled to remain, match locations of existing hardware.
- C. Overhead stops: before installing, determine proposed locations of furniture items, fixtures, and other items to be protected by the overhead stop's action.

3.03 INSTALLATION

- A. Install hardware per the manufacturer's instructions and recommendations. Do not install surface-mounted items until finishes have been completed on the substrate. Set units level, plumb and true to line and location. Adjust and reinforce attachment substrate for proper installation and operation. Remove and reinstall or replace work deemed defective by Architect.
 - Gaskets: install jamb-applied gaskets before closers, overhead stops, rim strikes, etc; fasten
 hardware over and through these seals. Install sweeps across bottoms of doors before
 astragals, cope sweeps around bottom pivots, trim astragals to tops of sweeps.
 - 2. When hardware is to be attached to existing metal surface and insufficient reinforcement exists, use RivNuts, NutSerts or similar anchoring device for screws.
 - 3. Use manufacturers' fasteners furnished with hardware items or submit Request for Substitution with Architect.
 - 4. Replace fasteners damaged by power-driven tools.
- B. Locate floor stops no more than 4 inches from walls and not within paths of travel. See paragraph 2.2 regarding hinge widths, the door should be well clear of the point of wall reveal. Point of door contact no closer to the hinge edge than half the door width. Where the situation is questionable or difficult, contact Architect for direction.
- C. Core concrete for exterior door stop anchors. Set anchors in approved non-shrink grout.

- D. Locate overhead stops for minimum 90 degrees at rest and for the maximum allowable degree of swing.
- E. Drill pilot holes for fasteners in wood doors and/or frames.
- F. Lubricate and adjust existing hardware scheduled to remain. Carefully remove and give to Owner items not scheduled for reuse.

3.04 ADJUSTING

- A. Adjust and check for proper operation and function. Replace units, which cannot be adjusted to operate freely and smoothly.
 - 1. Hardware damaged by improper installation or adjustment methods: repair or replace to Owner's satisfaction.
 - 2. Adjust doors to fully latch with no more than 1 pound of pressure.
 - a. Door closer valves: turn valves clockwise until at bottom do not force. Turn valves back out one and one-half turns and begin adjustment process from that point. Do not force valves beyond three full turns counterclockwise.
 - 3. Adjust delayed-action closers on fire-rated doors to fully close from the fully-opened position in no more than 10 seconds.
 - 4. Adjust door closers per 1.9 this section.

B. Fire-rated doors:

- 1. Wood doors: adjust to 0.125 inches clearance at heads, jambs, and meeting stiles.
- 2. Steel doors: adjust to 0.063 inches minimum to 0.188 inches maximum clearance at heads, jambs, and meeting stiles.
- 3. Adjust wood and steel doors to 0.75 inches maximum clearance (undercut) above the threshold or finish floor material under the door.
- C. Final inspection: Installer to provide a letter to Owner that upon completion installer has visited the Project and has accomplished the following:
 - 1. Has re-adjusted hardware.
 - 2. Has evaluated maintenance procedures and recommend changes or additions, and instructed the Owner's personnel.
 - 3. Has identified items that have deteriorated or failed.
 - 4. Has submitted a written report identifying problems.

3.05 DEMONSTRATION:

A. Demonstrate mechanical hardware and electrical, electronic and pneumatic hardware systems, including adjustment and maintenance procedures.

3.06 PROTECTION/CLEANING:

- A. Cover installed hardware, protect from paint, cleaning agents, weathering, carts/barrows, etc. Remove covering materials and clean hardware just prior to substantial completion.
- B. Clean adjacent wall, frame, and door surfaces soiled from installation/reinstallation process.

3.07 SCHEDULE OF FINISH HARDWARE

A. See door schedule in drawings for hardware set assignments.

- B. Do not order material until submittal has been reviewed, stamped, and signed by Architect's door hardware consultant.
- C. Manufacturers and their abbreviations used in this schedule:

Abbreviation	Description
IVE	H. B. Ives
LCN	LCN Closers
SCH	Schlage Lock Company
VON	Von Duprin
ZER	Zero International

Hardware Group No. 01 For use on Door #(s):01, 02, 03

SALVAGE AND RESUE ALL EXISTING DOOR HARDWARE.

END OF SECTION

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SECTION 08 8100 GLASS AND GLAZING

PART 1 - GENERAL

1.01 SUMMARY

- A. Section includes: Exterior and interior glass and glazing, including glazing clips, channels, compound, and glazing beads, unless furnished with the frame to be glazed as indicated on the Drawings and specified herein.
- B. Related Sections:
 - 1. Division 01 General Requirements.
 - 2. Section 07 9200 Joint Sealants.
 - 3. Section 08 5113 Aluminum Windows.

1.02 REFERENCE STANDARDS

- A. California Code of Regulations, Title 24, Part 11 California Green Building Standards Code, "CAL-Green".
- B. California Code of Regulations, Title 24, Part 2, California Building Code (CBC), International Building Code with California Amendments.
- C. FS DD-G-451d Glass, Plate, Sheet, Figured (flat, for glazing, mirrors, and other uses).
- D. PT-S-00230C Sealing Compound, Synthetic Rubber base, Single Component, Chemical Curing for Caulking, Sealing and Glazing in Building Construction.
- E. NAAMM #SS-1B-68 Non-skinning Resilient Preformed Compounds Tapes, Ribbons, Beads with Release Paper.
- F. ANSI Z97.1 American National Standard for Safety Glazing Materials Used in Buildings Safety Performance Specifications and Methods of Test.
- G. FGMA Flat Glass Marketing Association
- H. 16 CFR 1201 Safety Standard for Architectural Glazing Materials.
- I. Chapter 24, Part 2, Title 24, California Code of Regulations.
- J. NFPA 80 Standard for Fire Doors and Other Opening Protectives.
- K. ASTM C1036 Standard Specification for Flat Glass.
- L. ASTM C1048 Standard Specification for Heat-Treated Glass.
- M. ASTM E2190 Standard Specification for Insulating Glass Unit Performance and Evaluation.

1.03 SUBMITTALS

- A. Submit manufacturer's standard size samples of glass units to be used for review by Architect.
- B. Submit manufacturer's literature and pertinent technical data on the products to be installed.
- C. Prepare and submit a schedule of glass and glazing components.
 - Schedule tapes, gaskets, separators and related items including the designation of areas
 and specific locations where materials and products are to be used, special instructions on
 their use and installation, and show scheduled items on shop drawings.

2. Provide detailed instructions for the installation and reglazing of glass units. Include with instructions and explanatory details, the sequence of installation, the method of installation for materials and products including the glass, glazing gaskets, setting blocks, jamb blocks, etc., the location of specific items such as the setting blocks and jamb blocks and special instructions as may be required.

D. Certifications

- 1. Certify that the following materials and products and processes conform to these Contract Documents and submit in accordance with other sections of these specifications:
 - a. Sealants
 - b. Neoprene, nylon, etc.
 - c. Glass
 - d. Compatibility of materials, finishes, methods of application.

E. CAL-Green Submittals:

- 1. Product Data VOC Limits: For adhesives, sealants, fillers, and primers, documentation including a printed statement of VOC contents, comply with requirements of Cal-Green Building Standards Code, Section 5.504.
- Low/No-VOC Paints and Coatings: Provide certification that all primers and coatings meet VOC emissions with requirements of Cal-Green Building Standards Code, Section 5.504. List manufacturer, brand, application, type (flat or non-flat), and the VOC emissions per gallon in terms of grams/liter. Include M.S.D.S. and product data sheet indicating VOC limits for each product provided.

1.04 QUALITY ASSURANCE

A. Glass Performance:

- The maximum overall size, minimum thickness, and type of glass is to conform to the applicable glass manufacturer's published recommendations for the openings or sizes indicated on the drawings, and the performance requirements specified in these specifications.
- 2. Ensure that glass and glazing components conform to governing codes and regulations.
- 3. Design glass to perform to a specified safety factor of 2.5, and sustain at maximum wind loading a statistical glass breakage of no more than eight lights in one thousand.
- B. Be responsible for the correct selection of glass including required accommodations for fire access, conditions of thermal stress, venting, wind loading and other factors which can reasonably be inferred from the drawings and location of the project.
- C. Safety Glazing: Install glass in accordance with the requirements of the Consumer Products Safety Commission regulation CPSC 16CFR-1201.

1.05 DELIVERY, STORAGE AND HANDLING

- A. Take reasonable precautions necessary to provide complete protection of glass and glazing materials before, during and after installation.
- B. In event of damages or breakage, repair or replace damaged and defective materials and products to the satisfaction of the Owner within five (5) calendar days.

1.06 GUARANTEE

A. Furnish written guarantee covering work of this Section for 5 years from the date of substantial completion. Under the terms of this guarantee, failures shall be repaired or replaced to satisfaction of the Architect and Owner without additional cost to the Owner. Under the guarantee, failures except for vandalism and malicious mischief shall be repaired at no additional cost to Owner.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Tempered Glass Standard: Comply with ASTM C1048 requirements, Quality q3.
 - 1. ALL GLASS ON PROJECT SHALL BE TEMPERED GLASS UNLESS NOTED OTHERWISE.
- B. Sealed Insulated Glass Units: Provide pre-assembled units consisting of organically sealed panes of glass enclosing a hermetically sealed dehydrated air space and complying with ASTM E2190 for performance classification indicated, as well as with other requirements specified for glass characteristics, air space sealing system, sealant, space material, corner design and desiccant.
 - For properties of individual glass panes making up units, refer to product requirements specified elsewhere in this section applicable to types, classes, kinds and conditions of glass products indicated.
 - 2. Provide tempered panes of kind and at locations indicated.
 - 3. Performance Classification per ASTM E 774: Class A
 - a. Thickness of each Pane: 1/4-inch
 - b. Air Space Thickness: 1/2-inch minimum
 - c. Total Thickness of Insulated Glass Units: 1-inch minimum
 - d. Sealing System: Manufacturer's standard.
 - e. Spacer Material: Manufacturer's standard metal.
 - f. Desiccant: Manufacturer's standard, either molecular sieve or silica gel or blend of both.
 - g. Corner Construction: Manufacturer's standard corner construction.

2.02 GLAZING

A. Sealants:

- 1. Tremco, General Electric, and Dow Corning sealant products are approved where use is documented and in accordance with the use and conditions of this project.
- 2. Compatibility and sequence of installation for sealants are to be carefully considered in design to ensure that the required cure and optimum performance are met.
- Do not allow sealants selected and used to degrade or fail under design conditions including, thermal movement (expansion and contraction), sanding water, ultra-violet exposure, aging, and other adverse time and environmental conditions.
- 4. Structural Sealants: Provide Tremco, "Spectrum II", G.E. or Dow Corning "745", or equal, approved sealant and Dow Corning "1200 RTC4V" primer or equal. Ensure acceptance by the manufacturer of product or system of construction into which glass and sealant are being installed.
- 5. Color: Black
- 6. Test sealants in accordance with ASTM C794.

- 7. Perform field adhesion tests in accordance with manufacturer's printed recommendations.
- 8. Glazing Putty: NFPA-80, paintable.
- B. Spacers: Provide extruded silicone shims, 60-70 Type A durometer.
- C. Setting Blocks: Provide neoprene 80 to 90 Type A durometer hardness type.
- D. Tape: Provide Tremco 440 tape, or other approved.
- E. Neoprene Glazing Gaskets and Air Seals:
 - Provide glazing gaskets which are extruded type with continuous interlocking projection
 to engage into the metal glass holding member, are designed to be in contact at times
 with adjacent contiguous elements during dynamic loading, building, and thermal
 movements, and provide a continuous watertight seal as required to meet the performance
 criteria.
 - 2. Roll-in and back-up gaskets are to be sized in lengths or units to provide for a minimum crowd-in of one percent to two percent, or as otherwise recommended by the manufacturer, to ensure against pullback at corners.
 - Roll-in glazing and back-up gaskets for one lite or glazed opening is to be continuous one-piece units with factory fabricated injection molded corners free of flashing and burrs.
 - Materials, recommendations, and details describing the proposed use, design, and application procedures for glass and glazing materials are to be documented and fully described on shop drawings.
 - 5. Air seal gaskets are to be continuous, closed-cell (sponge) neoprene gaskets with pressure-sensitive adhesive on one side in thickness and shore durometer hardness as required for the specified performance criteria.

2.03 SOURCE QUALITY CONTROL

- A. Tempered Glass shall not have excessive surface waves. Contractor and Inspector shall reject all tempered glass with obvious bows.
- B. Glass units are to be tongless edged, best quality, sizes and thickness required by drawings or conditions.
- C. Glass and related glass and glazing materials will be verified and coordinated with the performance requirements and be as recommended, in writing, by the applicable glass and gasket manufacturers. The type, size, thickness, and design of glass units, including dimensions, tolerances, glazing pockets, jamb and seismic blocking, glass edge clearance and frame lap, will be verified and documented.
 - 1. **Note:** The selection of the glass will take into special account the performance requirements herein specified.
- D. The edge treatment of butt-glazed glass shall be as required to ensure the full adhesion and performance of the butt-glazed sealant joint and shall be as recommended in writing by the applicable glass, sealant and gasket manufacturers.
- E. Where wire glass or fire assembly is scheduled, glaze in accordance with U.L. Building Materials, page 28A; glazing putty compound shall be per NFPA 80-6.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Remove lacquer and other coatings from glazing rabbetes. Thoroughly clean areas to receive glass and glazing materials. The installation shall be in strict accordance with recommendations of window, glass and sealant manufacturers. Glass shall be installed so that no metal-to-glass contact occurs.
- B. Installation shall be in accordance with applicable requirements of the latest edition of the "Glazing Manual" of the Flat Glass Marketing Association. Where vinyl or neoprene glazing beads or channels are used, they shall be in one piece for each edge of the glass, with corners neatly mitered and tightly fitted together.
- C. Glass shall be cut to size in the shop. Glass shall have clean-cut edges as defined by PPG Industries Technical Service Report No. 104C. Other edges will not be accepted.
- D. Glass in aluminum frames unless otherwise specified shall be "dry-glazed" using neoprene glazing channels and snap-on beads furnished by the manufacturer. Channels shall be installed so that no metal-to-glass contact occurs. Corners shall be neatly mitered to the hairline joint. Channels shall be installed so that the top of the channel is flush with the top of glazing stops and forms a neat, straight line.
- E. Before the shop or field pre-glazing of the curtain wall units, openings will be checked to see that they are square, plumb and in true plane. If found otherwise, glazing will not proceed until proper corrections are made.
- F. Perimeter clearance must be sufficient to avoid point loading and provide for jamb and seismic blocking.

3.02 TEMPERED GLASS UNITS

- A. Do not field cut or drill tempered glass units. Cut to proper size in the factory.
- B. Vertical tempering will not be allowed.

3.03 FIELD QUALITY CONTROL

A. Testing: Upon completion of installation of glass and glazing, perform water tests in accordance with industry standards for such tests, and ASTM E331, AAMA FC-1, and NAAMM. Repair leaks and re-test. Continue with tests and repairs or replacements until such time as entire installation has been tested and certifiably exhibits no water intrusion, thereby instituting five-year guarantee against such water intrusion.

3.04 CLEANING

A. Immediately prior to scheduled acceptance of work, remove protective materials and clean glass members, being careful not to use abrasive or harmful cleaning agents.

3.05 PROTECTION

A. Maintain glass in a reasonably clean condition during construction so that it will not be damaged by corrosive action and will not contribute (by wash-off) to the deterioration of glazing materials and other surfaces.

END OF SECTION

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SECTION 09 2200 LATH AND PLASTER

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes: Lath and cement plaster for exterior walls as called out on the Drawings.

1.02 RELATED SECTIONS:

- A. Division 01 General Requirements.
- B. Section 06 1000 Rough Carpentry.
- C. Section 07 9200 Joint Sealants.
- D. Section 08 5113 Aluminum Windows.

1.02 REFERENCE STANDARDS

- A. California Code of Regulations, Title 24, Part 11 California Green Building Standards Code, "CAL-Green".
- B. California Code of Regulations, Title 24, Part 2, California Building Code (CBC), International Building Code with California Amendments.
- C. ASTM C150/C150M Standard Specification for Portland Cement.
- D. ASTM C206 Standard Specification for Finishing Hydrated Lime.
- E. ASTM C847 Standard Specification for Metal Lath.
- F. ASTM C897 Standard Specification for Aggregate for Job-Mixed Portland Cement-Based. Plasters.
- G. ASTM C926 Standard Specification for Application of Portland Cement-Based Plaster.
- H. ASTM C1063 Standard Specification for Installation of Lathing and Furring to Receive Interior and Exterior Portland Cement-Based Plaster.

1.02 SUBMITTALS

A. Samples:

- 1. Submit in accordance with Section 01 3300 Submittals, samples of color and texture for Architect's review.
- 2. Color samples of aluminum channel screeds and trim.
- 3. Letter of acceptance of substrate from Plaster Contractor.

B. CAL-Green Submittals:

- Product Data VOC Limits: For adhesives, sealants, fillers, and primers, documentation including a printed statement of VOC contents, comply with requirements of Cal-Green Building Standards Code, Section 5.504.
- Low/No-VOC Paints and Coatings: Provide certification that all primers and coatings
 meet VOC emissions with requirements of Cal-Green Building Standards Code, Section
 5.504. List manufacturer, brand, application, type (flat or non-flat), and the VOC
 emissions per gallon in terms of grams/liter. Include M.S.D.S. and product data sheet
 indicating VOC limits for each product provided.

1.03 QUALITY ASSURANCE

- A. Installer Qualifications: Minimum 2 years experience in work of this Section.
- B. Comply with applicable provisions of Chapter 25, Part 2, Title 24, C.C.R.
- C. Reference Standards for application and materials: ASTM C926, ASTM C1063, NAMM Standard ML/SFA 920, ACI 524.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. Acceptable Manufacturers Metal Lath:
 - 1. CEMCO / California Expanded Products. www.cemcosteel.com
 - 2. Marino Ware Industries. www.marinoware.com
- B. Acceptable Manufacturers Plaster Materials:
 - 1. Parex USA. www.lahabrastucco.com
 - 2. Merlex Stucco. www.merlex.com
- C. Substitutions: Section 01 6200 Product Options and Substitutions.

2.02 PLASTER MATERIALS

- A. Cement: ASTM C150, Type 1.
- B. Lime: ASTM C206, Type S.
- C. Sand: ASTM C897.
- D. Water: Clean, potable.
- E. Plaster mix reinforcement: ASTM C116, glass fibers.
- F. Mixes:
 - 1. Scratch and brown coats: ASTM C926 Type C.
 - 2. Finish coat: Mix in accordance with manufacturer's instructions.

2.03 LATH AND ACCESSORIES

- A. Lath:
 - Over open (stud) framing provide 3.4 pound/sy, expanded metal wire, galvanized, paper backed at exterior locations, manufactured by Western Metal Lath, Cemco, or other approved, in accordance with ASTM C847. Provide with paper meeting FS UU-B-790, Type I, Grade B, and 16-hour resistance to moisture penetration at walls in wet or exterior areas.
 - 2. At vertical surface with sheathing (plywood) at exterior, provide two layers of 60 minute Grade D paper,. Apply self-furring continuous-grooved expanded metal lath, (dimpled shall not be used) attached with staples. Paper-back type lath shall not be used. Lath to be furred 1/4" from substrate, no exceptions. Install sample panel for approval by Architect and Inspector, demonstrating installation, attachment, and method of maintaining 1/4" furred spacing. Install products in full conformance to manufacturers' published instructions.
- B. Accessories: Provide outside corner reinforcement with welded wire corner aids. Provide control joints with galvanized steel XJ 15 joints. Provide galvanized steel No. 66 casing beads at all plaster termination except the foundation which shall receive a foundation weep screed. All trims

shall comply with the NAAMM Standard ML/SFA 920 "Guide Specifications for Metal Lathing and Furring".

- 1. Wire Staples: 14 gage by 1-3/8 inches long by 3/4- inches wide, or barbed roof nails 1-1/2 inches long with 7/16-inch head.
- 2. Hanger Wires: 8 gage
- 3. Tie Wires: 16/18 gage galvanized annealed.
- 4. Sheet Metal Items: 26 gage base screeds, runners, and expansion screeds.
- 5. Expansion joint with expansion flange, including prefabricated joints for control and expansion/contraction.
- 6. Cold-Rolled Carrying Channels: 1-1/2 inches deep, weighing 0.48 pounds per lineal foot with wire hangers spaced 36 inches on centers.
- 7. Cold-Rolled Furring Channels: 3/4-inch deep spaced at 12 inches on centers.
- 8. Drip screeds.
- C. Galvanize metal fastening devices such as staples, nails, screws, and wire ties.
- D. Bonding Agent: Provide Larsens Weldcrete, or other approved, in accordance with ASTM C932 to allow proper bond of portland cement plaster to substrate.
- E. Diamond mesh metal lath shall be fastened to steel joists or studs with # 8 self-taping sheet metal screw at 6" on-center. Screws to have galv. 1" O.D. ½" I.D. x 16 GA cut washer.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Properly prepare surfaces, substrates, and previously installed assemblies to receive plaster finish.
- B. Inspect and approve the substrate in writing prior to commencing Work. Ensure that existing surfaces are clean and free of loose and foreign material. Apply necessary surface treatments such as bonding agents when required or recommended.
- C. Lightly sandblast or acid wash existing surfaces where such treatment is recommended by the Plastering Institute, and where such treatment will not harm other surfaces or assemblies.
- D. Provide protection of materials and assemblies in place from plastering operations, surfaces or assemblies.
- E. Install two layers of 60 min grade D building paper over plywood sheathing and shear walls.

3.02 FIELD QUALITY CONTROL

A. Comply with the requirements of Section 2506A, Title 24, for support of lath:

State Building Code, Part 2, Title 24, California Code of Regulations, Section 2506A "Exterior Lath" (2506A.5) Application of Metal Plaster Bases: The application of metal lath or wire fabric lath shall be as specified in Subsection 2505A.3 and they shall be furred out from vertical supports or backing not less than 1/4-inch. Self-furring lath meets furring requirements, except when installed over plywood sheathing or similar rigid backing, except as set forth in footnote No.2, Table No.25A-B, CBC. (Footnote 2)

Where exterior lath is attached to horizontal wood supports, either of the following attachments shall be used in addition to the methods of attachment set forth in Table No.25A-C, CBC:

- 1. Secure lath to alternate supports with ties consisting of a double standard of No.18W & M gauge galvanized annealed wire at one edge of each sheet of lath. Wire ties shall be installed not less than 3-inches back from the edge of each sheet and shall be looped around stripping, or attached to an 8d common wire nail driven into each side of the joist 2-inches above the bottom of the joist or to each end of a 16d common wire nail driven horizontally through the joist 2-inches above the bottom of the joist and the ends of the wire secured together with 3 twists of the wire.
- 2. Secure lath to each support with 1/2-inch wide, 1-1/2 inches long No.9 W & M gauge ring shank, hook staple placed around a 10d common nail laid flat under the surface of the lath not more than 3-inches from edge of each sheet. Such staples may be placed over ribs of 3/8-inch rib lath or over back wire of welded wire fabric or other approved lath, omitting the 10d nails. Where no external corner reinforcement is used, lath shall be furred out and carried around corners at least one support on frame construction.
- 3. A weep screed shall be provided at the foundation plate line on all exterior stud walls. The screed shall be of a type which will allow trapped water to drain to the exterior of the building."

(End of Section 2506A.5.)

3.03 INSTALLATION

- A. Install lath with long dimension at right angles to supports.
- B. Stagger ends of lath to avoid continuous joints. Lap joints at least 2 inches. Butt lath into internal corners and reinforce angles with cornerite reinforcement, secured along edges at no more than 10 inch intervals.
- C. Attach lath to supports and side laps at 6 inches on centers maximum.
- D. Install control joints at locations shown on Drawings. Ensure a water-resistant joint
- E. Attach plastering accessories to supports using shims to provide true grounds for plaster. Wire-tie to plaster base, or nail or staple to framing members.
- F. If wood grounds are not shown, install casing beads.

3.04 COMPONENTS

- A. Coat Thickness and Amounts:
 - 1. Exterior Stucco Over Lath and Framing: Scratch, brown and two finish coats approximately 7/8-inch thick. Provide 'Medium Dash' finish coat.

3.05 APPLICATION

- A. Scratch Coats: Apply with sufficient material to completely cover 90% lath and scratch, and apply horizontal deformations.
- B. Exterior Finish Coats: Apply in two coats with an approved type of plastering machine, each coat covering surface uniformly. Apply first coat to form medium dash coat texture pattern, followed by second coat resulting in uniform color and texture throughout project. All plaster will have an integral color in the finish coat.
 - 1. Apply first coat by making several passes with nozzle to completely cover surface.
 - Apply second coat by doubling back the same day, when first coat is sufficiently dry.
- C. Refer to Title 24, Part 2, CBC, 2504A for horizontal assemblies required for plaster ceilings.

D. Mechanically mix cementitious and aggregate materials for plasters to comply with applicable referenced application standard and with recommendations of plaster manufacturer.

306 CURING

A. Moist cure the scratch coat immediately following application for 48 hours prior to application of brown coat. Moist cure brown coat immediately following application for 48 hours, followed by a five day dry cure prior to application of finish coat Do not allow scratch or brown to dry out during 48 hours moist cure period.

3.07 CUTTING AND PATCHING

A. Cut, patch, point up, and repair plaster as necessary to accommodate other work and to restore cracks, dents, and imperfections. Repair or replace work to eliminate blisters, buckles, excessive crazing and check cracking, dry outs, efflorescence, sweat out, and similar defects and where bond to the substrate has failed.

3.08 CLEANING

A. Remove temporary protection and enclosure of other work. Promptly remove plaster from door frames, windows, and other surfaces that are not to be plastered. Repair floors, walls, and other surfaces that have been stained, marred, or otherwise damaged during the plastering work. When plastering work is completed, remove unused materials, containers, and equipment and clean floors of plaster debris.

3.09 PROTECTION

A. Provide final protection and maintain conditions, in a manner suitable to installer that ensure plaster work being without damage or deterioration at time of Substantial Completion. Mask all finished surfaces that abut the finish plaster.

END OF SECTION

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SECTION 09 2900 GYPSUM WALLBOARD

PART 1 - GENERAL

1.01 SUMMARY

- A. Section includes: Gypsum board walls, taped and sanded joint treatment where required, accessories, and other materials as indicated on the Drawings and specified herein.
- B. Related Sections:
 - 1. Division 01 General Requirements.
 - 2. Section 06 1000 Rough Carpentry.
 - 3. Section 06 8316 Fiberglass Reinforced Plastic Panels.
 - 4. Section 07 9200 Joint Sealants.
 - 5. Section 10 8000 Miscellaneous Specialties: Access panels.

1.02 REFERENCE STANDARDS

- A. Work to conform to California Building Code 2016, Chapter and Title 24, Part 2, Chapter 25A, California Code of Regulations.
- B. California Code of Regulations, Title 24, Part 11 California Green Building Standards Code, "CAL-Green."
- C. Perform gypsum board systems work in strict accordance with recommendations of the following reference standards, unless otherwise specified in this section or required by local code. Keep a copy of applicable reference standards in field office for duration of project.
 - 1. ASTM C36 Specification for gypsum board.
 - 2. ASTM C475 Specification for joint treatment materials for gypsum board construction.
 - 3. ASTM C514 Specification for nails for the application of gypsum Board.
 - 4. ASTM C557 Specification for adhesives for fastening gypsum board to wood framing.
 - 5. ASTM C630 Specification for water-resistant gypsum backing board.
 - 6. ASTM C646 Specification for steel drill screws for the application of gypsum sheet material to light-gage steel studs.
 - 7. ASTM E119 Fire tests of building construction and materials.
 - 8. ASTM E413 Classification for determination of sound transmission class.
 - 9. Federal Specifications FF-N-105B Nails, brads, staples and spikes: Wire, cut and wrought.
 - 10. Federal Specifications SS-L-30D Lath and board products, gypsum.
 - 11. Federal Specifications SS-J-570B Joint compounds and tape, board.
 - 12. Gypsum Association GA-201 Using gypsum board for walls and ceilings.
 - 13. Gypsum Association GA-216 Recommended specifications for the application and finishing of gypsum board.

- 14. International Conference of Building Officials (ICBO) Uniform Building Code, Section 2511A.
- 15. Underwriters' Laboratories, Inc. (UL) Building Materials Directory.
- 16. Underwriters' Laboratories, Inc. (UL) Fire Resistance Index.

1.03 SUBMITTALS

- A. Submit under the provisions of Section 01 3300 Submittals.
- B. Submit copies of manufacturer's product information and installation instructions for each item and accessories.
- C. Cal-Green Submittals:
 - Product Data VOC Limits: For adhesives, sealants, fillers, and primers, documentation including a printed statement of VOC contents, comply with requirements of Cal-Green Building Standards Code, Section 5.504.
 - 2. Low/No-VOC Paints and Coatings: Provide certification that all primers and coatings meet VOC emissions with requirements of Cal-Green Building Standards Code, Section 5.504. List manufacturer, brand, application, type (flat or non-flat), and the VOC emissions per gallon in terms of grams/liter. Include M.S.D.S. and product data sheet indicating VOC limits for each product provided.

1.04 DELIVERY, STORAGE AND HANDLING

- A. Deliver materials in manufacturer's unopened containers, packages or bundles identified with manufacturer's name, brand, type, and grade clearly marked.
- B. Store in dry areas and protect from dampness and deterioration.
- C. Protect ready-mixed products from freezing.
- D. Protect metal products from rusting.

1.05 PROJECT CONDITIONS

- A. Do not install board products unless installation areas comply with minimum temperature and ventilation requirements recommended by manufacturer. As a minimum, provide temperatures above 50 degrees F. during and after installation.
- B. Under slow drying conditions, allow additional drying time between coats of joint treatment.
- C. Protect installed materials from drafts during hot, dry weather.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. Provide gypsum board materials manufactured by one of the following:
 - 1. CertainTeed Gypsum: www.certainteed.com
 - 2. Continental Building Products: www.continental-bp.com
 - 3. GP Gypsum: www.gp.com
 - 4. National Gypsum: www.nationalgypsum.com
 - 5. USG: www.usg.com
- B. Substitutions: Refer to Division 01 General Requirements.

2.02 GYPSUM BOARD:

- A. Standard Gypsum Board: ASTM C1396; 48 inches wide x thickness indicated, tapered edge, ends square cut, maximum permissible lengths.
- B. Water-Resistant Gypsum Board: ASTM C1396; 48 inches wide x thickness indicated, water-resistant; apply to walls to receive fiber-reinforced panels and walls at custodial closets and locations shown on Drawings..

2.03 ACCESSORIES

- A. Provide gypsum board accessories in accordance with GA-216, and as shown on drawings and specified.
- B. Provide accessories such as corner beads and edge trim as metal fabrications. Plastic materials will not be acceptable.
- C. Provide suspension system for applications of gypsum board using the components required by drawings, and in accordance with ASTM C645.
- D. Fasteners: Corrosion-resistant conforming to ASTM C1002.
 - 1. Wood Studs: Minimum 1-1/4 inch, Type W, bugle head.
- E. Adhesive: Provide type manufactured by US Gypsum or other approved, appropriate for attaching board to dissimilar substrate materials shown on drawings.
 - 1. Gypsum board to gypsum board-Durabond 600.
 - 2. Gypsum board to coreboard or sound deadening board-Durabond 500.
 - 3. Gypsum board to cementitious substrates-Durabond 90.
 - 4. Gypsum board to expanded polystyrene or rigid urethane insulation-Durabond 500.

F. Joint Treatment:

- 1. Tape-perforated, conforming to ASTM C475 or FS-SS-J-570, Type II.
- 2. Compound-powdered or ready-mixed conforming to ASTM C475 or FS-SS-J-570, Type I. Taping and topping joint compound or all-purpose joint compound may be used.
- G. Shims: Provide for between studs and gypsum board for level and true wall plane.

2.04 OTHER MATERIALS

- A. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the acceptance of the Architect.
- B. Metal Trim: The Drawings do not show all locations and requirements for metal trim. Carefully study the Drawings and the installation, and provide all metal trim normally recommended by the manufacturer of the gypsum wallboard accepted for use in this Work.

PART 3 - EXECUTION

3.01 PREPARATION

A. Examine the areas and conditions under which Work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.

3.02 INSTALLATION

A. Install gypsum board in accordance with the Drawings and with the separate boards in moderate contact but not forced into place.

- B. At internal and external corners, conceal the cut edges of the boards by the overlapping covered edges of the abutting boards.
- C. Stagger the boards so that corners of any four boards will not meet at a common point except in vertical corners.
- D. Install control joints at walls and partitions at changes in backup material, maximum 30 feet on center, and above one jamb of openings in partitions.
- E. Walls: Install the gypsum wallboard to study at right angles to the furring or framing members.
 - 1. Make end joints, where required, over framing or furring members.
 - 2. Install gypsum wallboard over full height of all stud walls.

F. Attaching:

- 1. Drive the specified screws with clutch-controlled power screwdrivers, spacing the screws 12 inches on centers at ceilings and 16 inches on center at walls.
- 2. Where framing members are spaced 24 inches apart on walls, space screws 12 inches on centers.
- 3. Attach double layers in accordance with the pertinent codes and the manufacturer's recommendations as accepted by the Architect.
- 4. Attach to wood as required by governmental agencies having jurisdiction.

G. Access Doors:

- 1. By careful coordination with the Drawings and with the trades involved, install the specified access doors where required.
- 2. Anchor firmly into position and align properly to achieve an installation flush with the finished surface.

3.03 JOINT TREATMENT

- A. Treat joints and fasteners in gypsum board in accordance with GA-214.
- B. Inspect areas to be joint treated, verifying that the gypsum wallboard fits snugly against supporting framework.
- C. In areas where joint treatment and compound finishing will be performed, maintain a temperature of not less than 55 degrees for 24 hours prior to commencing the treatment, and until joint and finishing compounds have dried.
- D. Apply the joint treatment and finishing compound by machine or hand tool.
- E. Provide a minimum drying time of 24 hours between coats, with additional drying time in poorly ventilated areas.
- F. Embedding Compounds:
 - 1. Apply to gypsum wallboard and fastener heads in a thin uniform layer.
 - 2. Spread the compound not less than 3 inches wide at joints, center the reinforcing tape in the joint, and embed the tape in the compound. Then spread a thin layer of compound over the tape.
 - 3. After this treatment has dried, apply a second coat of embedding compound to joints and fastener heads, spreading in a thin uniform coat to not less than 6 inches wide at joints, and feather edged.

- 4. Sandpaper between coats as required.
- 5. When thoroughly dry, sandpaper to eliminate ridges and high points.

G. Finishing Compounds:

- 1. After embedding compound is thoroughly dry and has been completely sanded, apply a coat of finishing compound to joints and fastener heads.
- 2. Feather the finishing compound to not less than 12 inches wide.
- 3. When thoroughly dry, sandpaper to obtain a uniformly smooth surface, taking care not to scuff the paper surface of the wallboard.

3.04 WALL FINISH

A. Levels of Finish:

- 1. Surfaces in janitor closets, storage closets and utility rooms: Level 1 finish.
- 2. Surfaces to receive tile, tile, stone and fiber-reinforced panel: Level 2 finish.
- 3. Surfaces to receive flat and eggshell paints and wallcoverings: Level 4 finish.
- 4. Surfaces to receive semi-gloss paints: Level 5 finish.

3.05 CORNER TREATMENT

A. Internal Corners: Treat as specified for joints, except fold the reinforcing tape lengthwise through the middle and fit neatly into the corner.

B. External Corners:

- 1. Install the specified corner bead, fitting neatly over the corner and securing with the same type fasteners used for installing the wallboard.
- 2. Space the fasteners approximately 6 inches on centers, and drive through the wallboard into the framing or furring member.
- 3. After the corner bead has been secured into position, treat the corner with joint compound and reinforcing tape as specified for joints, feathering the joint compound out from 8 inches to 10 inches on each side of the corner.

3.06 CLEANUP

- A. In addition to other requirements for cleaning, use necessary care to prevent scattering gypsum wallboard scraps and dust, and to prevent tracking gypsum and joint finishing compound onto floor surfaces.
- B. At completion of each segment of installation in a room or space, promptly pick-up and remove from the working area all scrap, debris, and surplus material of this Section.

END OF SECTION

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SECTION 09 6723 RESINOUS FLOORING

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. Resinous flooring system as shown on the drawings and in schedules.
- B. Related Sections:
 - 1. Section 03 3000 Cast-in-Place Concrete.
 - 2. Section 06 8316 Fiberglass Reinforced Panels.

1.03 SUBMITTALS

- Product Data: Technical data sheet.
- B. Color Charts: Manufacturers standard color options.
- C. Samples: Minimum of two (2) samples 3 x 3-inch square of the specified system.
- D. Installer References: Submit five (5) projects with a minimum of five (5) years of age. Include manufacturers approved installer certificate.

1.04 QUALITY ASSURANCE

- A. Manufacturer: 10 years experience in the production of specified resinous flooring system.
- B. Applicator: Manufacturers approved installer with 5-years of documented experience in resinous flooring installations.
- C. Mock-Up Meeting: Install 100 square foot mock-up on site in location as directed by Architect. Owner, Architect and Installer to review color, slip resistance, floor texture, coving and slope to drain requirements. Mock-up may remain part of the work when approved in writing by Architect.

1.05 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials in factory sealed packaging, clearly identified product type and batch number.
- B. Store materials at 60 to 85 degrees F, out of direct sunlight and in accordance with the manufacturer's recommendations and relevant health and safety regulations.

1.06 WARRANTY

A. Installer to provide a 5-year installation defects and workmanship warranty.

PART 2 – PRODUCTS

2.01 MANUFACTURER

- A. Provide Sika Corporation, 201 Polito Avenue, Lyndhurst, HJ, Phone: (201) 933-8800 www.sikafloorusa.com
- B. Substitutions: Refer to Division 01 General Requirements.

2.02 PRODUCT REQUIREMENTS

- A. Description: Three-component, trowelable self-leveling, polyurethane cementitious concrete floor system at 3/16-inch nominal thickness with chemical resistant topcoat. System shall be thermal shock, chemical, impact and abrasion resistance for long term cleaning and wear resistance. Floor to be tolerant to concrete moisture emission and relative humidity levels with no requirements for slab sealing.
 - 1. Color as selected by Architect.
- B. Topping: Sikafloor 22NA PurCem
 - 1. Compressive Strength: minimum of 5,800 psi at 28 days, ASTM C597.
 - 2. Tensile Strength 1,045psi, ASTM C307.
 - 3. Hardness: 80 85 Shore D, ASTM D2240.
 - 4. Thermal Conductivity: 6.5 Btu, ASTM C518.
 - 5. Softening Point: 266 degrees F.
 - 6. Softening Point: 266 degrees F.
 - 7. Co-efficient of Friction: greater than 0.80, ASTM D1894.
 - 8. Impact Resistance: 5.02 ft lb at 1/8inch of thickness, ASTM D2794.
 - 9. Abrasion Resistance: 0.110 g loss, CS-17 wheel, 1,000g/1,000 cycles, ASTM D4060.
- C. Grout Coat: Sika 264, two-part epoxy
 - 1. Elongation: 8.3%, ASTM D638
 - 2. Tensile Strength: 4,902psi, ASTM D638
 - 3. Compressive Strength: 7,426psi, ASTM C579
 - 4. Hardness: 82, ASTM D2240
 - 5. Water Absorption: 0.05% at 2 hours of boiling, ASTM C413
- D. Chemical Resistant Topcoat: SikaFloor 315N aliphatic polyurethane
 - 1. Hardness: 73 78, ASTM D2240
 - 2. Tensile Strength: 4,641psi, ASTM D638.
 - 3. Water Absorption: 0.68% at 2 hours of boiling, ASTM C413.
 - 4. Gloss Level: 90, ASTM D523.
 - 5. Coefficient of Friction: Up to 0.62 wet, ANSI-NFSI B101.3

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Examine substrates in accordance with manufacturers requirements for a warranted installation.
- B. Installation deems acceptances of on site conditions.

3.02 PREPARATION

A. Remove contaminates and mechanically prepare concrete surface to an CSP 4-5 profile from wall to wall edge to expose absorbent substrate.

- 1. All outside edges which do not terminate against a wall or curb must be keyed to avoid featheredges. All through floor penetrations such as drains and trenches required a keyed edge that maintains a uniform 3/16 inch thickness.
- 2. Cracks and joints (non-moving) greater than 1/8 inch wide are to be cleaned and prepared as required by manufacturer.

3.03 APPLICATION

- A. Install materials in accordance with manufacturers instructions to a nominal thickness of 3/16 inch.
- B. Install negative air to ventilate spaces during installation process.
- C. Broadcast aggregates into the wet resin following manufacturers recommended lbs/sf.
 - 1. Allow material to fully cure. Vacuum, sweep and/or blow to remove all loose chips.
- D. Refer to drawings for coving requirements. Install a minimum a minimum of 6-inch cove base from wall to wall edge as directed by Owner and Architect.
- E. Refer to drawings for slope to drain requirements. Maintain a minimum 1/4-inch per 10 lineal feet slop to drain.

3.04 FIELD QUALITY CONTROL

- A. Core test installed system to verify floor thickness as directed by Owner and Architects.
 - 1. Repair and replace cores to match existing floor color and elevation at no cost to Owner.

3.05 CLEANING AND PROTECTION

- A. Protect from damage and contamination for a period of 7-days after installation.
- B. Install and maintain temporary floor protection until Substantial Completion or as direct by Owner and Architect.

END OF SECTION

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SECTION 10 1400 SIGNS

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes: Room identification (door) signs and code-required informational signs, except exit signs, as indicated on the Drawings.

1.02 SUBMITTALS

- A. Provide all submittals in accordance with the requirements of Division One of the Specifications
- B. Product Data: Submit manufacturer's technical data related to materials, component dimensions, profiles, finishes, and installation.
- C. Shop Drawings: Submit shop drawings for fabrication and erection of site signs. Show anchors, grounds, reinforcement, accessories, layout, and installation details.
- D. Samples: Submit a sample of each product and material indicating color, finish, pattern, and texture.
 - 1. Submit samples of each color and finish of exposed materials and accessories required for specialty signs.
 - 2. Submit one full-size sample sign of type, style, and color specified, including method of attachment. If accepted, the sample will become part of the job.

1.03 QUALITY ASSURANCE

- A. All signage shall conform to requirements of CBC Sections 11B-703. In addition to complying with pertinent codes and regulations, comply with industry and trade standards normally associated with this product or material.
- B. Design Data: Design, fabricate, and install exterior signs to withstand a wind pressure of 100 mph on the total sign area in all directions.
- C. Mock-up: Construct full-size mock-up, in a medium of supplier's choice, of school site sign for approval.

1.04 DELIVERY, STORAGE AND HANDLING

A. Protect signs components and surfaces against damage during transportation and unloading.

1.05 WARRANTY

A. Provide written warranty to maintain, repair and replace products and materials for one year following acceptance without additional cost to Owner.

1.06 DESIGN / REGULATORY REQUIREMENTS

- A. Signage and Graphics:
 - 1. Raised characters shall comply with CBC Section 11B-703.2
 - a. **Depth:** Raised characters shall be 1/32 inch (0.8 mm) minimum above their background and shall be san serif uppercase and be duplicated in Braille. *CBC* Section 11B-703.2

- b. **Height:** Character height measured vertically from the baseline of the character shall be 5/8 inch (15.9 mm) minimum and 2 inches (51 mm) maximum based on the height of the uppercase letter "I". *CBC Section 11B-703.2.5*
- c. Finish and contrast: Characters and their background shall have a nonglare finish. Characters shall contrast with their background with either light characters on a dark background or dark characters on a light background. CBC Section 11B-703.5.1 Finish and contrast
- d. Proportions: Shall be selected from fonts where the width of the uppercase letter "O" is 60% minimum and 110% maximum of the height of the uppercase letter "I". Stroke thickness of the uppercase letter "I" shall be 15% maximum of the height of the character. CBC Sections 11B-703.4 and 11B-703.6
- e. **Character Spacing:** Spacing between individual tactile characters shall comply with *CBC Sections 11B-703.2.7 and 11B-703.2.8*
- f. **Braille:** Shall be contracted (Grade 2) and shall comply with *CBC Sections* 11B-703.4. Braille dots shall have a domed and rounded shape and shall comply with *CBC Table and Figure 11B-703.3.1*
- g. **Mounting height:** A tactile sign shall be located 48" minimum to the baseline of the lowest Braille cells and 60" maximum to the baseline of the highest line of raised characters above the finish floor or ground surface.
- h. **Mounting location:** A tactile sign shall be located on the approach side, as one enters or exits rooms or space, and be reached within 0" of the required clear floor space per *CBC Section and Figure 11B-703.4.2* as follows:
 - (1) A clear floor space of 18"x18" minimum, centered on the tactile characters, shall be provided beyond the arc of any door swings between the closed position and 45-degree open position.
 - (2) On the wall at the latch side of a single door.
 - (3) On the inactive leaf of a double door with one active leaf.
 - (4) On the wall at the right side of a double door with two active leaves.
 - (5) On the nearest adjacent wall where there is no wall space at the latch side of a single door or no space at the right side of a double door with two active leaves.
- i. **Visual Characters:** Shall comply with *CBC Section 11B-703.5* and shall be 40" minimum above finish floor or ground.
- j. **Pictograms:** Shall comply with *CBC Section 11B-703.6*.
- k. **Symbols of accessibility:** Shall comply with *CBC Section 11B-703.7*.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. Provide products from Mohawk Sign Systems, ABC Architectural Signing System Division of Nelson-Harkins Industries, ASI Sign Systems, The Supersine Company, or approved equivalent.
- B. Substitutions: Refer to Division 01 General Requirements.

2.02 MATERIALS

- A. Door Signs, Building Signs, Entrance Signs and all other signs unless noted otherwise: Aluminum with baked enamel finish. Engraved areas shall be filled with contrasting color paint.
- B. Toilet Room Door Signs: Acrylic.

2.03 SIGNS

- A. Door Signs: 1/8-inch satin matte finish metal, sizes per Drawings, each to bear a room number, and a 16-letter room name. Provide one per each door (door-pairs count as one door for signage purposes).
 - 1. Graphics: Helvetica Medium text 1" high I, X, O as required by section 1.06,A, accompanied by grade 2 Braille; size, position and copy as shown on Drawings; colors to be selected. Contracted Grade 2 Braille shall be used wherever Braille symbols are specifically required by pertinent portions of the California Braille Code requirements. Dots shall be 1/10 inch (2.54 mm) on centers in each cell with 2/10 inch (5.08 mm) space between cells. Dots shall be raised a minimum of 1/40 inch (0.635 mm) above the background.
 - 2. Mounting to Other Surfaces: Sign shall be bonded to a 1/8-inch masonite panel for dimensional stability, with mounting fasteners set-in 1/2-inch from the edges of the sign plaque and mechanically mounted to the wall surface using one-way tamper-proof screws, four (4) per sign. Locate as shown on Drawings.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. General: Locate signs where indicated on Drawings, or where required by Title 24 CBC, using mounting methods appropriate to the application and in compliance with the manufacturer's instructions.
- B. Install signs level, plumb, and at the required height.
- C. Wall and Door Mounted Signs: Attach signs to the substrate with tamper-proof screws at each corner.
 - 1. Smooth, Non-porous Surfaces: Use double-sided foam tape and liquid silicone adhesive.
 - 2. Irregular, Porous, or Vinyl-Covered Surfaces: Use one-way tamperproof screws, painted to match signs, in pre-drilled holes. Provide adequate spaces behind signs so signs are in a plumb, square, level plane.
 - 3. Brick, Masonry, Plaster, and Concrete Surfaces: Use one-way screws, painted to match signs, in predrilled holes; one at each corner, and set in a liquid adhesive. Provide adequate spaces behind signs so signs are in a plumb, square, level plane.

3.02 CLEANING

A. Clean soiled sign surfaces with materials that will not damage signs.

END OF SECTION

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SECTION 10 4400 FIREFIGHTING SPECIALTIES

PART 1 - GENERAL

1.01 SUMMARY

- A. Section includes: Fire extinguishers and fire extinguisher cabinets as indicated on the Drawings and specified herein.
- B. Related Work:
 - 1. Division 01 General Requirements.
 - 2. Section 09 2900 Gypsum Wallboard.

1..02 SUBMITTALS

- A. Provide materials list of items proposed to be provided.
- B. Submit data sufficient to demonstrate compliance with specifications and drawing requirements.
- C. Submit shop drawing and catalog cuts of items to be provided. Manufacturer or producer's standard drawings and technical information may be acceptable where complete enough to determine acceptability.
- D. Submit samples of products and materials where options of color, finish, pattern or texture exist.

1.03 QUALITY ASSURANCE

- A. Products and materials to be provided are to be from manufacturers and producers regularly engaged full-time in the manufacture or production of this and similar items, with a history of successful manufacture or production acceptable to the Owner.
- B. In addition to complying with pertinent codes and regulations, comply with industry and trade standards normally associated with this product or material, except where specified product or material is superior in quality to industry and trade standards.
- C. Comply with the requirements from the C.F.C. and Title 19, C.C.R. and CBC 2016 C.C.R.

1.04 DELIVERY, STORAGE AND HANDLING

- A. Deliver products and materials to the project; and store in a safe, dry place with shop-supplied protection and labeling intact and legible until set, applied, or installed.
- B. Use reasonable means necessary to protect products and materials before, during, and after installation.
- C. In event of damage, regardless of responsibility and culpability, make repairs and replacements necessary to satisfaction of Owner, and at no additional cost to Owner.

1.05 WARRANTY

A. Provide Owner with a written warranty as a condition of work acceptance, signed by Contractor and Installer (where applicable), agreeing to maintain, repair and/or replace products and materials for one year following acceptance, and without additional cost to Owner.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Fire Extinguisher Cabinets: Larsen's Manufacturing Company, Model V2709SM, Break Glass, "Clear Vu" recessed cabinet or equal by Potter-Roemer, Amerex Corporation, or J. L Industries. With frameless clear acrylic bubble with a chrome plated pull knob, magnetic catch, and continuous piano hinge which matches the trim material. Provide pressure sensitive decals or paint red letters, 1-inch high, reading:

FIRE EXTINGUISHER

Small instruction letters reading:

"In Case of Fire, Break Glass and

Open Door from Inside".

Equip door with keyed-alike Yale tumbler locks with trip-bar-release inside.

B. Extinguishers: Multipurpose Dry-Chemical Thpe in Steel Container: UL-rated 2-A:10-B:C, 5 lb. nominal capacity, with Monoammonium phosphate-based dry chemical in an enameled-steel container. Comply with the requirements of Title 19, Public Safety, California Code of Regulations - tested and fully charged.

PART 3 - EXECUTION

3.01 WORKMANSHIP

A. Install equipment in strict accordance with the manufacturer's instructions. Handle shall be at +48 inches AFF.

3.02 CLEANING

A. After completion, clean up and remove resultant debris from the site. Keep areas clean during the entire operation and leave spaces broom clean.

END OF SECTION

SECTION 10 8000 MISCELLANEOUS SPECIALTIES

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes: Access panels as indicated on the Drawings and specified herein.
- B. Related Sections:
 - 1. Division 01 General Requirements.
 - 2. Section 06 8613 Fiberglass Reinforced Panels.
 - 3. Section 09 2900 Gypsum Wallboard.

1.02 SUBMITTALS

- A. Provide material list of items proposed to be provided.
- B. Submit data sufficient to demonstrate compliance with specifications and drawing requirements.
- C. Submit shop drawings and catalog cuts of items to be provided. Manufacturer's or producer's standard drawings and technical information may be acceptable where complete enough to determine acceptability.
- D. Submit samples of products and materials where options of color, finish, pattern, or texture exist.

1.03 QUALITY ASSURANCE

- A. Products and materials to be provided are to be from manufacturers and producers regularly engaged full time in the manufacture of production of this and similar items, with a history of successful manufacture or production acceptable to the Owner.
- B. In addition to complying with pertinent codes and regulations, comply with industry and trade standards normally associated with this product or material, except where specified product or material is superior in quality to industry and trade standards.

1.04 DELIVERY, STORAGE AND HANDLING

- A. Delivery products and materials to the project; and store in a safe, dry place with shop-supplied protection and labeling intact and legible until set, applied or installed.
- B. Use reasonable means necessary to protect products and materials before, during, and after installation.
- C. In event of damage, regardless of responsibility and culpability, make repairs and replacements necessary to satisfaction of Owner, and at no additional cost to Owner.

1.05 WARRANTY

A. Provide Owner with a warranty as a condition of work acceptance, signed by Contractor and installer (where applicable), agreeing to maintain, repair and/or replace products and materials for one year following Notice of Completion, and without additional cost to Owner.

PART 2 - PRODUCTS

2.01 ACCESS DOORS

A. Manufacturers:

- 1. Hart & Cooley Inc., (Milcor); Grand Rapids, MI; tel: (800) 624-8642; email: jonathan.d.blackwell@hartcool.com; web: www.milcorinc.com
- 2. Acudor, Las Vegas, NV; tel: (702) 644-8710; web: www.acudor.com.
- B. Wall Panels shall be provided where shown on Drawings with following type doors:
 - 1. Flush Access Panel:
 - a. Size: As indicated on Drawings.
 - b. Door: 16 ga. cold rolled steel.
 - c. Frame: 16 ga. cold rolled steel. Frame to be provided with pre-formed mounting holes 3/16 " diameter at 4" spacing. Inner frame included to allow latching.
 - d. Hinge: Concealed spring hinges open to 175° for complete access without allowing the door to impact the wall. Quantity varies per door panel size. Extracting pin from hinge leaf attached to panel permits panel removal.
 - e. Latch: Screwdriver operated cam latch. Quantity varies per door panel size.
 - f. Finish:
 - (1) Gypsum Board Applications: Prime to paint. Finish Paint to match wall.
 - (2) FRP Applications: No. 3 mill finish stainless steel.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Install miscellaneous specialty items in accordance with shop and installation drawings, and in compliance with written instructions from the manufacturer.

END OF SECTION

SECTION 11 40 00 FOODSERVICE EQUIPMENT

PART 1 - GENERAL

1.01 SUMMARY

- A. Foodservice Equipment, including storage, preparation and serving equipment, as indicated on the Foodservice Equipment drawings and in ARTICLE 3.06 EQUIPMENT SCHEDULE, herein. The Foodservice Equipment drawings form part of these specifications.
- B. Stainless steel fabrications, including countertops, cabinetry and corner guards
- C. Plumbing, including faucets, drains and fittings for sinks built into Foodservice Equipment
- D. Exhaust Hoods and related Ventilation
- E. Walk-In Cooler and Freezer

1.02 RELATED SECTIONS

- A. Division 1 Section Product Requirements: Conditions for acceptance of products by manufacturers and for substitutions. Unless specifically noted, no substitutions will be considered.
- B. Division 1 Section Warranty
- C. Division 3 Section Cast-In-Place Concrete: Concrete curbs, pads and depressions
- D. Division 5 Section Metal Fabrications: Metal supports and anchors to concrete and masonry
- E. Division 7 Section Joint Sealers/Sealants: Joint sealing for weather tightness, waterproofing and acoustical seals
- F. Divisions 22 & 23 Section Basic Mechanical Requirements: General requirements, in addition to those specified, as applicable to plumbing, fire protection and ventilating work associated with foodservice equipment
- G. Divisions 22 & 23 Section Supports, Anchors and Seals: General requirements for supports and anchors for pipe and duct systems for foodservice equipment
- H. Division 26 Section Basic Electrical Requirements: General requirements, in addition to those specified, as applicable to electrical work associated with foodservice equipment

1.03 REFERENCE STANDARDS

- A. ASME BPVC-IV Boiler and Pressure Vessel Code, Section IV Rules for Construction of Heating Boilers; 2016.
- B. ASTM A1011/A1011M Standard Specification for Steel, Sheet and Strip, Hot-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, and Ultra-High Strength; 2016.
- C. ASTM A554 Standard Specification for Welded Stainless Steel Mechanical Tubing; 2016.
- D. ASTM A653/A653M Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2016.
- E. ASTM A666 Standard Specification for Annealed or Cold-Worked Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar; 2016.

- F. ASTM A924/A924M Standard Specification for General Requirements for Sheet Steel, Metallic-Coated by the Hot-Dip Process; 2016.
- G. ASTM B209 Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate; 2016.
- H. ASTM B221 Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes; 2016.
- I. ASTM C920 Standard Specification for Elastomeric Joint Sealants; 2016.
- J. NFPA 54 National Fuel Gas Code; 2016.
- K. NFPA 70 National Electrical Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
- L. NFPA 96 Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations; 2016.
- M. NHLA G-101 Rules for the Measurement & Inspection of Hardwood & Cypress; 2016.
- N. NSF 2 Food Equipment; 2016.
- O. NSF 51 Plastic Materials and Components Used in Food Equipment; 2016.
- P. NSF 7 Commercial Refrigerators and Freezers; 2016.

1.04 SUBMITTALS

- A. General: The Foodservice Design Consultant's design documents are not acceptable as submittal set.
 - 1. Submit electronic version of each Drawing document. Prepare drawings at the following minimum scales:

a. Plans 1/4-inches = 1-foot-0-inches
 b. Elevations 1/2-inches = 1-foot-0-inches
 c. Sections 1/2-inches = 1-foot-0-inches

- 2. Submit electronic set of Product Data.
- 3. Forward complete submittal package to expedite review and avoid construction delay. Incomplete submittals will not be reviewed.
- 4. After return of reviewed submittal, make revisions as necessary and resubmit as required.
- 5. Submit certification of operational tests per PART 3.2 FIELD QUALITY CONTROL, herein.

B. Drawings:

- 1. Submit dimensioned rough-in drawings of the project site showing Plumbing, HVAC and Electrical Service requirements. Drawings to indicate rough-in data for services based on specified equipment. Provide final exact locations, dimensions and characteristics of service and connections to suit requirements of Foodservice Equipment to be provided.
- 2. Submit dimensioned fabrication drawings for custom fabricated equipment including plans, elevations, and sections, showing materials and gauges used.
- 3. Wiring Diagrams: Submit details of wiring for power and control systems; differentiate between Manufacturer Installed wiring and Field Installed wiring.

C. Product Data:

1. Cover Sheet: The Cover Sheet must contain the following information to be valid and complete:

- a. Item number
- b. Manufacturer
- c. Model number
- d. Quantity
- e. Performance data
- f. Construction methods and materials
- g. Furnished accessories
- h. Installation methods and instructions, including curbs, legs, casters, etc.
- i. Power and fuel requirements with BTU ratings
- j. Water and drainage requirements, including required PSI
- k. Service connection requirements
- 1. Exterior finishes
- m. Coordination notes to the Contractors not within the FSEC's scope of work
- 2. Cut Sheets: A catalog Cut Sheet or brochure of all stock manufactured equipment (buyouts) shall be collated with the aforementioned cover sheets.
 - a. Cut Sheet shall be an original or first generation copy.
 - b. Fax copies will not be accepted.
 - c. If a Cut Sheet or brochure is not obtainable for a specific buy-out item, insert a filler sheet with all required information in typewritten form.
- 3. Maintenance Data: Provide operation manuals and maintenance data for Foodservice Equipment for inclusion in the Operation and Maintenance Manual.
- 4. For District Furnished Equipment: The Contractor shall be responsible for providing the operation manuals and maintenance data. The Contractor shall coordinate with the District who will receive District Furnished Equipment.
- D. Samples: Submit 8-inch squares of materials and 12-inch lengths of running members and trim for all exposed finishes, and for custom fabricated equipment.

1.05 QUALITY ASSURANCE

- A. Manufacturers' Qualifications: Firms shall have been regularly engaged in the manufacture of Foodservice Equipment of the types, capacities, and sizes required, whose products have been in satisfactory use in similar service for no fewer than five (5) projects.
- B. Installer's Qualifications: Installer shall have completed no fewer than five (5) Foodservice Installations similar in material, design, and extent to that indicated for this Project, which have resulted in satisfactory in-service performance.
- C. Codes and Standards:
 - 1. NSF Standards: Comply with applicable National Sanitation Foundation (NSF) standards and recommended criteria including NSF 2 and NSF 7. Provide each principal item of Foodservice Equipment with a NSF Seal of Approval.
 - 2. UL Labels: Provide Underwriters Laboratories, Inc. (UL) labels on prime electrical components of Foodservice Equipment. Provide UL "recognized marking" on other items with electrical components, signifying listing by UL, where available.
 - 3. ANSI Standards: Comply with applicable American National Standards Institute (ANSI) standards for electric-powered and gas-burning appliances, for piping to compressed-gas cylinders, and for plumbing fittings including vacuum breakers and air gaps to prevent siphonage in water piping.

- 4. NFPA Codes: Install Foodservice Equipment in accordance with the following National Fire Protection Association (NFPA) codes:
 - a. NFPA 54 National Fuel Gas Code.
 - b. NFPA 70 National Electrical Code current adopted edition with State amendments.
 - c. NFPA 96 Removal of Smoke and Grease-Laden Vapors from Commercial Cooking Equipment.
- 5. ASME Boiler Code: Construct steam-generating and closed steam-heating equipment to comply with American Society of Mechanical Engineers (ASME BPVC-IV) Boiler and Pressure Vessel Code; Section IV for units not exceeding 15 psi or 250 degrees F, or Section I for higher pressure/temperature units.
- 6. Refrigeration: Use current refrigeration on all self-contained and remote refrigerated items including, but not limited to ice machines, refrigerators and freezers. The refrigerant shall be current, new (not recycled), and readily available for a minimum of ten (10) years. For further clarification refer to PART 2.6 REFRIGERATION EQUIPMENT, herein.

7. Accessibility

- a. Where provided, check-out aisles, sales counters, food service lines, queues, and waiting lines shall comply with CBC Section 11B-227 and 11B-904.
- b. Foodservice aisles shall be a minimum of 36 inches wide.
- c. The top of tray slides shall be 28 inches minimum and 34 inches maximum above the finish floor or ground.
- d. Foodservice equipment required to be accessible shall conform to all reach requirements in CBC Figures 11B-308.2.1 11B-308.3.2 (CBC Section11B-308).
- 8. Space and elements within foodservice employee work areas shall meet the requirements of CBC Section 11B-203.9.
- 9. Lockers shall have latch and locking hardware that does not require tight grasping, tight pinching, or twisting of the wrist to operate. Provide shelf and pole at 48" max AFF and lower shelf at 15" min AFF (Reach requirements). Provide AT LEAST 5% of total lockers BUT NO FEWER THAN ONE OF EACH TYPE OF LOCKERS SHALL BE ACCESSIBLE per CBC Section 11B-811.
- 10. Guidelines for Seismic Restraint of Kitchen Equipment as published by SMACNA and approved by DSA.
- 11. Welding per California Fire Code Chapter 26

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Delivery: Deliver Foodservice Equipment in containers designed to protect the equipment and finish until installation. Make arrangements to receive equipment, when required, at the project site or to hold in a warehouse until delivery can be made to the job site.
- B. Storage: Store Foodservice Equipment in the original containers and in a location to provide adequate protection to equipment while not interfering with other construction operations.
- C. Handling: Handle Foodservice Equipment carefully to avoid damage to components, enclosures, and finish. Do not install damaged Foodservice Equipment. Replace and return damaged components to the Manufacturer.
- D. District Furnished Equipment: The Contractor shall receive, accept and store the District Furnished Equipment until installation. The Contractor shall assume responsibility for the equipment and its condition upon receipt of the equipment by him or his representative.

1.07 PROJECT CONDITIONS

- A. Field Measurements: Take field measurements before ordering and fabrication, to assure accurate fit of fabricated equipment.
- B. Available Services: Verify electrical service characteristics and water, steam, and gas service pressures. Provide pressure-regulating valves where required for proper operation of equipment.

1.08 SUBSTITUTION

A. Substitution of Materials and Equipment: Whenever a material, article, or piece of equipment is identified on the Drawings or in the Specifications by reference to manufacturers' or vendors' names, trade name, catalog numbers, or the like, it is so identified for the purpose of establishing a standard. Substitute items shall be submitted to District at least ten days before bid date for review and consideration. Items that are acceptable (with District's written approval) shall be so stated in an Addendum.

1.09 WARRANTIES

- A. Special Project Warranty: The Contractor shall ensure that the Manufacturer of Refrigeration Compressors shall provide a written warranty signed by the Manufacturer, agreeing to replace or repair, within a five-year warranty period, Refrigeration Compressors with inadequate and/or defective materials and/or workmanship, including leakage, breakage, improper assembly, or failure to perform as required, provided Manufacturer's instructions for handling, installing, protecting, and maintaining units have been adhered to during warranty period. Two-year Labor warranty shall also be provided.
- B. All Other Warranties: The warranty period for all items furnished (other than the aforementioned) shall be guaranteed against defects in workmanship and material for a minimum period of two (2) years. This warranty shall include both Parts and Labor.
- C. The Contractor shall be responsible for returning all warranty cards to the Manufacturers as required. Should he fail to return the warranty cards, the Contractor shall be responsible for providing the same warranty to the District as required by the Manufacturer.
- D. Refer to Division 1 Section Warranty for warranty format.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Stock Manufactured Items: Refer to ARTICLE 3.06 EQUIPMENT SCHEDULE, herein.
- B. Stainless Steel: Provide ASTM A666 / AISI Type 304 non-magnetic sheets, free of buckles, waves, and surface imperfections; Blend and regrain as required to effect matching and continuous finished product..
 - 1. Finish for exposed surfaces to be No. 4 polished, unless specified otherwise.
 - 2. Protective covering shall be provided on all polished surfaces of stainless steel sheet work, and retained and maintained until time of final testing, cleaning, start-up, and Substantial Completion.
- C. Galvanized Sheet Steel: Use only if specified; comply with ASTM specifications for 'zinc-coated' (galvanized) iron or steel sheets, coils and cut lengths; it shall be mild, low carbon steel, zinc coated; ASTM A653/A653M, except for extensive forming; ASTM A924/A924M, G90 zinc coating, chemical treatment. A-98 coating shall be 1.25 oz per square foot coating class, also known as 'commercial'.

- D. Sheet Steel: Provide ASTM A1011/A1011M hot-rolled carbon steel.
- E. Stainless Steel Tube: Provide ASTM A554, Type 304 with No. 4 polished finish. All tubing shall be round unless specified otherwise.
- F. Aluminum: Provide ASTM B209 sheet and plate, ASTM B221 extrusions, 0.40-mil clear anodized finish where exposed, unless specified otherwise.
- G. White Metal: Provide corrosion-resistant metal containing not less than 21 percent nickel. Make castings free from pit marks, runs, checks, burrs, and other imperfections; rough grind, polish, and buff to bright luster.
 - 1. In lieu of white metal castings, Type 302 18-8 stainless steel die-cast or stamped may be used.
- H. Plastic Materials and Components: Except for Plastic Laminate, provide plastic materials and components that comply with NSF 51.
- I. Hardwood Work Surfaces: Provide laminated edge-grained hard maple (Acer Saccharum), NHLA G-101 First Grade with knots, holes, and other blemishes culled out, kiln dried at 8 percent or less moisture, waterproof glued, machined, sanded, and finished with NSF-approved oil sealer. Provide minimum 2-1/4-inch thickness unless specified otherwise.
- J. Sound Deadening: Provide coating of sound deadening material at underside of all stainless steel tops, drainboards, dishtables, and sinks. Sound deadening material to consist of NSF component smooth flowing Latex Sound Deadener, which is non-aging, does not become brittle and may be painted when dry.
- K. Sealants: Provide <u>ASTM C920</u>, Type S, Grade NS, Class 25, Use NT. When fully cured and washed, sealant shall meet the requirements of the Food and Drug Administration Regulation 21 CFR 177.2600 for use in areas where sealant comes in contact with food.
 - 1. The District will select the color from the manufacturer's standard colors.
 - 2. Backer Rod shall be closed-cell polyethylene rod stock, larger than joint width.
- L. Gaskets: Provide solid or hollow (not cellular) neoprene or PVC light gray gaskets, minimum 40 Shore A hardness, self-adhesive or prepared for either adhesive application or mechanical anchorage.

2.02 WELDING

- A. Welding must comply with California Fire Code Chapter 26.
- B. All welding shall utilize the heliarc method with welding rod of the same composition as the sheets or parts to be joined.
- C. Welds shall be complete, strong and ductile with all excess metal ground and joints finished smooth to match adjoining surfaces.
- D. Welds shall be free of mechanical imperfections such as gas holes, pits, cracks, etc., and shall be continuously welded so that the fixtures shall appear as one-piece construction.
- E. Butt welds made by spot solder and finished by grinding shall not be acceptable.
- F. Spot welds shall have a maximum space of at least 1/4-inch length of the welding material at a maximum space of 4-inches from center to center. Weld spacing at the ends of the channel battens shall not exceed 2-inch centers.
- G. In no case shall soldering be considered as a replacement for welding, nor shall any soldering operation be done where dependence is placed on stability and strength of the joint.
- H. Welds made of spot welding straps under seams and filling in with solder will not be acceptable.

- I. Fixtures shall be shop fabricated of one piece and shipped to the job completely assembled whenever possible. Equipment too large to transport or enter the building as one piece shall be constructed so that the field joints can be welded at the job site.
- J. All body joints made in the field shall be closely butted together, pulled together in the field and tightly belted on the inside or a concealed location.
- K. All exposed joints shall be ground flush with adjoining material and finished to harmonize therewith.
- L. Whenever material has been sunk or depressed by welding operation, such depression shall be suitably hammered and peened flush with the adjoining surface and, if necessary, again ground to eliminate low spots. In all cases, the grain of rough grinding shall be removed by successive fine polishing operations.
- M. All unexposed welded joints on undershelves of tables or counters in stainless steel construction shall be suitably coated at the factory with an approved metallic based paint.
- N. After galvanized steel members have been welded, all welds and areas where galvanizing has been damaged shall have a zinc dust coating applied.
- O. Butt joints and contact joints, wherever they occur, shall be close fitting and shall not require a filler. Wherever sheared edges occur, they shall be free of burrs, fins, and irregular projections, and shall be finished to obviate all danger of cutting or laceration when the hand is drawn over them. In no case shall overlapping materials be acceptable where miters or bull nosed corners occur.
- P. The grain of polishing shall run in the same direction on all horizontal and on all vertical surfaces of each item of fabricated equipment except in the case where the finish of the horizontal sections of each shall terminate in a mitered edge. Where sinks and adjacent drainboards are equipped with a splash, the grain of polishing shall be consistent in the direction throughout the length of the splash and sink compartment.
- Q. Bolts, screws, nuts and washers shall be of steel, except where brass or stainless steel is fastened, in which case they shall be of brass or stainless steel, respectively. Screws shall be 2-inch long, pan head Philips No. 12. Where dissimilar metals are fastened, nuts, bolts, screws and washers shall be of similar grade metal. The spacing and extent of bolts and screws shall be such as to ensure suitable fastening and prevent buckling of the metals fastened.

2.03 ELECTRICAL

- A. Electrical Requirements: Confirm available Electrical Services, such as actual voltages available, number of phases, and number of wires, at the project site, before submitting product data and placing orders.
 - 1. Should requirements indicated on Drawings and in ARTICLE 3.06 EQUIPMENT SCHEDULE, herein, be of larger sizes or higher standards than are required by manufacturer or by governing authorities having jurisdiction, requirements indicated on Drawings and in ARTICLE 3.06 EQUIPMENT SCHEDULE, herein, shall govern.
 - 2. Should requirements indicated on Drawings and in ARTICLE 3.06 EQUIPMENT SCHEDULE, herein, be of smaller sizes or lower standards than are required by manufacturer or by governing authorities having jurisdiction, requirements of manufacturer or of governing authorities having jurisdiction shall govern.
 - 3. All costs for compliance with requirements of manufacturer and of governing authorities having jurisdiction shall be included in the Contract Sum. Rulings and interpretations of code enforcing agencies shall be included in such requirements.
- B. Circuits and Rough-Ins:

- 1. Permanent connections to the project site's Electrical Service shall be made in accordance with requirements as specified in DIVISION 26 ELECTRICAL, and shall comply with California Electrical Code (CEC).
- 2. Make connections only at a junction box, by conductors in metallic conduit. Minimum size of junction boxes (unless specified otherwise) shall be 4-11/16-inches square and 1-1/2-inches deep, with 1/2-inch and 3/4-inch knockouts.
- 3. Utility chase areas accommodating junction and pull boxes shall be a minimum of 18-inches square.
- 4. Coordinate exact locations, types, and quantities of conductors and sealing of fittings with Electrical Drawings and with ARTICLE 3.06 EQUIPMENT SCHEDULE, herein.
- 5. In cases where equipment is directly connected, provide a length of flexible steel, neoprene-jacketed, Seal-Tite conduit, Anaconda Type UA, or equal, complete with approved liquid-tight contactors on each end, designed to provide electrical grounding continuity; make input connection as short as possible, not to exceed 36-inches.
- 6. Provide proper and complete grounding of all metallic Foodservice Equipment.

C. Wiring:

- 1. Exposed wet area applications shall be rigid galvanized steel conduit except for flexible connections. Thin wall conduit (EMT) shall not be used for wet area application. Exposed outlet boxes shall be cadmium-plated, cast steel with threaded hubs.
- 2. Exposed flexible connections shall be flexible steel, neoprene-jacketed, Seal-Tite conduit, Anaconda Type UA, or equal, complete with approved liquid-tight contactors on each end, designed to provide electrical grounding continuity.
- 3. Wiring for built-in strip heaters and immersion type elements shall have UL-listed insulation, not less than 300 volt rated, with listed nickel wire. Extend wiring in raceways or conduits to the junction or pull boxes with not less than 600-volt rated insulated wire.
- 4. Refrigerator and freezer cabinets: Provide conduit as necessary to connect internal components to the junction or pull boxes, and as follows.
 - a. Internal wiring shall be UL-listed, rubber-covered 600-volt rated conductor, except for door heaters which shall be chrome wire with silicone braided jacket having resistance of 10.4 watts per lineal foot.
 - b. For freezer applications, provide wiring in rigid or flexible Seal-Tite Flex or equal (no known equal) EMT.
- 5. Outlets, including all convenience outlets, lighting receptacles (rubber or porcelain), and door switches shall be mounted within approved boxes. Convenience outlets for evaporators shall be twist-lock type. Solid connections for freezer evaporators shall be vapor tight.
- 6. Door switches for hinged doors shall be Arrowhart No. 4039 or equal (no known equal); for sliding doors, provide UL-listed toggle switches.
- 7. Heating element controls for custom fabricated equipment, such as custom fabricated plate warmers shall be provided as follows.
 - a. Uninsulated cabinets with or without doors: provide 3-level switch.
 - b. Open front cabinets with or without insulation: provide variable controller.
 - c. Insulated cabinets with doors: provide thermostat.
- D. Starters, Switches and Controls: Provide starters, motor controls, switches, remote controls, and transformers as necessary.

- 1. All switches shall be located out of the heat zone. If ambient temperature will be above 100 degrees Fahrenheit, provide for adequate ventilation.
- 2. Each motor driven appliance or electrical heating unit shall have a heavy-duty control switch, magnetic contactor or starter. Provide electrical controls, switches or other components being furnished loose by the manufacturer.
- 3. Provide starters for across-the-line start, with thermal overload protection and manual overload reset. Push button stations shall be mounted in starter covers, except where necessary for starters to be mounted in a remote location.
- E. Convenience and Power Outlets: Provide all cut-outs, outlet boxes, cover plates, and all service fittings as necessary in Custom Fabricated Foodservice Equipment as shown on document drawings and in ARTICLE 3.06 EQUIPMENT SCHEDULE, herein; provide necessary conduits to extend to the junction box or pull box of the project site's Electrical System.
 - 1. Outlets having a specific voltage for a single purpose application shall be of such design that plugs designed for other applications will not fit.
 - 2. Verify that outlets will match appliance plugs as indicated on Electrical Drawings and in ARTICLE 3.06 EQUIPMENT SCHEDULE, herein. Replace cords and plugs if necessary.
 - 3. Electrical outlet devices shall be National Electrical Manufacturers Association (NEMA) Specification Grade and manufactured by Hubbell, Square D, Bryant, General Electric, Pass and Seymour, Arrowhart or equal.
- F. Cords and Plugs: Provide UL-listed cords and plugs for stock manufactured and for custom fabricated equipment.
 - 1. Cords are to be rubber-covered, three-wire cord of appropriate current capacity and appropriate length to suit use.
 - 2. Plugs are to be three-prong, ground type of appropriate NEMA configuration for electrical characteristics of equipment and serving outlet.
- G. Light Fixtures: Where light fixtures are specified as integral with Foodservice Equipment, provide sockets, lamps and ballasts as appropriate. For fluorescent fixtures, provide DeLuxe Warm White lamps, unless specified otherwise.
- H. Internal Wiring of Custom Fabricated Fixtures or Equipment:
 - 1. Obtain and pay for all Permits and Fees for inspection and approval of Electrical Work built into custom fabricated fixtures or equipment, for which a permit is required. Proof of inspection shall be attached to, and visible on, fixture.
 - 2. All internal wiring built into, or forming an integral part of, a unit of custom fabricated fixtures or equipment shall be completely wired to a junction box built into the unit, ready for final connection to the project site's Electrical System as specified herein.
 - 3. Licensed Electricians shall perform all internal wiring of fixtures and equipment.
- I. The Electrical Contractor shall be responsible for all inter-connections between systems and the foodservice equipment. Refer to PART 3.1.H FINAL CONNECTIONS, herein.

2.04 PLUMBING

A. All dishwashers, hose reels, janitor sinks, garbage disposals, pre-rinse sprays and water supply units are to be fitted with mixing valve and pressure-reducing valve (per manufacturer requirements), to be supplied by the FSEC and installed by the Plumbing Contractor.

- B. All counter-top equipment requiring water connections must be provided with pressure-reducing valve per 2016 California Plumbing Code (CPC).
- C. Provide charcoal water filter for all ice and water stations, ice machines, tea and coffee machines.
- D. The Plumbing Contractor shall be responsible for all inter-connections between systems and the foodservice equipment. Refer to PART 3.1.H FINAL CONNECTIONS, herein.
- E. The Plumbing Contractor shall install electrical shut-off gas valve(s), provided by the FSEC, in an accessible location above the ceiling.

2.05 HEATING EQUIPMENT

- A. Gas-Heated Appliances: All Gas-Operated and -Heated Equipment shall conform to applicable American Gas Association (AGA) standards and to all applicable Local and State Health Department regulations.
- B. Steam-Heated Appliances: All Steam-Heated Equipment shall be a self-contained assembly complete with control valves located in a readily accessible position.
- C. Heating Equipment Controls: Wherever Thermostatic Controls for Gas-, Electric-, or Steam-Heating Equipment are indicated or necessary, provide controls complete and of materials, size, or rating as required.
- D. Cleaning Provisions: Heating Equipment shall be readily removable for cleaning.

2.06 REFRIGERATION EQUIPMENT

- A. Refrigeration Equipment, General: Provide refrigeration condensing units of size and capacities as indicated, consisting of compressors, condensers, receivers, motors, mounting bases, vibration isolators, refrigeration components, safety devices, electrical controls, refrigerant, and protective controls. Units are to be charged with refrigerant, all factory assembled and tested.
 - 1. Refrigerant: Utilize refrigerant with an ozone depleting potential of 0. All refrigerants to meet all current codes. The following refrigerants are listed as minimums:
 - 2. R-404A Low to medium temperature
 - R-134a Medium temperature
 R-22 High temperature
 - 5. Glycol Food grade
 - 6. Connections: Provide quick-connect-type piping connections to receive piping from evaporator coils.
 - 7. Outdoor Mounting: Provide weather-tight housing and low ambient controls for units mounted outdoors.
- B. Refrigerant Piping: Type ACR copper tubing, hard temper, with wrought fittings and silver solder joints. Insulate suction lines with 1/2-inch pre-molded foamed plastic insulation.
- C. Electrical Wiring: Provide required wiring between electrical rough-in and refrigeration units for proper operation.
- D. Plumbing Piping: Provide required water and drain piping between plumbing rough-in and refrigeration units for proper operation.
- E. Refrigeration Specialties: Provide as indicated refrigerant dryer, liquid line solenoid valve, suction line filter, expansion valve, and water regulating valve (for water-cooled condensers only).

- 1. Provide pump down control circuit consisting of thermostat and solenoid valve.
- 2. Maintain box temperature from thermostat and liquid line solenoid valve; control compressor from suction pressure.

2.07 EXHAUST HOODS

- A. Fabricated Exhaust Hoods: Fabricate to specified UL-listed manufacturers specifications. All hoods must comply with California Mechanical Code.
- B. Grease Removal: Provide removable grease baffles, with drip-channel gutters, drains, and collection basins unless specified otherwise.
- C. Light Fixtures: Provide fluorescent light fixtures, with vapor-tight sealed lens, and stainless steel conduit where exposed for wiring.
- D. Exhaust Duct: Stainless steel with finish to match hood finish where exposed and galvanized steel where concealed. Provide one-hour rated shaft or equal for Type 1 hoods.
- E. Stainless Steel Wall Flashing: Provide floor-to-ceiling, full width wall flashing under all exhaust hoods where a non-combustible wall surface is required.
 - 1. Where walls enclose hoods, those walls shall be fully wrapped with stainless steel wall flashing.
 - 2. Wall flashing shall be a minimum Type 304, 18-gauge stainless steel.
 - 3. Sheets shall be set vertically with seams running perpendicular to the ceiling and floor.
 - 4. Joints shall be butt joints.
 - 5. Seams and ends shall be capped with appropriate stainless steel T-Molding or End Molding.
 - 6. Wall flashing shall extend a minimum of 3-inches above hood line and to below top of base molding.
 - 7. The FSEC shall provide appropriate holes (by hydraulic knockout) and utility cutouts no greater than 1/4-inch of stub-out size.
 - 8. Where electrical outlets require a square or rectangle cutout, the opening must be fully covered by the faceplate.
 - 9. Attach to walls with approved mastic.
- F. Trim: Provide and install stainless steel trim to ceiling and adjacent walls, fabricated of the same gauge and finish as the Exhaust Hood.
- G. The FSEC shall provide and install any additional support membrane to provide a complete installation of the exhaust hood. He shall also be responsible to weld collars to exhaust ducts.
- H. If make-up air duct is integral to exhaust hood, FSEC shall be responsible for final connection from ductwork to make-up air collar.

2.08 MANUFACTURED PRODUCTS

- A. Manufactured Products, General: Provide Manufacturer's standard materials and equipment as specified, complete with all necessary and recommended fittings, fixtures, and accessories.
 - Manufactured items shall comply with applicable Seismic requirements.
 - 1. Manufactured items shall conform to applicable NSF standards and to all applicable Local and State Health Department regulations.
 - 2. Comply with all applicable rules and regulations pertaining to adequate protection from and guarding of moving parts of otherwise hazardous equipment.

- 3. Electric-Operated and Electric-Heated Equipment shall conform to NEMA standards and be UL-listed and UL-labeled.
- 4. Standard Steam-Heated Equipment shall be manufactured in accordance with ASME code requirements and bear the ASME label.
- 5. Gas-Burning Equipment shall be manufactured in compliance with applicable AGA standards and bear the AGA label. Burners for gas-heated equipment shall be equipped with automatic lighters. Oven burners and other concealed burners shall have automatic safety pilots.
- 6. Provide Pressure Regulators for all Gas-Operated and Gas-Heated Equipment as recommended by the manufacturer and to suit service pressures.
- B. Refrigerator Hardware: Heavy-duty die-cast zinc, chrome-plated and polished.
 - 1. Hinges shall be edge mounted, self-closing type.
 - 2. Latches shall be edge mounted, arranged for locking devices.
- C. Handles and Pulls: Provide stainless steel Handles with No. 4 finish, or die-cast zinc with polished chrome-plated finish. Provide die-stamped stainless steel Pulls, recessed rectangular type, with beveled edge frame.
- D. Door Slides: Provide stainless steel Door Slides with minimum load capacity of 100 lbs. per pair, and with positive doorstop. Provide stainless steel ball-bearing rollers.
- E. Hinges: Provide stainless steel Hinges, continuous type or butt type as indicated.
- F. Sliding Door Hardware: Provide extruded aluminum Door Track. Provide galvanized steel Door Sheave with nylon surface and ball-bearing inner races. Provide stainless steel Bottom Guide Pins, spring loaded.
- G. Adjustable Shelf Supports: Provide stainless steel Shelf Supports, snap-in type, and stainless steel Brackets with countersunk mounting holes.
- H. Catches: For hinged doors, provide permanent magnetic Catch of sufficient strength to hold door shut.
- I. Locks: Provide Manufacturer's standard brass 5-pin cabinet-type lock; provide two keys for each lock, keyed separately.
- J. Lever Drains: Provide 2-inch, heavy cast-bronze body, removable flat stainless steel strainer, twist handle waste outlet with support bracket and one-piece connected chrome-plated brass overflow.
- K. Casters: Provide minimum 5-inch diameter wheel casters, with 1-1/8-inch tread width, complying with NSF standards. Provide sealed, self-lubricating bearings, cadmium-plated or bright zinc-plated steel disc wheels, and solid neoprene or polyurethane non-marking tires. Provide foot brakes on two (2) casters of four (4) required per unit unless specified otherwise.

2.09 CUSTOM FABRICATED EQUIPMENT AND FIXTURES

Custom fabricated items shall comply with applicable Seismic requirements.

A. General:

- Fasteners: No exposed screw or bolt heads will be acceptable. Rivets, if specified, shall
 be countersunk and ground flush, and of the same material as the pieces joined together.
 Butt joints made by riveting straps under seams and then filling with solder will not be
 accepted.
- 2. Rolled Edges: Rolled Edges shall be approximately 1-1/2-inch diameter, with corners bull nosed, ground and polished.

- 3. Bends: All horizontal and vertical corners shall be coved with radius bends of 1/2-inches or larger.
- 4. Corners: All corners shall be mitered and fully welded, ground, and polished. Butt joints at corners will not be accepted unless specified otherwise.
- 5. Closures: Provide formed stainless steel to close and finish all fixtures, backsplashes, or shelves, or entire rear of unit, or the ends flush to walls or adjoining fixtures. Closures shall be no greater than 1/8-inch gap between splash and wall.

B. Framing:

- 1. Mount tops on 1-1/2-inch by 1-1/2-inch by 1/8-inch galvanized angle iron, or 4-inch wide by 12-gauge galvanized channels.
- 2. Mount dishtables and drainboards on 4-inch wide by 14-gauge stainless steel channels.
- 3. Run framework around entire perimeter of unit, and cross brace on 30-inch centers.
- 4. For dishtables and drainboards, run framing from front to back at each leg location, and run additional channel lengthwise, located at center of table width and welded to leg channels.
- 5. Fasten framing to underside of top surfaces with 1/4-inch studs welded at approximately 12-inch centers.
- 6. Provide each stud with suitable chrome-plated lock washers and cap nuts, and make stud lengths such that cap nuts can be made up tight bringing top down snugly to framing.

C. Legs and Cross Rails:

- 1. Construct legs of 1-5/8-inch Outer Diameter, 16-gauge stainless steel tubing.
- 2. Provide fully enclosed stainless steel bullet shaped adjustable feet of Type 302 or Type 304 stainless steel exterior, not less than 1-1/2-inches in diameter, threaded for adjustment of 1-inch up or down without any threads showing.
- 3. Fasten leg to 4-inch high stainless steel enclosed gusset, with top completely sealed by means of stainless steel plate.
- 4. Fasten legs to sinks by means of stainless steel enclosed gussets welded in place, sanitary type, stainless steel, reinforced with bushings and having set screws for securing legs.
- 5. Fasten legs to metal tops and dishtables with stainless steel enclosed gussets, as above, welded to stainless steel channels 14-gauge or heavier.
- 6. Fasten legs to wood top tables by means of welding to stainless steel channels anchored to top with screws.
- 7. Weld gussets continuously to bottom of unit framing.
- 8. All equipment longer than seven (7) feet shall be provided with a minimum of six (6) legs.

D. Metal Tops:

- 1. Fabricate of 14-gauge stainless steel, one-piece welded construction, with exposed edges rolled and with corners bull nosed.
- Reinforce on underside with galvanized steel channels welded in place so tops can support
 heavy weights without deflection. Provide cross braces at not more than 30-inches on
 center.
- 3. Where tops are adjacent to walls or adjoining equipment, provide integral splashes with all corners, both vertical and horizontal, coved a minimum of 1/2-inch radius.

- 4. Splashes shall be a minimum of 6-inches high including a 1-inch horizontal return to wall and 1-inch vertical drop (for 'Z' clip installation) and enclosed ends.
- 5. Field joints in tops are to be sanitary, tight and without open seams, by means of welding or by properly designed draw fastenings, or commercial joint material to suit the purpose required; 1/8-inch tolerance for silicone maximum.
- 6. For countertop equipment, provide hydraulic knock out and grommet for utility lines at counter top or sides or rear.

E. Cabinet Bodies:

- 1. Fabricate of 18-gauge stainless steel, with end panels formed with round corners for free-standing units, and square corners for fixtures that adjoin walls or other fixtures.
- 2. Provide 90-degree retentions on end panels at front and rear, turned in toward body of cabinet and welded for reinforcement.
- 3. For cabinets with open shelving, provide double-wall inner panels.
- 4. Weld ends to horizontal angle or channel members to form integral cabinet base.
- 5. Provide backs of same material as ends, with vertical edges turned in to match edges of ends.
- 6. Weld, making flush joints.
- 7. Provide all cabinets with full-height corner bumpers, wrapped around corner 2" each side, and crimped to cabinet face.

F. Dishtables and Drainboards:

- 1. Fabricate of 14-gauge stainless steel, with exposed edges formed into 1-1/2-inch by 190-degree rolled rim approximately 3-inches high.
- 2. Provide built-in pitch to tubs of 1/2-inch minimum.
- 3. Provide minimum 10-inch high backsplashes including 2-inch return on 45-degree angle, 1-inch horizontal return to wall and 1-inch vertical drop with offset (for 'Z' clip installation) and enclosed ends, or 1-1/2-inch diameter rolled rim, as indicated.
- 4. Construct the front rim and backsplash of the drainboard on a continuous level plane with the sink it adjoins.
- 5. Support drainboards 36-inches and longer with 1-5/8 inch outer diameter legs and gusset.
- 6. Cove all corners, both vertical and horizontal, a minimum of 3/4-inch radius.

G. Sinks:

- 1. Fabricate from 16-gauge stainless steel, with interior corners rounded to a 1-inch radius, both horizontally and vertically, forming cove in bottom.
- 2. Construct sink with butt-edge joints welded, ground smooth and polished so joints are imperceptible.
- 3. Finish sinks to match stainless steel top. Where sink bowls are exposed below countertop, finish sink exterior to match top.
- 4. Divide multiple compartment sinks with double-wall, 16-gauge stainless steel partitions rounded to 1/2-inch radius on top and having corners rounded the same as other corners in sinks. Provide multiple compartment sinks with continuous face at exposed front.
- 5. Provide back, bottom, and front of one continuous piece with no overlapping joints or open spaces between compartments.

- 6. Pitch bottom of each compartment, and crease to die-stamped recess to receive lever-type drain, without use of solder, rivets, or welding.
- 7. Finish front and exposed ends of sink countertop with 1-1/2-inch, 190-degree rolled edge.
- 8. Finish back and ends adjacent to walls or other fixtures with backsplash.
- 9. Punch backsplash to receive wall-mounted faucets.
- 10. For sinks in worktops, construct as above but omit roll edges and backsplashes. Fabricate bowl to be flush with work surface.
- 11. Provide stainless steel wall flashing from finished floor to ceiling behind all sinks where FRP or ceramic tile is not indicated.
- 12. Sink covers to be constructed of 14ga S/S construction with grommet finger hole. Covers will be fabricated to accommodate any overflow drain in sink and will fit flush over sink.

H. Drains, Wastes and Faucets:

- 1. Provide 2-inch, heavy cast bronze body, with removable flat stainless steel strainer, twist handle waste outlet with support bracket and one-piece connected chrome-plated brass overflow.
- 2. Provide 3-1/2-inch crumb cup waste outlets in all die-drawn inset type sinks.
- 3. Faucets: As specified.
- 4. Dipperwells: As specified.

I. Undershelves:

- 1. Construct of 16-gauge stainless steel.
- 2. Open Base Shelving: Edges shall be rolled down on open sides, with a 2-inch turn-up on rear and ends where adjacent to walls and other equipment.
 - a. Neatly notch corners and weld to legs.
 - b. Reinforce shelving longitudinally with 14-gauge formed channel welded to underside.
 - c. In fixtures with open bases, provide shelves notched a full 90 degrees and welded tightly to legs, with tight joints at all intersections of shelf and leg.
- 3. Bottom Shelves: Extend forward and turn down at front so as to be flush with front facing of cabinet.
- 4. Fixed Intermediate Shelves: Weld to front stiles and to 16-gauge stainless steel brackets so that shelf is 1-inch away from back and ends of cabinet.
- 5. Adjustable Shelves: Channel on all four (4) sides, weld corners, and mount on removable stainless steel standards.
- 6. Construct removable shelves as above, fit over cross rails and do not exceed shelving sections of 30-inches long; where one section abuts another, turn down edges 1-inch.
- 7. Enclosed Base Shelving: Turn up at back and sides and feather slightly to insure a tight fit to enclosure panels.

J. Overshelves:

- 1. Construct of 16-gauge stainless steel.
- 2. Set shelves mounted over equipment not adjacent to walls on 1-inch by 16-gauge stainless steel tubular standards fitted with stainless steel base flanges.

- 3. Completely weld top of tubular standards to 16-gauge stainless support channels; run channels full width of overshelf.
- 4. Where overshelves are mounted above tables, run 1/2-inch steel tension rods through counter-tops, stanchions, and reinforcing angle framing, and secure with nuts and lock washers to assure stable sway-free structure.
- 5. Where shelves are mounted over drainboards or dishtables, mount on upturned rolled edges omitting flanges, and scribe lower end of tube to match contour of roll. Secure as in table-mounted method.

K. Cabinet Doors:

1. General:

- a. Fabricate with double-pan construction of stainless steel with edges formed into a channel extending around all sides, forming doors 3/4-inch thick.
- b. Fabricate outer pans of 18-gauge stainless steel with corners welded, ground smooth, and polished.
- c. Include wood fiber sound deadening material within door assembly.
- d. Fabricate inner pans of minimum 20-gauge stainless steel, fitted tightly into outer 18-gauge pan.
- e. Fully weld pans together.
- f. Where single pan-type doors are indicated, fabricate of 16-gauge stainless steel, reinforced and stiffened with closed hat sections to prevent flexing.

2. Sliding Doors:

- a. Mount doors on large ball bearing, quiet rollers in 14-gauge stainless overhead tracks. Provide resilient stops.
- b. Construct sliding doors to be removable without use of tools, for cleaning purposes.
- c. Provide U-shaped or Loop stainless steel handle on each door.
- d. Where specified, provide doors with locks.
- e. Exterior doors shall be provided with weatherproof cover.
- f. All sliding doors to be provide with pushbutton activator.

3. Hinged Doors:

- a. Mount hinged doors on stainless steel, continuous-type hinges.
- b. Construct hinged doors so that face is flush with cabinet body.
- c. Provide each door with U-shaped or Loop stainless steel surface door pull and magnetic catches.
- d. Where indicated, provide doors with locks.
- e. Provide permanent magnetic catch of sufficient strength (5 lb max opening force) to hold door shut.

L. Drawers:

- 1. Construct front of double-pan stainless steel, 16-gauge exterior and minimum 20-gauge interior.
- 2. Size: Minimum 5-inches deep, 1-inch thick, with other dimensions as specified and to suit installation.
- 3. Provide cylinder lock for drawers, unless specified otherwise.
- 4. Fasten drawer suspension guides to 18-gauge stainless steel housing suspended from angle framing under fixed top.

- 5. Mount drawers on fabricated 16-gauge stainless steel interlocking channel supports with large size, quiet ball-bearing wheel suspension and stops to prevent drawers from being pulled out of fixture.
- 6. Construct support slides so that drawers may be pulled out minimum of two-thirds of drawer length and support heavy loads without deflection. Drawers shall be easily removable without the use of tools.
- 7. Support slide to have minimum load capacity of 150 lbs per pair.
- 8. Provide recessed full-length stainless steel handle for each drawer.
- 9. For removable pan-type drawers, fabricate as a rigid self-supporting unit. Drawer body shall have flanged top for support in drawer frame and shall be as specified above. Provide replaceable, full neoprene bumpers.
- 10. For drawers in refrigerated sections, provide removable-type, perforated body, mounted on large ball-bearing wheels in flat tracks. Wheels shall be similar to heavy-duty urethane roller skate wheels. Wheels and bearings shall be corrosion-resistant, longwearing material, grease packed before assembly. For drawers in refrigerated sections, provide full-perimeter, soft gaskets.
- 11. Liner to be lift-out type, one-piece construction, and die stamped of 20-gauge stainless steel, with inside radiused corners.
- 12. Drawer pans shall be removable without removing frame from fixture.

M. Wall Shelves:

- 1. Construct of 16-gauge stainless steel with 1-1/2-inch roll on front and exposed ends, and with 2-inch turn-up on back and ends where adjacent to walls or other fixtures.
- 2. Miter and weld all corners.
- 3. Construct wall brackets of 14-gauge stainless steel with 1-1/2-inch flange at wall and completely welded to underside of shelf.
- 4. Fasten each bracket to wall with a minimum of two stainless steel pan head screws, Philips No. 12, 2-inch long.
- 5. Install so that shelf sets 1-inch away from wall.
- 6. Adjustable shelf supports shall be snap-in type with stainless steel brackets with countersunk mounting holes.
- 7. Wall backing is required.
- N. Wall Backing: Where indicated on Foodservice Consultant's drawings, provide wall backing to run six inches beyond full length of equipment item at each side.
 - 1. For Wood Frame Construction: The General Contractor shall provide and install wood blocking. Secure wall blocking in between studs.
 - 2. For Metal Frame Construction: The FSEC shall provide and the General Contractor shall install metal backing. Metal backing shall be at least 14-ga galvanized steel. Secure wall backing to studs.

O. Cold Pans:

- 1. Fabricate from 16-gauge stainless steel lining and 20-gauge stainless steel casing.
- 2. Cove interior vertical and horizontal corners.
- 3. Insulate sides, ends, and bottom with material thermally equal to 2-inch thickness of fiberglass.

- 4. Sweat 1/2-inch-diameter copper cooling coils to underside cold pan, and seal in thermomastic material.
- 5. Turn down countertop (and/or flange) 1-inch into pan; install completely concealed 1-inch-wide plastic breaker strip; install 1-inch chrome-plated drain with plug.
- 6. Provide 1/2-inch high false bottom of 16-gauge perforated stainless steel in removable sections.
- 7. All cold pans, ice pans, refrigerated pans and cabinets shall be provided with breaker strips where adjoining top of cabinet face materials to prevent transfer of cold.
- 8. Where cold pans and other inserts are to be installed in cabinet bases, provide apron the full depth of insert and of same material as cabinet body with reinforced openings as required; form in openings on all sides.

P. Insert Pans:

1. Include standard pans and adaptive dividers on all custom-fabricated insert pans (refrigerated, ambient and hot) to provide optimal use of the insert pans. Standard pan size to be determined prior to submittal of shop drawings.

Q. Casters:

- 1. Heavy-duty, NSF-approved, sealed wheel and swivel ball bearings, solid or disc wheel, with greaseproof neoprene or polyurethane tire, and bright chrome plated finish on steel.
- 2. Wheel diameter: 5-inch, minimum.
- 3. Tread width: 1-3/16 inch, minimum.
- 4. Capacity per caster: 250 pounds, minimum.
- 5. Include stainless steel rotating wheel guard.
- 6. A minimum of two (2) casters shall have brakes.
- R. Corner Guards: All exposed corners shall be provided with 14-gauge S/S corner guard, full height to ceiling. Guards to be full height corner bumpers, wrapped around corner 2 inches each side, and crimped to the face of the wall or fixture.
- S. Curbs: Construct of 16-gauge galvanized steel, fully welded and reinforced where necessary.

T. Sneeze Guards:

- 1. Frame to be constructed of 1-1/2" Outer Diameter, stainless steel tubing; stainless steel fittings to be welded, ground smooth and polished; no exposed screw heads, bolt heads, or solder joints permitted.
- 2. Front and end panels to consist of 1/4" tempered glass trimmed by glazing into a 3/8" by 3/8" U-shaped stainless steel channel; panels to be removable from frame without tools.
- 3. Shelves to consist of 3/8" tempered glass trimmed by a snug-fitting gasket seated firmly against round tubing frame.
- U. Wall Flashings: Provide wall flashings where indicated on Foodservice Consultant's drawings.
 - 1. Wall flashing shall be a minimum Type 304, 18-gauge stainless steel.
 - 2. Sheets shall be set vertically with seams running perpendicular to the ceiling and floor.
 - 3. Joints shall be butt joints.
 - 4. Seams and ends shall be capped with appropriate stainless steel T-Molding or End Molding.
 - 5. Wall flashing shall extend a minimum of 12-inches below splash.

- 6. The FSEC shall provide appropriate holes (by hydraulic knockout) and utility cutouts no greater than 1/4-inch of stub-out size.
- 7. Where electrical outlets require a square or rectangle cutout, the opening must be fully covered by the faceplate.
- 8. Attach to walls with approved mastic.
- 9. Provide and install stainless steel trim to ceiling and adjacent walls, fabricated of the same gauge and finish.
- 10. Where it is necessary to remove all or part of an existing wall flashing to allow modification work, replace with stainless steel wall flashing with appropriate molding.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Installation, General: Set each item of non-mobile and non-portable equipment securely in place, level, and adjust to correct height.

All items shall comply with applicable Seismic requirements.

- 1. Anchor products to supporting substrate where indicated and where required for sustained operation and use without shifting or dislocation.
- 2. Conceal anchorages where possible.
- 3. Adjust countertops and other work surfaces to level tolerance of 1/16-inch maximum offset, and maximum variation from level or indicated slope of 1/16-inch per ft.
- 4. Where indicated or required for safety of equipment operator, anchor equipment to floor or wall. Provide legs with adjustable flanged foot where equipment is indicated to be anchored to floor. Install two (2) anchors on each foot and cap off with stainless steel acorn nuts.
- B. Field Joints: Complete field-assembly joints (joints that cannot be completed in shop) by welding, bolting-and-gasketing, or similar methods as indicated.
 - 1. Grind welds smooth and restore finish.
 - 2. Set or trim gaskets flush, except for T-gaskets as indicated.
- C. Enclosed Spaces: Treat spaces that are inaccessible after equipment installation by covering horizontal surfaces with powdered borax at rate of four (4) ounces per square foot.
- D. Closure Plates and Strips: Install where required, with joints coordinated with units of equipment.
- E. Knock outs: Provide hydraulic knock outs in foodservice equipment, where required, to run plumbing, electric, gas, or steam lines through equipment items for final connections.
- F. Sealants and Gaskets: Install completely around each unit to make joints airtight, watertight, vermin-proof, and sanitary for cleaning purposes.
 - 1. In general, make sealed joints not more than 1/8-inch wide, and stuff backer rod to shape sealant bead properly, at 1/4-inch depth.
 - 2. Shape exposed surfaces of sealant slightly concave, with edges flush with faces of materials at joint.
 - 3. At internal-corner joints, apply sealant or gaskets to form a sanitary cove, of not less than 3/8-inch radius.

- 4. Provide sealant-filled or sealant-gasketed joints up to 1/2-inch joint width and metal closure strips for wider joints with sealant application each side of strip.
- 5. Anchor gaskets mechanically or with adhesives to prevent displacement.
- 6. All fixtures adjacent to wall shall be sealed to wall as specified.

G. District Furnished/Contractor Installed Equipment:

- 1. Existing Equipment: The Contractor shall be responsible for removing, cleaning, repairing (if required) and re-installing equipment designated as Existing Equipment, coordinating removal of Existing Equipment with the District. The Contractor shall be responsible for all connectors, valves, regulators, and hard and flexible connections to make the Existing Equipment operational per manufacturer's standards. The Contractor shall coordinate Existing Equipment requiring remote refrigeration with all refrigeration systems, ensuring that such Equipment is operational per manufacturer's standards.
- 2. New Equipment: The Contractor shall receive, accept, and store District Furnished Equipment at approved, designated area on site. All freight damage will be noted and the Contractor shall file a claim for the damage on behalf of the District. The Contractor shall provide a storage trailer to store District Furnished Equipment if necessary.
- 3. Final installation of the District Furnished Equipment is the responsibility of the Contractor, who shall be responsible for all connections, valves, regulators, and hard and flexible connections to make the District Furnished Equipment an operating system per manufacturer's standards. The Contractor shall coordinate District Furnished Equipment requiring remote refrigeration with all refrigeration systems, ensuring that such equipment is operational per manufacturer's standards.
- 4. The District will supply to the Contractor current specification sheets, lists of provided equipment and scheduled shipment and arrival dates. The Contractor shall coordinate all required cutouts and electrical, plumbing, and mechanical coordination with the trades to allow for proper installation.
- 5. The Contractor shall provide to the District a compact disk with electronic version of all Operation & Maintenance Manuals for new foodservice equipment.

H. Final Connections:

- 1. Final hook-ups are not part of the scope of work of the FSEC. All final hook-ups (plumbing, mechanical and electrical) shall be part of the General Contractor's area of responsibility. The General Contractor shall make allowances for elbows, traps, etc., and shall make final connections on the job, supply all necessary valves, traps, steam traps, faucets, starting switches for motors, etc., except where specifically noted otherwise in the written specifications.
- 2. The Contractor shall be responsible for all inter-connections between systems and the foodservice equipment.
- I. Installers shall be responsible for verifying dimensions.

3.02 FIELD QUALITY CONTROL

- A. Testing: Coordinate start-up of Foodservice Equipment when service lines have been tested, balanced, and adjusted for pressure, voltage, and similar considerations. Do not operate steam lines until they have been cleaned and treated for sanitation. Before testing, lubricate each equipment item in accordance with manufacturer's recommendations.
- B. Include in the testing all District Furnished Equipment and Existing Equipment.

- C. Test each item of operational equipment to demonstrate that it is operating properly and that controls and safety devices are functioning.
- D. Repair or replace equipment found to be defective in its operation, including units that are below capacity or operating with excessive noise or vibration.
- E. Testing is to include any service charges due to improper installation, lack of proper connectors, or missing equipment.

3.03 CLEANING

- A. After completion of installation and other major work in Foodservice areas, remove protective coverings, if any, and clean Foodservice Equipment, internally and externally.
 - 1. Restore exposed and semi-exposed finishes to remove abrasions and other damages; polish and buff exposed-metal surfaces and touch-up painted surfaces.
 - 2. Replace work that cannot be successfully restored.
- B. Final Cleaning: After testing and start-up, and before time of Substantial Completion, clean Foodservice Equipment, and leave in condition ready for use in Foodservice.

3.04 ADJUSTMENT OF EQUIPMENT AND DEMONSTRATION

- A. Turn on all mechanical equipment, test for leaks, poor connections, inadequate or faulty performance and correct if necessary; adjust for proper operation.
 - 1. All thermostatically controlled equipment and equipment with automatic features shall be operated for a sufficient length of time to prove controls are functioning as intended.
- B. At a time and date selected by the District, the FSEC shall arrange for a demonstration of all new mechanical equipment for the District and his appointed representatives. These demonstrations are to be conducted by factory-trained engineers of the various equipment manufacturers and shall be done in two stages: one for the operations people and the second for maintenance personnel. A representative of the FSEC must be in attendance at all demonstrations.
- C. The FSEC shall provide the District with one copy of a video film in DVD format depicting the operations and maintenance on each piece of new foodservice equipment.
- D. The FSEC shall provide all necessary instructional training for all emergency equipment, gas turn-offs, fire extinguishers, high-temperature alarm system, etc., including, if any, emergency generating equipment.
- E. The FSEC shall provide all necessary instructional training for all safety equipment.

3.05 CLOSEOUT PROCEDURES

- A. Start-up of Foodservice Equipment
 - 1. Utilities (lighting of pilot lights, etc.) by General Contractor
 - 2. FSEC shall provide for Manufacturer's Service Agent to ensure systems are properly connected and are operational per manufacturer's required specification.
 - 3. FSEC shall provide for Manufacturer's Representative to demonstrate how to properly operate all new foodservice equipment.
 - 4. FSEC shall provide manufacturer inspection certification for all new items for District's acceptance, otherwise will consider not meeting the project specifications.

- B. Provide services of the Contractor's technical representative and the Manufacturer's technical representative (where required) to instruct District personnel in the operation and maintenance of new foodservice equipment
 - 1. Schedule training with the District.
 - 2. Provide at least 7-day notice of training date to the District.
- C. O&M Manuals: Provide a compact disk with electronic version of all Operation & Maintenance Manuals for new foodservice equipment.
- D. The Contractor shall provide a walk-through with the District prior to turning the project over to the District for operation.

3.06 EQUIPMENT SCHEDULE

- A. All dimensions are for reference only. Dimensions and site conditions must be field verified.
- B. All equipment shall comply with applicable California State Seismic requirements.
- C. Foodservice Equipment drawings are part of these specifications.
- D. Warranties: Five-year Compressor Warranty. Two-year Parts & Labor Warranty for all new equipment.
- E. All roll-in or roll-thru cabinets shall be trim to the wall with 6"H 16ga S/S cove base, 3/8" radius.
- F. All plumbing, electrical and gas lines shall be concealed within the building structure to the greatest extent possible. Exposed wiring to be enclosed in S/S casing.
- G. It shall be the responsibility of the FSEC to provide S/S covers for all exposed conduit, piping and refrigeration lines in the kitchen spaces.
- H. Outdoor Mounting: Provide weather-tight housing and low ambient controls for units mounted outdoors.
- I. Where indicated, or required for safety of equipment operator, anchor equipment to floor or wall. Provide legs with adjustable flanged foot where equipment is indicated to be anchored to floor. Install two (2) anchors on each foot and cap off with S/S acorn nuts.
- J. All gas appliances shall have gas hose with quick disconnect and seismic restraint (seismic restraints where applicable).
- K. All gas appliances with open burners installed in schools shall have Battery spark ignition
- L. All mobile units with water lines shall have water hose with quick disconnect and seismic restraint (seismic restraints where applicable).

ITEM # 1 CORNER GUARDS & END CAPS

Quantity: One (1)
Manufacturer: Custom S/S
SIS No.: D709

- 1. One (1) (LOT) Furnish and install Corner Guards & End Caps per Plan, Details and General Specifications on Part 2 to Part 3 herein, including: 14ga S/S angle construction.
- 2. One (1) (LOT) CORNER GUARDS 2" x 2" angle x full height to ceiling. Provide for all exposed corners; mount bottom flush with top of coved base.
- 3. One (1) (LOT) END CAPS 2" x 2" angle x full wall height, similar to Corner Guards but shall extend to cover the full exposed face of the wall.

ITEM # 2 36" WALL MTD. AIR CURTAIN

Quantity: One (1) Manufacturer: Berner

Model: SHD07-1036A

SIS No.: D709

- 1. One (1) Model SHD07-1036A Sanitation Certified Series High Performance Air Curtain, 36" long, unheated, (1) 3/4 hp motor, for doors up to 7-feet high, aluminum housing with white finish, indoor or exterior mounting, cULus, UL EPH Classified, MADE IN USA
- 2. One (1) If special freight fees are requested, (See below) all applicable fees will be added to the invoice; fees subject to change; contact factory for addition information.
- 3. One (1) Model A 120v/60/1-ph

- 4. One (1) Model 9503SD020-P Automatic Door Switch, plunger type, activates air door when door opens, single phase only & max. amp draw of 20 amps
- 5. One (1) Model 66ADS000DMB Mounting Bracket, for plunger door switch used with manual swing doors (field mounted)
- 6. One (1) White powder coat exterior finish standard

ITEM # 3 SERVING COUNTER W/ ACCESSIBLE STATION

Quantity: One (1)
Manufacturer: Custom S/S

Model: COUNTER SOR 90**

SIS No.: D709

- One (1) Model COUNTER SQR 90** Furnish and install Counter per Plan, Details and General Specifications on Part 2 to Part 3 herein, including:
 14ga S/S top with 2" square edge, turn-down 90 degree. 6"Hx2" thick integral backsplash and end splash where adjacent to wall. 18ga S/S cabinet with 16ga S/S fixed bottom and adjustable intermediate shelves. Shelves shall be turned up at rear for sanitary cove.
- 2. One (1) Accessible section with open space below shall be an integral part of the Counter.
- 3. One (1) Cutout for items to be installed into this counter shall be turned down with no exposed raw edges on top horizontal surface.
- 4. One (1) Self-closing drawer: (4) 2" dia ballbearing rollers traveling on 16ga S/S slides, cylinder lock, U-shaped or loop S/S handle, with removable interior pan 20"x20"x5" deep, made of 20ga #304 S/S with all corners coved.
- 5. One (1) Ledge: Fabricate extended top of 14ga #304 S/S, one piece fully welded as an integral part of the Counter (unitized top). Concealed brackets 20-ga galvanized brackets, concealed at 24" O.C., tac weld to the underside of the ledge.
- 6. One (1) Tray Slide per drawing documents: 16ga S/S solid-V tray slide 12"W mounted on brackets. Support brackets shall be die-cut and fabricated from 3/16" thick S/S plate. Provide a bracket for a minimum 42" of trail rail length. Shall be an integral part of the Counter.
- 7. One (1) Include 3-hinged doors with top catch and recessed S/S pull handle.
- 8. One (1) Provide clean and clear openings (as required) for plumbing and electrical hook ups.
- 9. One (1) Provide knock out and grommet for POS units and card readers electrical service.
- 10. One (1) All welds ground smooth and polished.
- 11. One (1) Curb-mounted cabinet to be attached securely to curb below.
- 12. NOTE: Field verification required. FSEC to coordinate the location of roll-down door and mullions with the GC.

ITEM # 4 SINGLE WELL DROP IN HOT FOOD UNIT - DRY OPERATIONS

Quantity: One (1)
Manufacturer: Vollrath

Model: FC-4DH-01120-I

SIS No.: D709

1. One (1) Model FC-4DH-01120-I Hot Food Well Drop-In Unit, electric, dry operation only, (1) well, infinite control, 15"W x 26"D x 15"H, stainless steel remote control panel, includes mounting clips, 120/60/1-ph, 1000 watts, 8.3 amps, cord with NEMA 5-15 plug, NSF, cULus, Made in USA, (made to order)

ITEM # 5 SINGLE WELL DROP IN HOT FOOD UNIT - DRY OPERATIONS

Quantity: One (1)

Manufacturer: Vollrath

Model: FC-4DH-01120-I

SIS No.: D709

1. One (1) Model FC-4DH-01120-I Hot Food Well Drop-In Unit, electric, dry operation only, (1) well, infinite control, 15"W x 26"D x 15"H, stainless steel remote control panel, includes mounting clips, 120/60/1-ph, 1000 watts, 8.3 amps, cord with NEMA 5-15 plug, NSF, cULus, Made in USA. (made to order)

ITEM # 6 SPARE NO.

ITEM # 7 MOBILE WORK TABLE

Quantity: One (1)
Manufacturer: Custom S/S
Model: CUSTOM
SIS No.: D709

1. One (1) Model CUSTOM Furnish and install Mobile Table per Plan, Details and General Specifications on Part 2 to Part 3 herein, including: 14ga S/S top with integral 2" sanitary rolled edges and eased corners. 16ga S/S undershelves. (4) 16ga #304 S/S cross bracing and tubular legs, 1-5/8" dia with S/S gussets. (4) Swivel casters with brake. All welds to be ground smooth and polished.

ITEM # 8 EXISTING RETHERM CABINET

Quantity: One (1)
Manufacturer: Custom
Model: CUSTOM
SIS No.: D709

1. One (1) Model CUSTOM This item is Existing.

ITEM # 9 SPARE NO.

ITEM # 10 SPARE NO.

ITEM # 11 EXISTING 2-SECTION REACH-IN FREEZER

Quantity: One (1)
Manufacturer: Custom
Model: CUSTOM
SIS No.: D709

1. One (1) Model CUSTOM This item is Existing.

ITEM # 12 EXISTING 2-SECTION REACH-IN REFRIGERATOR

Quantity: One (1)
Manufacturer: Custom
Model: CUSTOM
SIS No.: D709

1. One (1) Model CUSTOM This item is Existing.

ITEM # 13 ACCESSIBLE HAND SINK W/ SOAP & TOWEL DISPENSER

Quantity: One (1)

Manufacturer: Advance Tabco

Model: 7-PS-46 SIS No.: D709

1. One (1) Model 7-PS-46 ADA Compliant Hand Sink, wall mounted, 14" wide x 16" front-to-back x 5" deep bowl, 18 gauge 304 stainless steel, splash mount faucet with wrist handles, deck mounted soap dispenser (pump), undermounted paper towel dispenser, basket drain, wall brackets, NSF, cCSAus

ITEM # 14 SPARE NO.

ITEM # 15 SPARE NO.

ITEM # 16 TRASH CANS W/DOLLY & LID

Quantity: Two (2)

Manufacturer: Rubbermaid Commercial Products

Model: FG262000GRAY

SIS No.: D709

1. Two (2) Model FG262000GRAY ProSave BRUTE Container, without lid, 20 gallon, 19-1/2"D x 22-7/8"H, round, reinforced rims, built in handles, double rimmed base, high-impact plastic construction, gray, NSF.

- 2. Two (2) Model FG261960GRAY BRUTE Container Lid, 19-7/8"D x 1-1/4"H, gray
- 3. Two (2) Model FG264000BLA BRUTE Dolly, 18-1/4"D x 6-5/8"H, 3" casters, 250 lb capacity, black

ITEM # 17 3-COMPARTMENT POT AND PAN SINK

Quantity: One (1)
Manufacturer: Custom S/S
SIS No.: D709

- 1. One (1) Furnish and install 3-Compartment Sink with integral drainboard per Plan, Details and General Specifications on Part 2 to Part 3 herein, including: 14-ga #304 S/S sink. All interior corners, both horizontal and vertical, shall be coved. Pitch to center drain. Provide drain and removable crumb cup.
- 2. DIRECT WASTE

ITEM # 18 LEVER WASTE

Quantity: Three (3)
Manufacturer: T&S Brass
Model: B-3952-01
SIS No.: D709

1. Three (3) Model B-3952-01 Waste Valve, twist handle, 3-1/2" sink opening, 2" drain outlet with overflow assembly (replaces B-3917-01)

ITEM # 19 WALL / SPLASH MOUNT FAUCET

Quantity: Two (2)
Manufacturer: T&S Brass
Model: B-0290-14
SIS No.: D709

- 1. Two (2) Model B-0290-14 Mixing Faucet, wall mount, 8" adjustable centers, 14" Big-Flo swivel nozzle with plain end outlet, 4-arm handles with color coded indexes, 00LL inlet elbows, 3/4" NPT female inlets, ADA compliant
- 2. Two (2) Model B-0427 Supply Nipple, 3/4" x 2-1/2"
- 3. Four (4) Model B-WH4 Wrist Action Handle

ITEM # 20 WALL MTD. SHELF

Quantity: One (1)
Manufacturer: Custom S/S
SIS No.: D709

1. One (1) Furnish and install Wall Shelf per Plan, Details and General Specifications on Part 2 to Part 3 herein, including: 16ga #304 S/S with 1-1/2" sanitary downward rolled rim on front and 2" turn up edge where adjacent to wall. Mount 60" AFF. 14ga #304 S/S wall brackets, tac weld to the underside of the shelf.

ITEM # 21 SPARE NO.

ITEM # 22 MOBILE 5-TIER DRY STORAGE SHELVING

Quantity: Four (4)
Manufacturer: Metro
Model: NC
SIS No.: D709

- 1. Four (4) Model NC Super Adjustable Super Erecta® Shelf, wire, sizes per plan, chrome plated finish, plastic split sleeves are included in each carton, corner release system, NSF
- 2. SIZES PER PLAN x 74"H. Each unit to have (4) 74UP Posts, (2) 5MP swivel casters, (2) 5MPB casters with brake
- 3. Provide all necessary components for complete installation.

ITEM # 23 SPARE NO.

ITEM # 24 WALL MTD SHELF W/ MOP HOLDERS

Quantity: One (1)

Manufacturer: Advance Tabco

Model: K-246 SIS No.: D709

1. One (1) Model K-246 Utility Shelf, wall-mounted, 36"W x 8"D, 1-1/2" upturn on rear & sides, (3) mop holders, (4) rag hooks, stainless steel, NSF

ITEM # 25 PREP TABLE W/ 1-COMPARTMENT SINK W/ DRAWER

Quantity: One (1)
Manufacturer: Custom S/S
SIS No.: D709

1. One (1) Furnish and install Table with Marine Edge per Plan, Details and General Specifications on Part 2 to Part 3 herein, including:

14ga S/S top with marine edge. 8"Hx2" thick integral backsplash and side splash where adjacent to wall. 16ga S/S undershelves. 16ga #304 S/S tubular legs, 1-5/8" dia with 1" adjustable S/S bullet feet.

- 2. 1-Compartment Sink: 14ga #304 S/S with coved interior corners, horizontal and vertical. Pitch to center drain. Provide drain and removable crumb cup.
- 3. One (1) Sink Cover & Storage: 14ga S/S construction with grommet finger hole. Covers will store below in a storage slot above the lower shelf.
- 4. One (1) Self-closing drawer with (4) 2" dia ball bearing rollers traveling on 16ga S/S slides, 18ga S/S enclosure, cylinder lock, recessed full-length S/S handle, and removable 20ga #304 S/S drawer pan, 20"x20"x5" deep, with coved corners.
- 5. One (1) All welds to be ground smooth and polished.

ITEM # 26 LEVER WASTE

Quantity: One (1)
Manufacturer: T&S Brass
Model: B-3952-01
SIS No.: D709

1. One (1) Model B-3952-01 Waste Valve, twist handle, 3-1/2" sink opening, 2" drain outlet with overflow assembly (replaces B-3917-01)

ITEM # 27 SPLASH MOUNT FAUCET

Quantity: One (1)
Manufacturer: T&S Brass
Model: B-0231
SIS No.: D709

- 1. One (1) Model B-0231 Sink Mixing Faucet, 12" swing nozzle, wall mounted, 8" centers on sink faucet with 1/2" IPS eccentric flanged female inlets
- 2. Two (2) Model B-WH4 Wrist Action Handle
- 3. One (1) Model B-0199-01 Aerator, non-splash, 55/64" -27 female aerator threads, fits goosenecks & nozzles
- 4. One (1) Model B-0230-K Installation Kit, (2) 1/2" NPT nipples, lock nuts and washers, (2) short "Ell" 1/2" NPT female x male

ITEM # 28 WALL SHELF

Quantity: One (1)
Manufacturer: Custom S/S
SIS No.: D709

1. One (1) Furnish and install Wall Shelf per Plan, Details and General Specifications on Part 2 to Part 3 herein, including: 16ga #304 S/S with 1-1/2" sanitary downward rolled rim on front and 2" turn up edge where adjacent to wall. Mount 60" AFF. Provide wall brackets of 14ga #304 S/S and tac weld to the underside of the shelf.

ITEM # 29 FLOOR-MTD MOP SINK W/FAUCET - PROVIDED BY THE PLUMBING

CONTRACTOR

SIS No.:

Quantity: One (1)
Manufacturer: IMC/Teddy
Model: FS-L

1. One (1) Model FS-L Service Utility Sink per Architects specifications. Manufacturer, Model

& Cutsheet are for reference only.

D709

2. One (1) Model SSF Wall Faucet

3. Note: MFR, MODEL AND CUTSHEET ARE FOR REFERENCE ONLY.

ITEM # 30 WALL BACKING (NOT SHOWN ON FLOOR PLAN)

Quantity: One (1)
Manufacturer: Custom S/S
SIS No.: D709

1. One (1) Furnish and install Wall Backing for Metal Frame Construction per Plan, Seismic Details and General Specifications on Part 2 to Part 3 herein, including: Minimum 12"W x height per Seismic sheet. Wall backing shall run 6" beyond full length of equipment item at each side. FSEC shall provide and GC shall install metal backing, min 14ga galvanized steel. Secure wall backing to studs.

END OF SECTION

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SECTION 22 4000 PLUMBING FIXTURES

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Mop sink.
- B. Service Sink Faucet.

1.02 RELATED REQUIREMENTS

- A. Division 01 General Requirements.
- B. Section 03 3000 Cast-In-Place Concrete: Concrete slab replacement due to plumbing installation.
- C. Section 07 9200 Joint Sealants: Sealing joints between fixtures and walls and floors.
- D. Section 10 8000 Miscellaneous Specialties: Access panels for plumbing components.
- E. Section 11 4000 Foodservice Equipment: Food service sinks.

1.03 REFERENCE STANDARDS

- A. ADA Standards Americans with Disabilities Act (ADA) Standards for Accessible Design .
- B. ASME A112.18.1 Plumbing Supply Fittings.
- C. ASME A112.19.3 Stainless Steel Plumbing Fixtures.
- D. NSF 61 Drinking Water System Components Health Effects.
- E. NSF 372 Drinking Water System Components Lead Content.
- F. UL (DIR) Online Certifications Directory.

1.04 SUBMITTALS

- A. See Section 01 3300, for submittal procedures.
- B. Product Data: Provide catalog illustrations of fixtures, sizes, rough-in dimensions, utility sizes, trim, and finishes.
- C. Manufacturer's Instructions: Indicate installation methods and procedures.
- D. Sustainable Design Documentation: Submit appropriate evidence that materials used in potable water systems comply with the specified requirements.
- E. Maintenance Data: Include fixture trim exploded view and replacement parts lists.
- F. Warranty: Submit manufacturer warranty and ensure forms have been completed in District's name and registered with manufacturer.
- G. Maintenance Materials: Furnish the following for District's use in maintenance of project.
 - 1. See Section 01 6200 Product Options and Substitutions, for additional provisions.
 - 2. Extra Faucet Washers: One set of each type and size.

1.05 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing the type of products specified in this section, with minimum three years of documented experience.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Accept fixtures on site in factory packaging. Inspect for damage.
- B. Protect installed fixtures from damage by securing areas and by leaving factory packaging in place to protect fixtures and prevent use.

1.07 WARRANTY

A. See Section 01 7836, for additional warranty requirements.

PART 2 - PRODUCTS

2.01 GENERAL REQUIREMENTS

A. Potable Water Systems: Provide plumbing fittings and faucets that comply with NSF 61 and NSF 372 for maximum lead content; label pipe and fittings.

2.02 REGULATORY REQUIREMENTS

- A. Comply with applicable codes for installation of plumbing systems.
- B. Comply with UL (DIR) requirements.
- C. Perform work in accordance with local health department regulations.
- Provide certificate of compliance from Authority Having Jurisdiction indicating approval of installation.

2.03 MOP SINK

- A. Mop Sink Manufacturers:
 - 1. IMC/Teddy Food Service Equipment; Copiague, NY; tel: (800) 221-5644; web: www.imcteddy.com.
 - a. Model FS-R with Service Sink Faucet (SSF)
 - 2. Substitutions: Refer to Division 01 General Requirements.
- B. Material: 16-gauge #304Stainless steel.
- C. Type: Rectilinear, right corner
- D. Tiling Flange Construction: Galvanized steel.
- E. Grid Strainer: Stainless steel; integral; removable.
- F. Dimensions: As indicated on drawings.
- G. Accessories:
 - 1. Service Sink Faucet (SSF): 8" centers-adjustable from 7-3/4" to 8-1/4", 5-1/8" clearance wall to center line of faucet, 11-5/8" from wall to center of outlet, polished chrome-plated finish, with built-in screwdriver stops.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Verify that walls and floor finishes are prepared and ready for installation of fixtures.

3.02 PREPARATION

A. Rough-in fixture piping connections in accordance with minimum sizes indicated in fixture rough-in schedule for particular fixtures.

PLUMBING FIXTURES

3.03 INSTALLATION

- A. Install components level and plumb.
- B. Install and secure fixtures in place with wall supports and bolts.

3.04 ADJUSTING

A. Adjust stops or valves for intended water flow rate to fixtures without splashing, noise, or overflow.

3.05 CLEANING

A. Clean plumbing fixtures and equipment.

3.06 PROTECTION

- A. Protect installed products from damage due to subsequent construction operations.
- B. Do not permit use of fixtures by construction personnel.
- C. Repair or replace damaged products before Date of Substantial Completion.

END OF SECTION

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ELECTRICAL 26 0000 TABLE OF CONTENTS

SECTION	DESCRIPTION
26 0500	ELECTRICAL GENERAL PROVISIONS
26 0501	BASIC ELECTRICAL MATERIALS AND METHODS
26 0530	CONDUIT AND WIRE
26 2416	PANELBOARDS AND TERMINAL CABINETS

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SECTION 260500

ELECTRICAL GENERAL PROVISIONS

PART 1 - GENERAL

1.01 SCOPE

- A. Work Included: All labor, materials, appliances, tools, equipment, facilities, transportation and services necessary for and incidental to performing all operations in connection with furnishing, delivery and installation of the work of this Section, complete, as shown on the Drawings and/or specified herein. Work includes, but is not necessarily limited to, the following:
 - Examine all other Sections for work related to those other Sections and required to be included as work under this Section.
 - 2. Electrical General Provisions and Requirements for electrical work.
 - 3. Division-1; General Requirements; General Conditions.
- B. Organization of the Specifications into Divisions, Sections and Articles, and arrangement of Drawings shall not control the Contractor in dividing the Contract work among Sub-Contractors or in establishing the extent of work to be performed by any trade.

1.02 GENERAL SUMMARY OF ELECTRICAL WORK

- A. The Specifications and Drawings are intended to cover a complete installation of systems. The omission of expressed reference to any item of labor or material for the proper execution of the work in accordance with present practice of the trade shall not relieve the Contractor from providing such additional labor and materials.
- B. Refer to the Drawings and Shop Drawings of other trades for additional details, which affect the proper installation of this work. Diagrams and symbols showing electrical connections are diagrammatic only. Wiring diagrams do not necessarily show the exact physical arrangement of the equipment.
- C. Before submitting a bid, the Contractor shall become familiar with all features of the Building Drawings and Site Drawings, which may affect the execution of the work. No extra payment will be allowed for failure to obtain this information.
- D. If there are omissions or conflicts between the Drawings and Specifications, clarify these points with the Owner's Representative before submitting bid and before commencing work.
- E. Provide work and material in conformance with the Manufacturer's published recommendations for respective equipment and systems.

1.03 LOCATIONS OF EQUIPMENT

- A. The Drawings indicate diagrammatically the desired locations or arrangements of conduit runs, outlets, equipment, etc., and are to be followed as closely as possible. Proper judgment must be exercised in executing the work so as to secure the best possible installation in the available space and to overcome local difficulties due to space limitations or interference of structure conditions encountered.
- B. Where outlets are placed on a wall, locate symmetrically with respect to each other, furniture, cabinets, and other features or finishes on the wall.
- C. In the event changes in the indicated locations or arrangements are necessary, due to developed conditions in the building construction or rearrangement of furnishings or equipment, such changes shall be made without cost to the Contract, providing the change is ordered before the conduit runs, etc., and work directly connected to same is installed and no extra materials are required.

- D. Coordinate and cooperate in every way with other trades in order to avoid interference and assure a satisfactory job.
- E. The location of the existing utilities, building, equipment and conduit shown on the Drawings is approximate. Verify exact locations and routing of existing systems by potholing all trench routes prior to digging the trench. Pothole at least 100 feet ahead of the actual trenching to allow space to alter the new conduit routing to accommodate existing conditions.

1.04 AIR CONDITIONING, HEATING, AND PLUMBING EQUIPMENT WIRING

Provide electrical work, materials, and control components required for proper operation of the air conditioning, heating and plumbing systems as indicated on the Electrical, Mechanical, and Plumbing Contract Documents and specified herein.

1.05 QUALITY ASSURANCE

- A. Work and materials shall be in full accordance with the latest Recommendations, Rules and Regulations as follows. The following publications shall be included in the Contract Documents Requirements. If a conflict occurs between the following publications and any other part of the Contract Documents, the Requirements describing the more restrictive provisions shall become the applicable Contract definition:
 - 1. California Code of Regulations Title 24.
 - 2. California Part 3 "California Electrical Code" CEC, Title 24 and Title 8 "Division of Industrial Safety".
 - 3. California Building Code CBC.
 - 4. California Fire Code CFC
 - 5. The National Electrical Code NEC/NFPA 70.
 - 6. The California Building Code CBC.
 - 7. National Fire Protection Agency NFPA.
 - 8. National Fire Alarm Code NFAC/NFPA 72.
 - 9. Underwriter's Laboratory UL.
 - 10. Other applicable State and Local Government Agencies Laws and Regulations.
 - 11. Electrical Installation Standards National Electrical Contractors Association (NECA) and National Electrical Installation Standards (NEIS):
 - NECA/NEIS-1: Standard of Practices for Good Workmanship in Electrical Contracting
 - b. NECA/NEIS-90: Recommended Practices for Commissioning Building Electrical Systems
 - c. NECA/NEIS-101: Standard for installing Steel Conduit (Rigid, IMC, etc.)
 - d. NECA/NEIS-407: Recommended Practice for installing Panelboards
- B. All material and equipment shall be new and shall be delivered to the site in unbroken packages. All material and equipment shall be listed and labeled by Underwriters Laboratories or other recognized Testing Laboratories, where such listings are available. Comply with all Installation Requirements and restrictions pertaining to such listings.
- C. Work and material shown on the Drawings and in the Specifications are new and included in the Contract unless specifically indicated as existing or N.I.C. (not in Contract).
- D. Keep a copy of all applicable Codes and Standards available at the job site at all times for reference while performing work under this Contract. Nothing in plans or Specifications shall be construed to permit work not conforming to the most stringent of Building Codes.

E. Where a conflict or variation occurs between applicable Codes, Standards and/or the Contract Documents, the provisions of the most restrictive provision shall become the Requirement of the Contract Documents.

1.06 SUBMITTALS (ADDITIONAL REQUIREMENTS)

A. General

- 1. Review of Contractor's submittals is for general conformance with the design concept of the Project and general compliance with the information given in the Contract Documents. Any action shown is subject to the Requirements of the Plans and Specifications. Contractor is responsible for quantities; dimensions which shall be confirmed and correlated at the job site; fabrication processes and techniques of construction; coordination of work with that of all other trades and satisfactory performance of their work.
- 2. The Contractor shall review each submittal in detail for compliance with the Requirements of the Contract Documents prior to submittal. The Contractor shall "Ink Stamp" and sign each item of the submittal with a statement "CERTIFYING THE SUBMITTAL HAS BEEN REVIEWED BY THE CONTRACTOR AND COMPLIES WITH ALL THE REQUIREMENTS OF THE CONTRACT DOCUMENTS". The Contractor shall clearly and specifically identify each individual proposed substitution, substitution of equal or proposed deviation from the Requirements of the Contract Documents with a statement "THIS ITEM IS A SUBSTITUTION".

The burden of research, preparation of calculations and the furnishing of adequate and complete Shop Drawings information to demonstrate the suitability of Contractor's proposed substitutions and suitability of proposed deviations from the Contract Documents is the responsibility of the Contractor.

- 3. Departure from the submittal procedure will result in resubmittals and delays. Failure of the Contractor to comply with the Submittal Requirements shall render void any acceptance or any approval of the proposed variation. The Contractor shall then be required to provide the equipment or method without variation from the Contract Documents and without additional cost to the Contract.
- 4. The Contractor at no additional cost or delays to the Contract shall remove any work, material and correct any deficiencies resulting from deviations from the Requirements of the Contract Documents not approved in advance by the Owner prior to commencement of work.
- 5. Shop Drawings submitted by the Contractor, which are not specifically required for submittal by the Contract Documents, or Contractor shop Drawings previously reviewed and resubmitted without a written resubmittal request to the Contractor, will not be reviewed, considered, or commented on. The respective Shop Drawing submittal/ resubmittal will not be returned to the Contractor and will be destroyed without comment or response to the Contractor. The respective submittal shall be considered null and void as being not in compliance with the Requirements of the Contract Documents.
- 6. Refer to Division-1 for Additional Requirements.

B. Material Lists and Shop Drawings

1. Submit material list and Equipment Manufacturers for review within 35 days of award of Contract. Give name of Manufacturer and where applicable, brand name, type and/or catalog number of each item. Listing of more than one Manufacturer for any one item of equipment, or listing items "as specified", without both make and model or type designation, is not acceptable. Shop Drawings shall not be submitted before review completion of Manufacturers list. The right is reserved to require submission of samples of any material whether or not particularly mentioned herein.

- 2. After completion of review of the Material and Equipment Manufacturers list, submit Shop Drawings for review. Shop Drawings shall be submitted in completed bound groups of materials (i.e., all lighting fixtures or all switchgear, etc.). The Contractor shall verify dimensions of equipment and be satisfied as to fit and that they comply with all Code Requirements relating to clear working space about electrical equipment prior to submitting Shop Drawings for review. Submittals, which are intended to be reviewed as substitution or departure from the Contract Documents, must be specifically noted as such. The Requirements of the Contract Documents shall prevail regardless of the acceptance of the submittal.
- 3. Each Shop Drawing item shall be identified with the Specification Section and paragraph numbers, lighting fixture types and Drawing sheet numbers; the specific Shop Drawing is intended to represent. Shop Drawings 11-inches by 17-inches or smaller in size shall be bound in 3-ring binders. Divider tabs shall be provided in the 3-ring binders identifying and separating each separate Shop Drawing submittal item. Shop Drawings larger than 11-inches by 17-inches, Shop Drawing pages/sheets submittals shall be sequentially numbered with unique alphanumeric numbering system to facilitate correspondence referencing identification of individual sheets.
- 4. The time required to review and comment on the Contractor's submittals will not be less than 14 calendar days, or more than 21 calendar days after receipt of the submittals at the office of FBA Engineering. The review of Contractor submittals and return to Contractor of submittals with review comments will occur in a timely manner conditioned upon the Contractor complying with all of the following:
 - a. The submittals contain complete and accurate information, complying with the Requirements of the Contract Documents.
 - b. Contractor's submittals are each marked with Contractor's approval "stamp", and with Contractor signatures.
 - c. The submittals are received in accordance with a written, Shop Drawing submittal schedule for each submittal. The Contractor distributes the schedule not less than 35-calendar days in advance of the Shop Drawing Submittals, and the schedule identifies the calendar dates, the Contractor will deliver the various submittals for review.
- 5. Shop Drawings shall include the Manufacturers projected days for shipment from the factory of completed equipment, after the Contractor releases the equipment for production. It shall be the responsibility of the Contractor to insure that all material and equipment is ordered in time to provide an orderly progression of the work. The Contractor shall notify the Owner's Representative of any changes in delivery, which would affect the project completion date.
- 6. Submittal Identification
 - a. Each submittal shall be dated: with submittal transmission date; sequentially numbered and titled with submittal contents identification and applicable Specification/Drawing references (i.e., Submittal dated: 5/12/98 Submittal #4 Contents: Branch circuit panelboards Sheet #E5.1 and transformers Specification Section 260501 Paragraph 2.11, etc.).
 - b. Each resubmittal shall be dated: with original submittal date and resubmittal transmission dates; sequentially numbered with original submittal number and sequential resubmittal revision number and titled with submittal contents identification and applicable Specifications/Drawing references (i.e., Original Submittal Date: 5/12/98 Resubmittal Date: 10/9/98 Original Submittal #4 resubmittal Revision R2 Contents: Transformer resubmittal Specification Section 26 0501 Paragraph 2.11, etc.).

- c. Contractor shall provide a written response narrative with each resubmittal.
 Describe each response-action, resubmittal addition, change and deletion.
 Correspond to each response to A/E specific review comment.
- C. The Contractor shall be responsible for incidental, direct and indirect costs resulting from the Contractor's substitution of; or changes to; the specified Contract Materials and Work.
- D. The Contractor shall pay, upon request by the Owner's Representative, a fee for the Owner's Representative time involved in the review of substitution submittals and design changes resulting from the Contractor's requested substitutions. The fee shall be not less than \$125.00 per hour but, in no case, less than stated in Division-1, whichever is greater.
- E. Maintenance and Operating Manuals
 - 1. The Contractor shall furnish three copies of type-written maintenance and operating manuals for all electrical equipment, fire alarm equipment, sound system equipment, etc., to the Owner.
 - 2. Instruct Owner's personnel in correct operation of all equipment at completion of project. Provide the quantity and duration of instruction class as specified; but in no case less than two 4-hour duration separate instruction classes for each individual equipment group furnished as part of the Contract. Instruction classes shall be presented by Manufacturer's Authorized Field Service Engineer at the project site. Instruction class size shall be at the Owner's discretion, not less than one or more than fifteen students shall attend each instruction session. Submit fifteen written outline copies of the proposed instruction class curriculum, 14-days prior to the class-scheduled dates.
 - a. Each of the individual instruction classes shall be recorded to provide a permanent instruction reference for the Owner. The recordings shall be made using audio and color full motion high-definition (HD) video with audio-video digital recording, battery operated cameras, for each instruction session.
 - b. Provide each instruction presenter with a personal portable "wireless" single channel FM microphone system, battery operated, transmit the audio voice to the camera audio input and insure voice and video are synchronized. Provide a matching receiver(s) for each video camera.
 - c. Provide a minimum of four standard High-Definition (HD), audio-video DVD-ROM recordings of each instruction session. Identify and label each DVD-ROM with date and instruction session name.
 - 3. Maintenance and operating manuals shall be bound in three ring, hard-cover, plastic binders with table of contents. Manuals shall be delivered to the Owner's Representative, with an itemized receipt.
- F. Portable or Detachable Parts: The Contractor shall retain in his possession, and shall be responsible for all portable and detachable parts or portions of the installation such as fuses, keys, locks, adapters, locking clips, and inserts until final completion of Contract Work. These parts shall then be delivered to the Owner's Representative with an itemized receipt.
- G. Record Drawings (Additional Requirements)
 - Provide and maintain in good order a complete set of electrical Contract "Record" prints.
 Changes to the Contract to be clearly recorded on this set of prints. At the end of the Project, transfer all changes to one set of transparencies to be delivered unfolded to the Owner's Representative.
 - 2. The actual location and elevation of all buried lines, boxes, monuments, vaults, stub-outs and other provisions for future connections shall be referenced to the building lines or other clearly established base lines and to approved bench marks. If any necessary dimensions are omitted from the Record Drawings, the Contractor shall, at the Contractor's own expense, do all excavation required to expose the buried work and to establish the correct locations.

- 3. The Contractor shall keep the "Record" prints up to date and current with all work performed.
- 4. Refer to Division-1 for Additional Requirements.

1.07 CLEANING EQUIPMENT, MATERIALS, PREMISES

All Parts of the Equipment shall be thoroughly cleaned of dirt, rust, cement, plaster, etc., and all cracks and corners scraped out clean. Surfaces to be painted shall be carefully cleaned of grease and oil spots and left smooth, clean and in proper condition to receive paint finish.

1.08 JOB CONDITIONS - PROTECTION

Protect all work, materials and equipment from damage from any cause whatever and provide adequate and proper storage facilities during the progress of the work. Provide for the safety and good condition of all the work until final acceptance of the work by the Owner and replace all damaged or defective work, materials and equipment before requesting final acceptance.

1.10 IDENTIFICATION

A. Equipment Nameplates

- Panelboards, terminal cabinets, circuit breakers, disconnect switches, starters, relays, time switches, contactors, push-button control stations, and other apparatus used for the operation or control of feeders, circuits, appliances, or equipment shall be properly identified by means of descriptive nameplates or tags permanently attached to the apparatus and wiring.
- 2. Provide nameplate label on electrical service entrance equipment describing available short circuit information calculated by the Contractor, including:
 - a. Calculation date, month-day-year.
 - b. Calculate maximum available short circuit fault current.
 - Description of parameters and changes affecting the Requirements for recalculation of the fault current information.
- 3. Electrical equipment including switchgear, switchboards, electric panels and control panels, motor control centers, combination motor starters, transformers, disconnects, etc., shall each be labeled by the Manufacturer with "Electric-Arc-Flash" warning signs. The signs shall explain a hazard to personnel may exist if the equipment is worked on while energized or operated by personnel while energized. The sign shall instruct personnel to wear the correct protective equipment/clothing (PPE) when working "Live", or operating "Live" electrical equipment and circuits.
- 4. Nameplates shall be engraved laminated phenolic, rated UV-resistant for wet locations and outdoor locations, fade resistant. Shop Drawings with dimensions and format shall be submitted before installation. Attachment to equipment shall be with escutcheon pins, rivets, self-tapping screws or machine screws. Self-adhering or adhesive backed nameplates shall not be used.
- 5. Provide black-on-white laminated plastic nameplates engraved in minimum ¼-inch high letters to correspond with the designations on the Drawings. Provide other or additional information on nameplates where indicated.
- B. Plates: All cover and device plates shall be furnished with engraved or etched designations under any one of the following conditions (minimum character size not less than 0.188 inch. Engraving shall indicate circuits and equipment controlled or connected):
 - 1. More than two devices under a common coverplate.
 - 2. Lock switches.
 - 3. Pilot switches.

- 4. Switches in locations from which the equipment or circuits controlled cannot be readily seen.
- 5. Manual motor starting switches.
- 6. Where so indicated on the Drawings.
- 7. As required on all control circuit switches, such as heater controls, motor controls, etc.
- 8. Receptacles other than standard 15 amp 120 volt duplex receptacles; shall indicate circuit voltage, ampere, phase and source circuit number.
- 9. Low voltage and signal system outlets.

C. Wire and Cable Identification

- 1. Provide identification on individual wire and cable including signal systems, fire alarm, electrical power systems (each individual phase, neutral and ground), empty conduit pull ropes, and controls circuit.
- 2. Permanent identification shall be provided at each termination location, splice location, pullbox, junction box and equipment enclosure.
 - a. Individual wire and cable larger than #6AWG or 0.25-inch diameter, shall be provided with polypropylene identification tag holders, with yellow polypropylene tags inter-changeable black alphanumeric characters, character height 0.25 inch. Attach identification tags with plastic "tie" wraps, minimum of two for each tag as manufactured by Almetek Industries-"EZTAG" Series; or TECH Products "EVERLAST" Series.
 - b. Individual wire and cable #6AWG and smaller or smaller than 0.25 inch diameter, shall be provided with water and oil resistant, flexible, self-laminating pressure sensitive machine embossed plastic tags that wrap a minimum of 360 degrees around the wire/cable diameter. The entire tag shall then be covered with a clear flexible waterproof plastic cover wrapped a minimum of 540 degrees around the wire/cable diameter and completely covering the identification. As manufactured by: Brady Identification; or 3M; or Panduit.
 - c. Each identification tag location shall indicate the following information: circuit number, circuit phase, source termination and destination termination equipment name (or out-let number as applicable).
- 3. Install permanent identification after installation/pulling of wire/cable is complete, to prevent loss or damage to the identification.
- D. Cardholders and cards shall be provided for circuit identification in panelboards. Cardholders shall consist of a metal frame retaining a clear plastic cover permanently attached to the inside of panel door. List of circuits shall be typewritten on card. Circuit description shall include name or number of circuit, area, and connected load.
- E. Junction and pullboxes shall have covers stenciled with box number when shown on the Drawings, or circuit numbers according to panel schedule. Data shall be lettered in a conspicuous manner with a color contrasting to finish.

1.10 ASBESTOS, POLYCHLORINATED BIPHENYL (PCB) OR HAZARDOUS WASTE

It is understood and agreed that this Contract does not contemplate the handling of asbestos, PCB or any hazardous waste material. If asbestos, PCB or any hazardous waste material is encountered, notify the Owner's Representative immediately. Do not disturb, handle or attempt to remove.

1.11 ELECTRICAL WORK CLOSEOUT

- A. Prepare the following items and submit to the Owner's Representative before final acceptance.
 - 1. Two copies of all test results as required under this Section.

- 2. Two copies of local and/or State Code Enforcing Authority's Final Inspection Certificates.
- 3. Copies of Record Drawings as required under the General Conditions, pertinent Division One Sections and Electrical General Provisions.
- 4. Notify the Owner's Representative in writing when installation is complete and that a Final Inspection of this work can be performed. In the event any defect or deficiencies are found during this final inspection they shall be corrected to the satisfaction of the Owner's Representative before final acceptance can be issued.

END OF SECTION 26 0500

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SECTION 260501

BASIC ELECTRICAL MATERIALS AND METHODS

PART 1 - GENERAL

1.01 SCOPE

- A. Work Included: All labor, materials, appliances, tools, equipment, facilities, transportation and services necessary for and incidental to performing all operations in connection with furnishing, delivery and installation of the work of this Section, complete as shown on the Drawings and/or specified herein. Work includes, but is not necessarily limited to the following:
 - 1. Examine all other Sections for work related to those other Sections and required to be included as work under this Section.
 - 2. General Provisions and Requirements for electrical work.

1.02 SUBMITTALS (ADDITIONAL REQUIREMENTS)

- A. Submit product data sheets for all outlet boxes, floor boxes, wiring devices, device plates, relays, contactors, timeswitches, and disconnects fuses.
- B. Submit detailed Shop Drawings including Dimensioned Plans, elevations, details, schematic and point-to-point wiring diagrams and descriptive literature for all component parts for transformers, relays, time clocks, and photocells.

PART 2 - PRODUCTS

2.01 OUTLET AND JUNCTION BOXES

A. General:

- 1. Flush or concealed outlet boxes and junction boxes.
 - a. Non-masonry and/or non-concrete locations provide pressed steel boxes. Steel thickness not less than 0.062-inch, hot-dip galvanized. Knockout (KO) type with conduit entrances and quantities size to match conduits shown connecting to respective junction box and outlet box.
 - b. UL-514 listed and labeled.
 - c. Minimum required box depth is exclusive of extension-ring depth.
 - d. Provide all boxes with matching cover plates. Cover plates shall be gasketed water-tight in wet and outdoor locations.
 - e. Boxes installed in masonry or concrete shall be UL "concrete-tight" approved for installation in concrete, and shall allow the placing of conduit without displacing reinforcing bars.
- 2. Provide boxes of proper Code size for the number of wires or conduits passing through or terminating therein. In no case shall box be less than 4.0-inch square by 2.125-inches deep, unless specified elsewhere or noted otherwise on the Drawings. 2.5-inches minimum depth for box width's exceeding 2-gang.
- 3. Increase the minimum outlet box size to 4.69-inches square by not less than 2.125-inches deep, where one or more of the following conditions occurs:
 - a. More than two conduits connect to the outlet box.
 - b. Circuit or Conduit "homerun" connects to outlet box.

- 4. Signal, Communication and Low Voltage:
 - a. Individual audio/visual, telephone, computer or data outlets: 4.69-inch square by 2.125-inch deep minimum with two gang single gang] gang extension ring on flush boxes.
 - b. Combination signal/telephone/data or computer outlets: 4.69-inch square by 2.125-inch deep minimum with 2-gang wide extension ring on flush boxes.
- 5. Junction boxes shall be sized to comply with the following:
 - a. Code Requirements size based on the conduit quantities, conduit sizes and wirefill connected to the junction box.
 - b. Junction box minimum size shall not be less than 4.69-inches by 4.69-inches by 2.5-inches deep, but not less than size indicated on the Drawings or required by Code.
- 6. Provide extension rings on flush outlets to finish face of extension ring flush with finished building surfaces. Extension ring shall match outlet box construction and contain "attachment mounting-tabs" for wiring devices. Extension rings shall be "screw-attached" to respective outlet box and maintain "ground" bonding continuity.
- 7. Outlet boxes installed in outdoor locations, or in wet locations, or in concrete/masonry, shall be cast-iron or cast-bronze, with threaded conduit hubs. UL rated for wet locations.
 - a. Aluminum boxes shall NOT be in contact with concrete or masonry. Die-cast aluminum or cast aluminum water-tight electrical outlet boxes with threaded hubs may be provided as an alternate to cast-iron or cast-bronze outlet boxes, only where one or more of the following conditions occur:
 - 1) Outdoor locations above finish grade.
 - 2) Indoor wet locations surface or flush in walls or ceilings.
- 8. Provide fixture-supporting device in outlet boxes for surface mounted fixtures as required.
- 9. Provide solid gang boxes for three or more devices, typical for line and low voltage switches, receptacles, low voltage/signal outlets, etc. for mounting devices behind a common device plate.
- 10. Provide isolation barriers in outlet boxes:
 - a. Between line voltage and low voltage devices.
 - b. Where more than one device is installed in an outlet box.
 - c. Between 277-volt and 120-volt devices.
 - d. Between devices connected to emergency and non-emergency circuits of all voltages.
- 11. Outlet boxes installed penetrating into fire rated walls, fire rated floors, fire rated ceilings and all fire rated construction. The outlet boxes shall be UL listed, classified and labeled, for fire rated and temperature rated penetration of the respective fire rated surface and fire rated construction. The outlet box fire rating and temperature rating shall equal or exceed the fire/temperature rating of the surface/construction being penetrated. Provide UL listed and labeled supplemental fire and temperature protection to maintain ratings:
 - a. Wall and ceiling penetrations, tumescent fire wrap (external or internal of outlet box).
- C. Surface Outlet Boxes
 - 1. Surface mounted outlet boxes, cast iron Type FS or FD, with threaded hubs as required. Box interior dimensions and interior volume capacity not less than required for "press"

steel boxes", and "sheet steel boxes". Provide plugs in all unused openings. Provide weather-proof gaskets for all exterior boxes.

2.02 PULLBOXES

A. General

- 1. Sizes as indicated on the Drawings and in no case of less size or material thickness than required by the Governing Code and AHJ.
- 2. Exercise care in locating pull boxes to avoid installation in drain water flow areas and to clear existing condition interferences.
- 3. UL listed and labeled for electrical circuits.

B. General Purpose Sheet Metal Pullbox

- 1. General purpose sheet steel pull boxes: Install only in dry protected locations with removable screw covers. Manufacturer's standard rust proofing and baked enamel finishes.
- 2. Weatherproof sheet steel pull boxes: Fabricate of code gauge steel. All surfaces interior and exterior hot-dip galvanized steel. Gasketed weather-tight cover of same material. Manufacturer's standard baked exterior enamel finish.

2.03 SWITCHES

A. General

- Provide wiring device circuit switches totally enclosed, electrical insulating Bakelite or electrical insulating composition base, manual operator type with 277 volt 60Hz AC rating for full capacity contacts rated for incandescent lamp loads, fluorescent lamp loads and motor loads. Switch mounting-ears for screw attachment to outlet box. Switches shall be UL listed and labeled; conform to NEMA-WD1 and WD6.
- 2. Switch controlling (on-off) rated for all lighting loads and all non-lighting loads; switch ratings shall be 20-amp; unless indicated otherwise on Drawings.
- 3. Color as selected by Owner's Representative. Switches controlling circuits connected to emergency power shall be red.
- 4. All switches shall be of the same Manufacturer.
- 5. Where switches are mounted in multiple gang assembly and are operating at 277 volts and/or 277 volts and 120 volts or emergency/non-emergency and mounted in same outlet box, there shall be an insulating barrier installed between each switch.
- 6. Devices shall additionally be listed and labeled as UL-All Weather-Resistant for the following install locations:
 - a. Devices indicated on Drawings as Weather-Proof (W.P.).
 - b. Devices installed in outdoor locations
 - c. Installed in classified wet or damp area locations both indoor and outdoor.
- 7. Wiring devices shall be listed and labeled for connection of both "solid" and "stranded" copper circuit conductors.
- 8. Switches with ampere and voltage ratings different than described herein. The different rated switches shall have the same characteristics and performance as the respective described switches, except for differing ampere and voltage characteristics.

B. Switches Heavy Duty (Toggle – Type)

1. Single Pole Switches – 20 amp at 277V

ManufacturerToggle TypeLock TypeHubbell#HBL1221#HBL1221-LLegrand/P&S#20AC1#20AC1-L

Leviton #1221 #1221-L Cooper-Arrow/Hart #AH1221 #AH1221-L

2.04 RECEPTACLES

A. General

- 1. All receptacle wiring devices in flush type outlet boxes shall be installed with a bonding jumper to connect the box to the receptacle ground terminal. Grounding through the receptacle mounting straps is not acceptable. The bonding jumper shall be sized in accordance with the branch circuit protective device as tabulated herein under "Grounding". Bonding jumper shall be attached at each outlet to the back of the box using drilled and tapped holes and washer head screws 6-32 or larger (except isolated ground receptacles). For receptacles in surface mounted outlet boxes direct metal-to-metal contact between receptacle mounting strap (if it is connected to the grounding contacts) and outlet box may be used. Receptacle mounting-ears for screw attachment to outlet box. Receptacle shall be UL listed and labeled; conform to NEMA-WD1 and WD6.
- 2. All receptacles shall be same Manufacturer.
- 3. Receptacle color as selected by Owner's Representative. Receptacles connected to emergency power circuits shall be red.
- 4. Tamper Resistant Receptacle
 - a. Devices shall additionally be listed and labeled as tamper resistant, provide tamper resistant receptacles in buildings containing: dormitories, guestrooms, condominiums, housing/residences, apartments, dwellings, hotels/motels, secondary schools K through 12th grade, child-care/day-care/kindergarten, hospital pediatric-care units and other locations required by AHJ.
 - b. The electrical receptacles shall be rated "Tamper-Resistant-Receptacle" (TR), UL-TR (RTRT). Spring loaded shutters shall automatically open-close (unblock-block) the receptacle slots, when the plug-in (cap) insertion and removal occurs.
 - c. Typical for 15-amp and 20-amp receptacles. Modify Manufacturer's catalog number description to include tamper resistant receptacle function.
- 5. Wiring devices shall be listed and labeled for connection of both "solid" and "stranded" copper circuit conductors.
- 6. Duplex convenience receptacles and 120-volt single phase branch circuits.
 - a. Duplex (convenience) receptacle, wiring device with two single receptacles with the same electrical rating, integrated into a single assembly by the Manufacturer.
 - b. 20-amp branch circuits with a single duplex convenience receptacle connection on each circuit, receptacles shall be rated for 20-amp.
 - c. 15-amp and 20-amp branch circuits with two or more duplex convenience receptacle connections each circuit, receptacle shall be rated 15-amp or 20-amp.
- 7. Devices shall additionally be listed and labeled as UL-All Weather-Resistant, provide weather resistant receptacles for the following install locations. Modify Manufacturer's catalog number descriptions, shall include all-weather-resistant UL listing and labeling:
 - a. Devices indicated on Drawings as Weather-Proof (W.P.).
 - b. Devices installed in outdoor locations.
 - c. Devices installed in classified as damp or wet locations both indoor and outdoor.
 - d. All GFCI (ground-fault) receptacles all locations.
- 8. Receptacles with ampere and voltage ratings different than described for duplex convenience receptacles. The different rated receptacles shall have the same

characteristics and performance as the respective duplex convenience receptacles, except for differing ampere and voltage characteristics.

- 9. Receptacles shall be GFCI type for the following locations:
 - a. located within 84-inches of a sink or hosebib shall be GFCI receptacles.
 - b. Devices installed in outdoor locations.
 - c. Devices installed in classified as damp or wet locations both indoor and outdoor.
 - d. Devices indicated on Drawings as GFCI or Weather-Proof (W.P.).
- B. Duplex convenience receptacles.
 - Shall be grounding type, 120 volt and shall have two current carrying contacts and one grounding contact which is internally connected to the frame. Outlet shall accommodate standard parallel blade cap and shall be side wired. Receptacles shall be tamper resistant—TR, UL-TR.
 - 2. GFCI receptacles shall be all Weather-Resistant and wet location rated. Rated 120 volt 60Hz AC, 20-amp, unless indicated otherwise on Drawings.
 - 3. Heavy Duty Industrial Grade

	<u>Manufacturer</u>	<u>NEMA 5-15R</u>	<u>NEMA 5-20R</u>	NEMA 5-20R-GFCI
a.	Legrand/P&S	#5262	#5362	#2095HG
b.	Leviton	#5262	#5362	#W7899
c.	Hubbell	#CR5252	#5362	#GFR8300
d.	Cooper-Arrow/Hart	#AH5262	#AH5362	#WRVGF20

- C. Other Switches, Receptacles, Devices, and Outlets.
 - Special devices, outlets and outlet locations shall be as indicated on the Drawings.
 Modify device and outlet characteristics to accommodate the actual install location
 conditions for each outlet.

2.05 PLATES

- A. Metal cover plates for devices
 - 1. Provide cover plates for every line voltage and low voltage switch, receptacle, telephone, computer, television, signal and other device outlets.
 - a. All line voltage circuit plates shall be metal, 0.040-inch stainless steel Type 302 alloy, composed of 18% chromium and 8% nickel.
 - b. Plates for low voltage signal systems may be metal or non-metal. Non-metal plates shall be high-abuse, hard-service and high-impact resistant.
 - 2. Plates shall be as manufactured by P&S; or Hubbell; or Leviton; or General Electric.

2.06 VANDAL-PROOF FASTENINGS

Provide approved vandal-proof type screws, bolts, nuts where exposed to sight throughout the project. Screws for such items as switch plates, receptacle plates, fixtures, communications equipment, fire alarm, blank covers, wall and ceiling plates to be spanner head stainless steel, tamperproof type. Provide Owner with six screwdrivers for this type.

2.07 DISCONNECTS (SAFETY SWITCHES)

- A. General
 - 1. Disconnect switches shall all be rated:
 - a. 600 volt 60Hz AC for all safety switches.
 - b. NEMA Type HD, quick-make, quick-break, H.P.-rated.

- c. Fused Class "R", in NEMA Type I enclosure, lockable.
- d. Number of poles and amperage as indicated on the Drawings.
- 2. Provide internal neutral bus, ground-lug and conductor landing lugs, size to match conductors shown on Drawings. Switch access door shall be interlocked with switch to prevent access inside switch when switch is "on" closed position.
- 3. Where enclosure is indicated W.P. (Weather-Proof) switches shall be rain-tight NEMA Type HD and NEMA 3R enclosure, lockable.
- 4. Maximum voltage, current and horsepower rating clearly marked on the switch enclosure and switches having dual element fuses shall have rating indicated on the nameplate.
- 5. Switch and fuses ampere rating shall also comply with Manufacturer recommendation for the connected load.

PART 3 - EXECUTION

3.01 GROUNDING (ADDITIONAL REQUIREMENTS)

- A. Grounding shall be executed in accordance with all applicable Codes and Regulations, both of the State of California and local authorities having jurisdiction.
- B. Each pullbox or any other enclosure in which several ground wires are terminated shall be equipped with a ground bus secured to the interior of the enclosure. The bus shall have a separate lug for each ground conductor. No more than one conductor shall be installed per lug.
- C. The maximum resistance to ground shall not exceed 5 ohms.

3.02 OUTLET AND JUNCTION BOXES

A. General:

- 1. Accurately place boxes and securely fastens to structural members. Where outlets are shown at same location but at different mounting heights, install outlets in one vertical line. Where outlets are shown at same location and mounting height, mount outlets as close together in a horizontal row as possible. Where the outlet boxes for switches and receptacles are shown at the same location and mounting height, mount in common outlet box with barriers between devices. Provide single piece multi-gang cover plate for close mounted outlet boxes. Where switches are shown on wall adjacent to hinge side of doors, box shall be installed to clear door when door is fully opened.
- 2. Flush mounted boxes shall be attached to not less than two parallel studs or structure members by means of metal supports. The supports shall span between and attach to the structure members.
- 3. Surface mounted outlets shall be attached to concrete or masonry walls by means of expansion shields.
- 4. Outlet Box Horizontal and Vertical Separation: Outlet boxes and device outlet rings installed flush in walls shall be horizontally and vertically separated by not less than 24-inches (edge of box to edge of box) from device outlet boxes and rings in common wall surfaces located on the opposite (back) side of the same wall.
 - a. Where the separation cannot be maintained, provide a solid backing behind and completely enclosing each outlet box.
 - b. The backing shall extend the width of the wall cavity (i.e., between "studs" or masonry cells) behind the box and 12-inches above and below the outlet box centerline, completely enclosing the outlet box.
 - c. The backing shall consist of the following:
 - 5%-inch thick gypsum board anchored in place for "stud" wall construction.

- Solid "mortar" to completely fill the outlet box "cell" behind the box in masonry construction.
- 5. Provide metal outlet box for each device. Install devices in metal outlet boxes. Typical for all wiring devices including, switches, receptacles, line voltage devices, and low voltage/signal system devices.

3.03 SWITCHES AND RECEPTACLES-DEVICES

A. General

- 1. Provide outlet boxes for all devices, switches, receptacles, both line-voltage and low-voltage.
- 2. Devices installed in wireways shall be installed flush in wireway assembly.
- 3. Install and screw attach devices into outlet boxes and wireways.
- 4. Provide ground circuit connections to all devices.
- 5. Provide branch circuit connections to all devices.
- 6. Provide testing and commissioning for proper operation and phase/ground connectors.
 - a. Test each GFCI devices after installation and circuit connection is complete.
 - b. Test all devices for correct polarity and proper electrical energization.
- 7. Install and adjust all coverplates to be flush and level, with correct device identification.
- 8. Were one or more device occurs at the proximity with other similar devices, all of the devices shall be "granged" under one common coverplate as follows:
 - a. Duplex convenience receptacles with other proximity (within 18-inches) duplex convenience receptacles.
 - b. Lighting control switches not exceeding 20-amp switch rating with other proximity (within 18-inches) similar switches.
- B. Line-voltage Plug-In Type Receptacle Installation Orientation:
 - 1. The "ground-pin" shall face "up" at the receptacle top location (double duplex) 4-plex, individual and vertically mounted individual duplex receptacles.
 - 2. The "neutral-blade" shall face "up" at the receptacle top location on horizontally mounted duplex receptacles.

END OF SECTION 26 0501

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SECTION 26 0530 CONDUIT AND WIRE

PART 1 - GENERAL

1.01 SCOPE

- A. Work Included: All labor, materials, appliances, tools, equipment, facilities, transportation and services necessary for and incidental to performing all operations in connection with furnishing, delivery and installation of the work of this Section, complete as shown on the Drawings and/or specified herein. Work includes, but is not necessarily limited to the following:
 - 1. Examine all other Sections for work related to those other Sections and required to be included as work under this Section.
 - 2. General Provisions and Requirements for electrical work.

1.02 SUBMITTALS (ADDITIONAL REQUIREMENTS)

- A. Submit product data sheets for all wire, supports, conduit, fittings and splicing materials.
- B. Submit material list for all conduit and conduit fittings.

PART 2 – PRODUCTS

2.01 CONDUIT

A. General

- 1. The interior surfaces of conduits and fittings shall be continuous and smooth, with a constant interior diameter. Conduits and conduit fittings shall provide conductor raceways of fully enclosed circular cross section. The interior surfaces of conduits and fittings shall be without ridges, burrs irregularities or obstructions. Conduits and fittings of the same type shall be of the same uniform weight and thickness.
- 2. Type of conduit, type of conduit fittings and conduit supports shall be suitable for the conditions of use and the conditions of location of installation, based on the Manufacturer's recommendations and based on applicable Codes.
- 3. All fittings for metal conduit shall be suitable for use as a grounding means, pursuant to the applicable Code Requirements. All metal conduit and metal conduit fittings shall provide 3 second duration ground fault current carrying ratings, when installed and connected to the respective conduit, as follows:
 - a. RMC and EMT conduit fittings.
 - 1) 0.5-inch through 1.5 inch conduit/fitting size 10,000 amp RMS.
 - 2) 2.0-inches and larger conduit/fitting size 20,000 amp RMS.
 - b. FMC and LTFMC Conduit Fittings
 - 1) 0.5-inch through 1.25-inch conduit/fitting size 1,000 amp RMS (without external bonding jumper).
 - 2) 1.5-inch through 4.0-inch fitting size 10,000 amp RMS with bonding jumper.
- 4. Protective corrosion resistant finish for metal conduit fabricated from steel and metal conduit fittings fabricated from steel, shall be as follows:
 - a. Clean all metal surfaces (including metal threads) with acid bath "pickle" prior to coating, to remove dirt, oil and prepare surfaces for galvanizing.
 - b. Hot-dip galvanized zinc coating on all interior and exterior steel surfaces. Minimum finish zinc coating thickness shall not be less than 0.002 inches.

- c. Threads shall be hot-dip zinc coated after machine fabrication.
- d. Exterior metal surfaces shall be finished with clear organic polymer topcoat layer, after galvanizing.
- e. The inner metal surfaces of conduit fittings shall be finished with a lubricating topcoat after galvanizing, to facilitate conductor pulling through the conduit/fitting.
- 5. Threads for metal conduit and metal conduit fittings shall be taper-pipe-thread, National Pipe Standards (NPS) and shall comply with ANSI-B1.20.1.
- 6. Metal conduit termination connector fittings shall be provided with a Manufacturer installed, insulating throat bushing inside the fitting. The bushing shall protect the wire conductor insulation from cutting, nicks and abrasion during conductor installation and electrical load "cycling" after installation is complete. The bushing shall comply with UL 94V-0 flammability.
- 7. Provide conduit bonding/grounding jumper from metal enclosures with "concentric ring" knockouts, to positively ground/bond each respective conduit(s) to the metal enclosure.
- 8. Metal conduit fittings connecting to PVC coated metal conduit shall be PVC coated to match the conduit.
- 9. The conduit and fittings shall be watertight and airtight without cracks and pinholes.

B. Rigid Metal Conduit (RMC)

- 1. Rigid metal, round tubing, machine threaded at both ends.
 - a. The conduit and conduit fittings shall comply with the Requirements for an equipment grounding conductor, pursuant to applicable Codes.
- 2. RMC raceway types shall be as follows:
 - Rigid galvanized steel conduit (RGS), minimum yield strength shall be 35,000
 PSI. Shall comply with NEMA standard 5-19 (latest revision); ANSI C80.1 and ANSI-C80.4 (latest revision); UL 514-B and UL 6 (latest revisions); National Pipe Standard Specification (latest revision).
 - b. Intermediate steel conduit (IMC). Shall comply with NEMA Standard 5-19 (latest revision) ANSI-C80.6 (latest revision); UL 2142 (latest revision).

3. RMC fittings:

- a. Fittings shall be compatible with RGS and IMC.
- b. Fittings shall be rated "liquid tight".
- c. Fittings imbedded in concrete shall be rated "liquid tight" and "concrete tight".
- d. Connectors and couplings for terminating, connecting and coupling to RMC conduit shall be threaded metal.
- e. Fittings shall comply with ANSI C80.4 and ANSI C33-84 (latest revision); NEMA FB1 (latest revision); UL 514 (latest revision).
- f. Conduit seal fittings:
 - Conduit seals shall prevent the passage of gasses, liquids and vapors
 past the location of the seal installation in the conduit.
 - Conduit seals shall be suitable for installation in both vertical and horizontal conduit locations.
 - 3) Conduit seals shall be visible and accessible for inspection after installation is complete.
 - 4) Conduit seals shall be rated for the following locations:
 - a) Wet locations

- b) Classified hazardous location materials NEC Class 1 Division 1.
- c) Temperature ranges from 0 minus 20 degrees centigrade through 90 degrees centigrade.
- 5) Conduit seals, sealing compound and sealing compound dam shall be the products of the same Manufacturer.
- 4. RMC fittings as manufactured by:
 - a. For threaded enclosure, termination connection.
 - 1) Thomas & Betts 106 Series bonding locknut, 5302 series sealing ring with stainless steel retainer.
 - b. For non-threaded enclosure, termination connector.
 - 1) Thomas & Betts 370 Series watertight threaded sealing hub, 106 Series threaded bonding lock nut, Sta-Con Series enclosure bonding jumper and 3870 Series threaded ground bushing.
 - 2) Emerson-OZ/Gedney-CHMT/CHT watertight threaded hub with bonding locknut and GH50G Series enclosure bonding jumper.
 - c. For RMC to RMC conduit-to-conduit coupling
 - 1) Thomas & Betts/Erickson 674 (threaded) Series
 - 2) Emerson-OZ/Gedney Type TPC (threaded) Series
 - 3) Threaded RMC conduit couplings, product of the same Manufacturer as the RMC conduit.
 - d. For RMC Conduit Seals
 - 1) Emerson-OZ/Gedney-EYA and EYAM (threaded) Series
 - 2) Appleton-EYF and EYM (threaded) Series
- C. Electrical Metallic Tubing (EMT)
 - 1. Rigid metal round tubing, "thin wall" steel construction, with non-threaded ends.
 - a. The conduit and conduit fittings shall comply with the Requirements for an equipment grounding conductor pursuant to applicable codes.
 - b. The conduit shall be watertight and airtight without cracks and pinholes.
 - 2. EMT shall be allowed for conduit size ranges from 0.5-inch through 4.0-inches.
 - 3. Comply with ANSI C80.3, C80.4, and ANSI C33.98 (latest revisions); UL 594 and UL 797 (latest revisions); CEC Section 12500 (latest revision).
 - 4. EMT fittings:
 - Connectors and couplings for terminating, connecting and coupling to EMT conduit shall be non-threaded steel fabrication.
 - b. EMT termination connector fittings shall be as follows:
 - 1) Set screw type "concrete tight" when installed in dry interior locations.
 - 2) Compression types "raintight" and "concrete tight" when installed in wet or damp locations, outdoors and in concrete or masonry construction.
 - c. Fittings shall comply with ANSI C33.84 (latest revision); UL 514 (latest revision); NEMA FB-1.

- 5. EMT fittings as manufactured by:
 - a. For threaded and non-threaded enclosure, termination connector
 - 1) Thomas & Betts-TC721A (set screw type) Series (with locknuts).
 - 2) Emerson-OZ/Gedney-TC500I (set screw type) Series (with locknuts).
 - 3) Thomas & Betts-5123 (compression type) Series (with two locknuts).
 - Emerson-OZ/Gedney-TC600I (compression type) Series (with locknut).
 - 5) Thomas & Betts-4240 (compression type) Series (90 degree angle with locknut).
 - 6) Emerson-OZ/Gedney-TWL (compression type) Series (90 degree angle with locknut).
 - b. For EMT to EMT conduit-to-conduit coupling:
 - 1) Thomas & Betts-TK121A (set screw type) Series (with locknut).
 - 2) Emerson-OZ/Gedney-5000 (set screw type) Series (with locknut).
 - 3) Thomas & Betts-5120 (compression type) Series.
 - 4) Emerson-OZ/Gedney-TC600 (compression type) Series.
 - c. For EMT to RMC conduit to conduit combination coupling:
 - 1) Thomas & Betts-HT221 (set screw type) Series.
 - 2) Emerson-OZ/Gedney-ESR (set screw type) Series.
 - 3) Thomas & Betts-530 (compression type) Series.
 - 4) Emerson-OZ/Gedney-ETR (compression type) Series.

D. Flexible Metal Conduit (FMC)

- 1. Round flexible conduit, fabricated from a single continuous steel strip. The steel shall be factory formed into continuous interlocking convolutions to form a complete lock between steel strips and provide raceway flexibility.
- Metal to metal grounding contact shall be maintained throughout the length of the FMC conduit.
- 3. FMC shall be allowed for conduit size ranges from 0.5 inch through 4.0-inches.
- 4. FMC shall comply with ANSI-C.33.84 and ANSI C33.92; NEMA FB-1; CEC 12-1100.
- 5. FMC Fittings
 - a. FMC fittings shall be malleable iron construction or steel construction.
 - b. Fitting shall automatically cause the FMC raceway throat opening to be centered with respect to the fitting throat opening.
 - c. Straight and angled connector termination fittings shall be threaded on one end and shall include a threaded locknut, suitable for connection to threaded and unthreaded enclosures.
 - d. The attachment of the fittings to FMC shall be angled saddle type, to engage and interlock with the FMC spiral groove, and shall be unaffected by vibration.
 Direct bearing screw type fittings shall not be used.
 - e. Direct FMC conduit-to-FMC conduit coupling of FMC shall not be permitted.
 - f. Shall comply with ANSI C33.9, and ANSI C33.92 (latest revision); NEMA FB1 (latest revision); UL 514.

- 6. FMC fittings as manufactured by:
 - a. <u>Straight Termination Connectors</u> 45 and 90 Degree Angle Connectors
 Thomas & Betts- 3110 Series Thomas & Betts-3130 Series (with locknut)
 - b. FMC to EMT conduit combination coupling:

Thomas & Betts 503TB Series.

- E. Liquid Tight Flexible Metal Conduit (LTFMC)
 - 1. The metal conduit core of LTFMC shall comply with the same Requirements as FMC conduit, with the addition of a thermoplastic exterior flexible jacket over the metal core.
 - 2. The exterior jacket shall be positively locked to the metal core to prevent jacket "sleeving".
 - 3. The LTFMC shall be rated for installation and operating service temperatures of between minus 20 degrees centigrade through plus 90 degrees centigrade.
 - 4. The LTFMC jacket shall be suitable for continuous exposure to sunlight, rainwater, water vapor, mineral oils and liquid solvents, without penetrating into the conduit and without deteriorating the jacket.
 - 5. LTFMC sizes from 0.5-inch through 1.25-inches shall include an additional internal ground conductor, fabricated by the Manufacturer, as an integral part of the conduit core.
 - 6. Direct LTFMC conduit-to-LTFMC conduit coupling of LTFMC shall not be permitted.
 - 7. LTFMC shall be allowed for conduit size ranges from 0.5-inch through 4.0-inches.
 - 8. In addition to the Requirements for FMC conduit, LTFMC shall also comply with ANSI C-33.84 (latest revision); NEMA-FB1 (latest revision); CEC 12-1400 (latest revision).
 - 9. LTFMC fittings
 - a. Fittings shall include an external mechanical ground/bond wire connector.
 - b. The attachment of the fitting to LTFMC shall be threaded compression type onto the conduit core with locknut and liquid tight jacket compression seal. The fitting shall automatically prevent "sleeving" of the jacket.
 - Straight and angled termination connector fittings shall be threaded on one end and shall include locknut suitable for connection to threaded and unthreaded enclosures.
 - 10. LTFMC fittings as manufactured by:
 - a. Termination connector fittings:

Straight

45 and 90 Degree Angle Connectors

Thomas & Betts-5331 GR Series.

Appleton-STB & STN-L Series;
for use with preformed "knockouts"

Emerson- OZ/Gedney-4QSeries.

45 and 90 Degree Angle Connectors

Thomas & Betts-5341GR & 5351GR Series

Appleton-STB-L & STN-L Series for use with preformed "knockouts".

Emerson-OZ/Gedney-4Q Series

- b. LTFMC to RMC conduit to conduit combination coupling fittings:
 - 1) Thomas & Betts-5271 GR Series.
 - 2) Emerson-OZ/Gedney-4Q Series

F. Conduit Bodies Conduit Fitting

- Conduit bodies shall provide conductor access with a removable conduit body cover and wiring area enclosed in metal housing. The conduit body shall facilitate pulling conductors.
- 2. In-line form "C" conduit bodies shall be prohibited.
- 3. The interior space "length" of 90 degree "elbow" conduit bodies shall not be less than six times the diameter size of the largest conduit connecting to the conduit body.
- 4. Conduit body covers shall be removable, gasketed; watertight "domed" metal covers "Mogul-Type" with threaded screw attachment to the conduit body.
- 5. Lubricated, reusable, wire roller guards inside the conduit body shall protect wire from insulation damage during wire "pulling".
- 6. Conduit body fittings shall comply with UL 514.
- 7. Conduit bodies as manufactured by:
 - a. For RMC Conduit
 - 1) Hubbell/Killark LB/Mogul (90-degree elbow) Series threaded body.
 - 2) Emerson-OZ/Gedney LB 6X/Mogul (90 degree elbow) Series threaded body.
 - 3) Appleton NEC6X-LB/Mogul (90 degree elbow) Series threaded body.

b. For EMT Conduit

1) Same as for RMC conduit. Provide EMT to RMC conduit combination coupling fitting for each outlet body connection.

2.02 CONDUIT SUPPORTS

A. General

- 1. Conduit Supports, hangers and fasteners for metal conduit shall be steel, hot dip zinc galvanized.
- 2. Threaded hardware shall be continuous, free running threads.
- 3. Conduit support systems, including support channels, pipe clamps, braces, anchors, hardware, fasteners, shall be sized to support the full capacity circuit conductors weight, plus the installed conduit weight, plus the conduit fitting weight and support hardware weight, plus a 300% additional weight capacity safety factor.
- 4. Provide lock washer at each "bolted"/threaded connection.
- 5. Conduit supports, fasteners, channels, braces, hardware, anchors, pipe clamps, and hangers as manufactured by Unistrut or Kindorf.
- 6. Supports shall be free of "BURRS" and sharp edges.
- 7. Metal supports cut in the field shall be zinc galvanized after cutting to prevent rust.

B. Conduit Hangers

- 1. Threaded steel hanger rods.
 - a. Hanger rods smaller than 0.375-inches in diameter shall not be used for support of individual conduits.
 - Hanger rods smaller than 0.5-inches in diameter shall not be used for support of multiple conduits.
- 2. Conduit hanger wires shall be not less than 12-gauge steel.

- 3. Conduit hangers shall attach to structure fasteners with steel "Clevis" or "Swing" hangers and shall provide a minimum of 45 degrees of angular movement in any direction at the point of the conduit hanger attachment to the structure fasteners.
- 4. Conduits individually suspended by conduit hangers shall fasten to the respective hangers with "Clevis" type pipe hangers. The pipe hangers shall be steel, adjustable to fit conduit size and shall completely enclose the conduit circumference.

C. Conduit Support Channels

- 1. "C" channels shall be factory preformed with a minimum 12 gauge thickness metal. The channel shall be factory "punched" with regularly spaced slotted holes for fastener attachments along the length of the channel.
- 2. The "C" channel shall not deflect more than 0.1-inch between channel supports at maximum installed design load, including required safety factor.
- 3. Channels shall comply with ANSI-1008 (latest revision) and ASTM-A569 (latest revision).
- 4. Channels shall provide "turned lips" at longitudinal edges to hold (lock-in) fasteners.
- 5. Conduit support channels suspended from conduit hangers shall attach to conduit hangers with treaded connections. Provide a minimum of two hangers (trapeze style) connected to each channel.
- Non-suspended conduit support channels shall connect to structure fasteners with threaded connectors.

2.03 ELECTRICAL POWER WIRE AND CABLE

A. General

- 1. All wire and cable shall be single-conductor, annealed copper, insulated 600 volt, #12 AWG minimum unless specifically noted otherwise on the Drawings. At the direction of the Owner, aluminum conductors shall not be permitted.
- Conductors #10AWG and smaller shall be solid. Conductors #8AWG and larger shall be stranded.
- 3. Insulation of conductor connected to circuit protection devices required to be "100%" rated, shall be 90 degree centigrade rated insulation.
- 4. Insulation of conductors installed outdoors, on grade or underground, insulation shall be rated for wet locations.
- 5. Insulation of conductors installed outdoors, installed exposed to the sun, installed in exposed conduits, insulation shall be rated for high-temperature 90 degrees centigrade.
- 6. Insulation of branch circuit conducts installed in light fixtures, insulation shall be rated for 90 degrees centigrade.
- 7. Conductor exposed to oil, insulation and jacket shall be oil resistant, complying with "Oil Resistant-1" and "Oil Resistant-2" UL 83.

B. Conductor Insulation

- 1. 600 Volt AC and/or DC insulated conductors installed entirely inside conduits, or enclosed inside wireways, or enclosed inside raceways, insulation shall be rated as follows.
- 2. Indoor above Grade locations either concealed or exposed.
 - a. Dual rated THHN and THWN
 - b. Individually rated THHN-2
 - c. Individually rated THWN-2
 - d. XHHW-2

- 3. Outdoor above Grade either concealed or exposed.
 - a. XHHW-2
 - b. THWN-2
 - c. THW-2
- 4. Outdoor below Grade or outdoor on Grade.
 - a. XHHW-2
 - b. THWN-2
 - c. THW-2
- 5. All other enclosed raceway locations not described above.
 - a. XHHW-2
 - b. THWN-2
 - c. THW-2
- C. Insulation Color Coding and Identification
 - 1. The following color code for branch circuits:
 - a. Neutral . . . White (Tape feeder neutrals with white tape near connections)
 - b. Normal Power

120/208 Volt480/277 VoltGround GreenGround GreenPhase A BlackPhase A BrownPhase B RedPhase B OrangePhase C BluePhase C Yellow

- 2. When individual neutral conductors are shown for each branch circuit, the color code for the neutral conductors shall be as follows:
 - a. 120/208 volt; Phase A White with Black stripe; Phase B White with Red stripe; Phase C White with Blue stripe.
 - b. 277/480 volt; Phase A White with Brown stripe; Phase B White with Orange stripe; Phase C White with Yellow stripe.
- 3. Color coding for mechanical and plumbing control wiring shall be an agreed upon color code between the Mechanical/Plumbing Contractor and the Electrical Contractor, and color code shall be submitted to the Owner's Representative in writing for approval prior to installation.
- D. Panel and Equipment Feeders
 - 1. Wire size shown on the Drawings is for copper conductors. At the direction of the Owner, aluminum conductors shall not be permitted.

PART 3 - EXECUTION

3.01 GROUNDING

- A. Grounding shall be executed in accordance with all applicable Codes and Regulations, both of the State and local authorities having jurisdiction.
- B. Where nonmetallic conduit is used in the distribution system, the Contractor shall install the proper sized copper ground wire in the conduit with the feeder for use as an equipment ground. The electrical metallic raceway system shall be grounded to this ground wire.

- C. The maximum ground/bond resistance to the grounding electrode shall not exceed 1 ohms from any location in the electrical system. The maximum ground resistance of the grounding electrode to earth shall not exceed 5-ohms.
- D. Ground/Bond Conductors
 - 1. Provide an additional, dedicated, green insulation equipment ground/bond wire inside each conduit type and raceway as follows. Size the ground/bond conductors to comply with CEC Requirements. The metal conduit or raceway shall not be permitted to serve (function) as the only (exclusive) electrical ground return path:
 - a. All types of nonmetallic conduit and all types of non-metallic raceways including but not limited to: RNMC Rigid Nonmetallic Conduit.
 - b. FMC Flexible Metal Conduit.
 - c. LTFMC Liquid Tight Flexible Metal Conduit.
 - d. Metal and non-metal raceways.
 - e. RMC Rigid Metal Conduit.
 - f. EMT Electrical Metal Tubing.
 - 2. The equipment ground/bond wire shall be continuous from the electrical circuit source point of origin to the electrical circuit end termination utilization point as follows:
 - a. Every conduit and raceway path containing any length of the above identified conduits or raceway.
 - b. Every conduit path and raceway path connected to any length of the above-identified conduits and raceways.
 - 3. The equipment ground/bond wire shall be sized as follows, but in no case smaller than indicated on the Drawings. Install equipment ground/bond wire in each conduit/race-way, with the respective phase conductors:

Feeder, Subfeeders and Branch	Minimum Equipment
Circuit Protection	Ground Wire Size
15 amp	#12
20 amp	#12
0 to 60 amp	#10
70 to 100 amp	#8
101 to 200 amp	#6
201 to 400 amp	#2
401 to 600 amp	#1

- 4. Splices in ground/bond wires shall be permitted only at the following locations:
 - a. Ground buses with listed and approved ground lugs.
 - b. Where exothermic welded ground/bond wire splices are provided.
- 5. Provide ground/bond wire jumpers for conduit fittings with ground lugs, expansion and deflection conduit fittings at conduit fittings connecting between metallic and non-metallic raceways and to bond metal enclosures to conduit fittings with ground lugs.
- E. Where conductors are run in parallel in multiple raceways, the grounding conductor shall be run in parallel. Each parallel equipment-grounding conductor shall be sized on the basis of the ampere rating of the overcurrent device protecting the circuit conductors in the raceway. When conductors are adjusted in size to compensate for voltage drop, grounding conductors, where required, shall be adjusted proportionately in size.
- F. Ground conductors for branch circuit wiring shall be attached at each outlet to the back of the box using drilled and tapped holes and washer head screws, 6-32 or larger.

G. Each panelboard, switchboard, pull box or any other enclosure in which several ground wires are terminated shall be equipped with a ground bus secured to the interior of the enclosure. The bus shall have a separate lug for each ground conductor. No more than one conductor shall be installed per lug.

3.02 CONDUIT

A. General

- 1. The sizes of the conduits for the various circuits shall be as indicated on the Drawings, but not less than the conduit size required by Code for the size and quantity of conductors to be installed in the conduit.
- Conduits shall be installed concealed from view. Install conduits concealed in walls, concealed below floors and concealed above ceilings, except as specifically noted otherwise.
 - a. Conduits shall not be installed in concrete floors.
- 3. The following systems shall be considered as circuits 100 volts and less, all other circuits shall be considered to be over 100 volts (power circuits) unless specifically noted otherwise: Fire alarm, energy management control, telephone, public address, data, computer, television, intercom, intrusion alarm and nurse call.
- 4. Conduits shall be provided complete with conduit bends, conduit fittings, outlet boxes, pullboxes, junction boxes, conduit anchors/supports, grounding/bonding for a complete, and operating conductor/wire raceway system.
- 5. Metal and nonmetal conduits shall be provided mechanically continuous between termination connection points. Metal conduit shall be provided electrically continuous between termination connection points.
- 6. Individual conduit paths and home runs shown on the Drawings shall be maintained as separate individual conduits for each homerun and path.
- 7. Conduits, conduit fittings and installation work occurring in classified hazardous materials locations shall comply with applicable Code Class 1 Division 1 Requirements, unless specifically noted otherwise.
- 8. Transitions between conduits constructed of different materials and occurring in above grade locations shall be allowed only at outlet boxes, junction boxes, pullboxes and equipment enclosures unless specifically indicated otherwise. Provide outlet boxes and junction boxes.
- 9. Metal conduit terminating to nonmetal enclosures; terminating into metal enclosures with "concentric.ring" knockouts; terminating into metal enclosures with knockout reducing washers, including but not limited to equipment housings, outlet boxes, junction boxes, pullboxes, cable trenches, manholes, shall be provided with a ground/bonding lug integrated with the conduit termination conductor fitting construction, by the Fitting Manufacturer. The lug shall provide for connection of a grounding/bonding conductor (insulated or uninsulated). The grounding lug shall be located on the fitting, inside the termination enclosure.
- 10. The type of conduit, type of conduit fittings, and type of conduit supports and method of conduit installation shall be suitable for the conditions of use and conditions of location of installation based on the Manufacturer's recommendations; based on the applicable Codes and based on the Requirements of the two.
- B. RMC Installation Locations. RGS, IMC conduits and RGS, IMC fittings shall be installed in the following locations:
 - 1. Embedded in floors, walls, ceilings, roofs, foundations, and footings constructed with concrete.
 - 2. Embedded in walls and foundations constructed with brick and masonry.

- 3. Interior of buildings, within 9-feet of finish floor lines for exposed conduit locations.
- 4. Exterior of building for exposed conduit locations.
- 5. Damp or wet locations, exposed or concealed locations.
- 6. Exposed on roofs.
- 7. RMC conduit and RMC fittings may be installed in any location where EMT and FMC conduit is permitted to be installed.
- C. EMT Installation Locations. EMT conduit and EMT fittings may be installed in the following locations, for circuit conductors operating below 600 volts to ground; locations containing only "non-hazardous materials"; only dry locations:
 - Concealed in hollow non masonry/non-concrete, metal stud frame and wood stud frame walls and floors.
 - 2. Concealed above ceilings.
 - 3. Exposed inside interior enclosed crawl spaces.
 - 4. Exposed interior locations placed 9-feet or higher above finished floors (except as described in paragraph below at lower heights).
 - 5. Exposed on walls and ceilings (any height) in the following dedicated function areas, interior enclosed room locations:
 - a. Indoor enclosed electrical equipment rooms and closets.
 - b. Indoor enclosed data and telecommunication terminal rooms and closets.
 - c. Indoor enclosed HVAC equipment rooms and closets.
 - 6. Any location where FMC is described to be installed, except as the final connection to rotating or vibrating equipment.
- D. FMC Installation Locations. FMC conduit and FMC fittings may be installed in the following locations for circuit conductors operating below 600 volts to ground; locations containing only "non-hazardous materials"; only dry, interior locations:
 - Concealed in hollow non-masonry metal stud frame and wood stud frame fully enclosed walls.
 - 2. Concealed above fully enclosed ceiling spaces.
 - 3. FMC conduit shall be installed in continuous lengths between termination points. FMC shall not be "spliced" or coupled directly to FMC or any other conduit type under any circumstance.
 - 4. The maximum continuous length of FMC that shall be installed between termination end points is 15-feet. Circuits requiring continuous conduit lengths exceeding 15 feet between termination end points shall be installed using either RMC or EMT conduits. FMC lengths shorter than 16-inches are prohibited.
 - 5. The minimum size FMC conduit shall be as shown on the Drawings but not be less than the following:
 - a. FMC lengths of 6-feet or less, minimum FMC conduit size shall be 0.50-inch.
 - b. FMC lengths exceeding 6-feet, minimum FMC conduit size shall be 1.0-inch.
- E. LTFMC Installation Locations. LTFMC conduit and LTFMC fittings shall be installed in the following locations for circuit conductors operating below 600 volts to ground; locations containing only "non-hazardous materials":
 - 1. Final electrical connection to vibrating or rotating equipment; control and monitoring devices mounted on vibrating and rotating equipment including the following. Minimum conduit length shall not be less than 24-inches:

- a. Motor, engines, boilers, solenoids, and valves.
- b. Fixed mounted "shop" (manufacturing) production equipment.
- c. Fixed mounted food preparation equipment and "kitchen" equipment.
- All locations where exposed flexible conduit connections are required, both indoor and outdoor.
- 3. Final connection to indoors electrical transformers. Minimum conduit length shall not be less than 24-inches; maximum conduit length shall not exceed 72-inches.
- 4. Do not install LTFMC located in environmental air plenums.

F. Conduit Installation

- 1. Conduit Supports
 - a. Securely and rigidly support all raceways/conduits from the building structure. Raceways/conduits shall be supported independent of all piping, air ducts, equipment ceiling hanger wires, and suspended ceiling grid systems. Secure conduit to structural element by means of UL listed and approved hangers, fasteners, "C" channels and pipe clamps.
 - b. Provide conduit supports spaced along the length of the conduit as follows:
 - 1) RMC and EMT conduit, maximum not to exceed 96-inches on center; within 24-inches of each conduit bend and conduit termination location.
 - 2) FMC and LTFMC conduit, maximum not to exceed 24-inches on center; within 6-inches of each conduit bend and conduit termination location.
 - c. Suspended conduit methods:
 - 1) Individual, suspended raceways/conduits separated by more than 12-inches from any other conduit and suspended from ceilings and roofs shall be supported as follows:
 - Conduits smaller than 1.5-inch by means of hanger rods or hanger wires.
 - b) Conduits 1.5-inch and larger by means of hanger rods.
 - c) The conduit shall attach to the hangers with pipe clamps.
 - 2) Suspended raceways/conduits positioned within 24-inches of any other conduit shall be grouped and supported by hanger rods using trapeze type conduit support channels ("C" channels). Conduits shall individually attach to common channels side-by-side, with pipe clamps.
 - d. Non-suspended conduit methods:
 - Individual raceway/conduits placed against wall/ceiling/floors, placed inside hollow wall/ceiling construction or structure framing (i.e., "drywall" or plaster hollow wall construction), shall be secured by means of individual pipe clamps and fasteners attached to the framing studs or other structural members and the conduit/raceway.
 - 2) Provide common "C" channel supports for all multiple raceway/ conduits placed against vertical or horizontal surfaces and positioned within 24-inches of other raceways/conduits. Attach channels to the framing studs or other structural members. Attach the conduits/ raceway individually to common channels, side-by-side, with pipe clamps.
 - 3) The use of toggle bolts is prohibited.

3.03 WIRE AND CABLE

- A. Branch circuit and fixture joints for #10AWG and smaller wire shall be made with UL-approved connectors listed for 600 volts, approved for use with copper and/or aluminum wire. Connector to consist of a cone-shaped, expandable coil spring insert, insulated with a nylon shell and two wings placed opposite each other to serve as a built-in wrench or shall be molded one-piece as manufactured by 3M-"Scotchlok".
- B. Branch circuit joints of #8AWG and larger shall be made with screw pressure connectors made of high strength structural aluminum alloy and UL-approved for use with both copper and/or aluminum wire as manufactured by Thomas & Betts. Joints shall be insulated with plastic splicing tape, tapered half-lapped and at least the thickness equivalent to 1.5-times the conductor insulation. Tapes shall be fresh and of quality equal to Scotch.
- C. Use UL listed pulling compound for installation of conductors in conduits.
- D. Correspond each circuit to the branch number indicated on the panel schedule shown on the Drawings except where departures are approved by the Owner's Representative.
- E. All wiring, including low voltage, shall be installed in conduit.
- F. Control wiring to conform to the wiring diagrams shown on the Mechanical Drawings and the Manufacturer's Wiring Diagrams.
- G. Neatly group and lace all wiring in panelboards, motor control centers and terminal cabinets with plastic ties at 3-inches on centers. Tag all spare conductors.

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SECTION 26 2416

PANELBOARDS AND TERMINAL CABINETS

PART 1 - GENERAL

1.01 SCOPE

- A. Work Included: All labor, materials, appliances, tools, equipment necessary for and incidental to performing all operations in connection with furnishing, delivery and installation of the work of this Section, complete, as shown on the Drawings and/or specified herein. Work includes, but is not necessarily limited to the following:
 - 1. Examine all other Specification Sections and Drawings for related work required to be included as work under Division 26.
 - 2. General Provisions and Requirements for electrical work.

1.02 SUBMITTALS (ADDITIONAL REQUIREMENTS)

- A. Provide Manufacturers catalog data for panels, cabinets and circuit breakers.
- B. Provide Shop Drawing showing panel circuit arrangements, size, voltage, ampacity, overcurrent protective devices, etc.
- C. Provide Nameplate Engraving Schedule.
- D. Short Circuit, Coordination and Arc-Flash
 - 1. Perform and submit engineered settings for each equipment location, fuse and adjustable circuit breaker device, showing the correct time and settings to provide the selective coordination within the limits of the specified equipment, per the latest applicable Standards of IEEE and ANSI. Provide electrical system short circuit fault analysis, both 3-phase line-to-line and 1-phase line-to-ground calculations as part of the coordination analysis recommendations. Provide Electric Arc-Flash calculations as part of the coordination analysis recommendations.
 - 2. The information shall be submitted in both tabular form and on time current log-log graph paper, with an engineering narrative. Written narrative describing data, assumptions, analysis of results and prioritized recommendations, six copies.
 - 3. The goal is to minimize an unexpected but necessary electrical system outage and personnel exposure to the smallest extent possible within the fault occurrence location, using the specified Contract equipment. Shall comply with, but not limited to:
 - a. IEEE-242, Recommended Practices for Protection and Coordination of Industrial and Commercial Distribution.
 - b. IEEE-399, Recommended Practice for Industrial and Commercial Power System Analysis.
 - c. IEEE-1584, Guide to Performing Arc-Flash Hazard Study.
 - d. CEC/NEC
 - 4. Electrical equipment including switchgear, switchboards, electrical panels, and control panels, transformers, disconnects, etc., shall each be labeled by the Manufacturer with "Electrical-Arc-Flash" warning signs. The signs shall explain a hazard to Personnel may exist if the equipment is worked on while energized or operated by personnel, to wear the correct protective equipment/clothing (PPE) when working "Live", or operating "Live" equipment and circuits.

PART 2 - PRODUCTS

2.01 PANELBOARDS AND DISTRIBUTION PANELS

- A. Shall be flush or surface mounting as indicated with group -mount circuit protection devices as shown on panel schedule, hinged lockable doors, index cardholders and proper bussing.
 - 1. Panelboards shall comply with the latest versions:
 - a. NEMA PB1.
 - b. UL 50 and 67.
 - c. CEC/NEC.
 - d. ASTM-B187.
 - 2. Where indicated on the Drawings shall be furnished with subfeed breakers and/or additional conductor lugs, split bussing, contactors, time switches, relays, etc., as required.
 - a. Branch circuit panels up through forty-two circuits shall be single section, to accommodate all of the circuits and components.
 - b. Distribution panels shall be single section or multi-section, to accommodate all of the circuits and components.
 - 3. Panels shall be "Service-Entrance" equipment rated when the panel main incoming supply feeder originates from one of the following:
 - Originates outdoors exterior of the building in which the respective panel is located.
 - b. Originates from an electrical supply source not located in the same building as the respective panel.
- B. Housing and Painting, Panels and Terminal Cabinets
 - 1. Shall be finished with one coat of rust inhibitor zinc chromate and coat of primer sealer after a thorough cleaning.
 - 2. Finish color paint as selected by Owner's Representative where exposed to public view (e.g., corridors, covered passages, offices, etc.). Prime coated panelboard shall be painted to match surroundings after installation in public areas.
 - Manufacturer's standard color in electrical rooms/closets, janitors, HVAC and storage rooms.
 - 4. Shall be fabricated of sheet steel of the following minimum gauges.
 - a. Full height hinged, locking door. Trim #12 gauge steel; enclosure Code gauge steel.
 - b. Panels installed in indoor dedicated electrical equipment rooms and dedicated electrical equipment closets, omit full height hinged locking panel door. Dead front cover behind omitted panel door shall remain.
 - 5. NEMA-1 Metal Housing, for indoor locations.
 - 6. NEMA-3R Metal Housing, tamper resistant, for outdoor locations.
 - 7. Furnish all panels and terminal cabinets with the Manufacturers flush locks and keys except where indicated otherwise herein. Keys and locks shall be interchangeable for all panels. Provide two latches and two locks for door heights exceeding 36-inches.
 - 8. Fasten the trim to panel and terminal cabinets by means of concealed, bolted or screwed fasteners accessible only when the door is open.

C. Panels 208/120 volt, three phase, 4-wire, S/N or 120/240 volt, single phase, 3-wire, S/N.

Branch circuit panel as manufactured by:

- 1. Cutler Hammer "Pow-R-Line 1 or 2"Series
- 2. General Electric "A" Series
- 3. Square D "NF/NQ" Series
- 4. Siemens "P1/P2" Series
- D. Top and bottom gutter space shall not be less than 6-inches high. Provide 6-inches additional gutter space in all panels where double lugs are required or where cable ampere size exceeds bus ampere size.
- E. Panel dimensions.
 - 1. Panels with buss sizes 50 amp thru 400 amp
 - a. Shall be 20-inches wide. Surface or flush mounting as indicated.
 - b. Recess mounted type shall have a 20-inches wide (maximum) recess metal enclosure with overlapping edge trim plate cover extending 1-inch on all sides of enclosure.
 - c. Depth shall be 5.75-inches nominal. Height of panel as required for devices.
- F. Panels shall have a circuit index cardholder removable type, with clear plastic cover. Index card shall have circuit numbers imprinted to match circuit breaker numbers.
 - 1. The panel identification nameplate shall describe the respective panel name and voltage, corresponding to the Contract Documents.
 - 2. The electrical power source, name and location of each panel supply-feeder and supply equipment name shall also be identified and described on the respective panel nameplate.

2.02 SHORT CIRCUIT RATING

A. Circuit protective devices and bussing as indicated on the Drawings. All devices and bussing shall have a short circuit fault withstand and interrupting capacity not less than the maximum available fault current at the panel and as indicated on the Drawings, plus a 25% additional capacity (safety margin). However, in no case shall the short circuit fault interrupting and withstand capacity be less than the following symmetrical short circuit.

	C/B and/or Bus Rating	Circuit Voltage	Short Circuit Amp.
1.	400A and less	240V and below	10,000A
2.	400A and less	over 240V and below 600V	14,000A

2.03 PANEL CIRCUIT BREAKERS, CIRCUIT PROTECTION DEVICES

- A. Circuit Breakers General for Distribution Panels and Panelboards
 - 1. NEMA-AB1 and AB3, comply with latest revision.
 - 2. UL-1087, UL-489 and IEC-60.947.2 rated devices, comply with latest revision.
 - 3. 5Hz AC closing and 3Hz AC trip and clear.
 - 4. Main circuit breakers for distribution panels exceeding 400 amp and larger;
 - a. Shall be Insulated Case Circuit Breaker type ICCB.
 - 5. Main circuit breakers for branch circuit panelboards 400 amp buss and smaller;
 - Shall be Current Limiting Circuit Breaker type-CLCB for non-emergency panelboards.
 - b. Shall be Molded Case Circuit Breaker type-MCCB for emergency panelboards.

- 6. Branch circuit breakers and feeder circuit breakers smaller than 100-amp trip shall be Molded Case Circuit Breakers type-MCCB and/or Current Limiting Circuit Breakers type-CLCB.
- 7. All circuit breakers 100 amp and larger trip shall employ sensors and solid state digital electronic automatic trip system. Short-time and long-time Time/current curve shaping field adjustable functions and adjustable instantaneous trip. Typical for Molded Case Circuit Breaker type-MCCB, Insulated Case Circuit Breaker type-ICCB and Current Limiting Circuit Breaker type-CLCB.

B. Manufacturer

- 1. Circuit breakers as manufactured by the following companies only are acceptable:
 - Cutler Hammer
 - b. General Electric Co.
 - c. Square D Co.
 - d. Siemens

C. Configuration

- 1. Circuit breakers shall be arranged in the panels so that the breakers of the proper trip settings and numbers correspond to the numbering in the panel schedules on the Drawings.
- Circuit numbers of breakers shall be black-on-white micarta tabs or other previously approved method. Circuit number tabs, which can readily be changed from front of panel, will not be accepted. Circuit number tabs shall not be attached to or be a part of the breaker.
- 3. Panelboard circuit protection devices shall be bolt on type for connection to panel bus. Removable and installable without disturbing adjacent devices.
- 4. Provide conductor wire terminations (lugs) on each circuit protection device for incoming main feeder, branch circuits and outgoing feeder circuits. Dual rated copper/aluminum and compatible with the respective conductor size, type and quantity.
- 5. Where 2-pole or 3-pole breakers occur in the panels, they shall be common trip units. Single pole breakers with tie-bar between handles will not be accepted.
- 6. Branch circuit panels shall be field convertible for bottom entry main incoming feeder or top entry main incoming feeder.
- 7. Each panel section, the feeder and branch circuit protection devices (3-phase and/or 1-phase) shall be "twin-mount", side-by-side double row construction for the following circuit sizes:
 - a. 480/277 volt, 60-amp circuit size and smaller.
 - b. 240 volt 208/120 volt, 100 amp circuit size and smaller.

2.04 PANEL BUSSING

A. Bus Material

- 1. Bussing shall be rectangular cross section tin-plated copper. As directed by Owner, aluminum panel busing shall not be permitted.
- 2. Bussing shall be non-tapped, full length of the enclosure.

B. Ground Bus

1. Each panel shall be equipped with a ground bus secured to the interior of the enclosure. The bus shall have a separate lug for each ground conductor. No more than one conductor shall be installed per lug.

2. Provide additional isolated ground bus in each panel with connecting isolated ground feeders and/or connecting isolated ground branch circuits.

C. Provisions

1. Provide space and all hardware and bus mounting attachments for future devices as indicated on the Drawings.

D. Neutral Bus

1. The ampere rating of the neutral bus of panels and distribution panels shall be a minimum of 100% greater ampere capacity than the ampere rating of the corresponding phase bus, where the panel is indicated to be provided with an "oversize-neutral" or "200%" neutral on the Drawings.

PART 3 - EXECUTION

3.01 MOUNTING

- A. Flush mounted panelboards and terminal cabinets shall be securely fastened to at least two studs or structural members. Trim shall be flush with finished surface.
 - 1. Panels and cabinets installed flush (recess or semi-recess) into fire rated or smoke rated walls. The wall recess shall be fully wrapped inside the recess with fire/smoke rated materials. The wrap-materials shall provide the same fire and/or smoke protection rating as the respective wall.
- B. Panelboards and terminal cabinets shall be installed to insure the top circuit protective device (including top compartment control devices) are not more than 6-feet-6-inches above finish floor in front of the panel and the bottom device is a minimum of 12-inches above the floor.

 Manufacturer shall specifically indicate on Shop Drawing submittals each panel where these conditions cannot be met.

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