



Compton Community College District

RFQ CCC-059 Cafeteria and Music Building HVAC and Fire Alarm

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COMPTON COMMUNITY COLLEGE DISTRICT
BID AND CONTRACT DOCUMENTS
CAFETERIA AND MUSIC BLDG HVAC AND FIRE ALARM
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NOTICE TO CONTRACTORS CALLING FOR BIDS

DISTRICT	COMPTON COMMUNITY COLLEGE DISTRICT
PROJECT DESCRIPTION	RFQ CCC 059 Cafeteria and Music Building HVAC and Fire Alarm
MANDATORY JOB WALK	Friday, November 8, 2019 at 2PM Meet at the flagpole by the Administration Building
LATEST TIME/DATE FOR SUBMISSION OF BID PROPOSALS	2:00 PM Wednesday, November 21, 2018
LOCATION FOR SUBMISSION OF BID PROPOSALS	COMPTON COMMUNITY COLLEGE DISTRICT 1111 East Artesia Boulevard Compton, CA 90221 Building: <u>C-Row, Business Services Office</u> Office/Room: <u>C-34</u>
LOCATION FOR OBTAINING BID AND CONTRACT DOCUMENTS	The District's Website http://www.compton.edu/district/administration/businessadmin/Bid_Proposal_Requests.aspx

NOTICE IS HEREBY GIVEN that the above-named California Community College District, through its Board of Trustees ("the District") will accept Bid Proposals for the Contract for **RFQ CCC-059 Cafeteria and Music Building HVAC and Fire Alarm** ("the Work").

1. Submittal of Bid Proposals. All Bid Proposals shall be submitted on forms furnished by the District at or prior to the date and time set forth above.
2. Bid and Contract Documents. The Bid and Contract Documents can be obtained at:
http://www.compton.edu/district/administration/businessadmin/Bid_Proposal_Requests.aspx

Bid and Contract Documents will be available after Tuesday, November 5, 2019.
3. While the Bid and Contract Documents may be available through other Planrooms or sites, the District does not guarantee the authenticity or completeness of the Bid and Contract Documents obtained from such other Planrooms or sites. Bidders shall be solely responsible for reviewing the District's website and downloading any and all Project Documents and Addenda prior to bidding.
4. Documents Accompanying Bid Proposal. Each Bid Proposal shall be accompanied by: (i) the required Bid Security; (ii) Subcontractors List; (iii) Non-Collusion Affidavit; (iv) Statement of Bidder's Qualifications; and (v) Verification of Contractor and Subcontractor DIR Registration.
5. Prevailing Wage Rates. Pursuant to California Labor Code §1773, the Director of the Department of Industrial Relations of the State of California has determined the generally prevailing rates of wages in the locality in which the Work is to be performed. Copies of these determinations, entitled "PREVAILING WAGE SCALE" are available for review on the internet at http://www.dir.ca.gov/dlsr/statistics_research.html. The Contractor awarded the Contract for the Work shall post a copy of all applicable prevailing wage rates for the Work at conspicuous locations at the Site of the Work. The Contractor and all Subcontractors performing any portion of the Work shall pay not less than the applicable prevailing wage rate for the classification of labor provide by

their respective workers in prosecution and execution of the Work. During the Work and pursuant to Labor Code §1771.4(a)(4), the Department of Industrial Relations shall monitor compliance with prevailing wage rate requirements and enforce the Contractor's prevailing wage rate obligations.

6. Bidder and Subcontractors DIR Registered Contractor Status. Pursuant to and in accordance with Labor Code §1771.1, each Bidder must be a DIR Registered Contractor when submitting a Bid Proposal. The Bid Proposal of a Bidder who is not a DIR Registered Contractor when the Bid Proposal is submitted will be rejected for non-responsiveness. All Subcontractors identified in a Bidder's Subcontractors' List must be DIR Registered contractors at the time the Bid Proposal is submitted.
1. Contractors' License Classification. The District requires that Bidders possess the following classification(s) of California Contractors License at the time that the Contract for the Work is awarded - B - General Building. The Bid Proposal of a Bidder who does not possess a valid and in good standing Contractors' License in the classification(s) set forth above will be rejected for non-responsiveness. Any Bidder not duly and properly licensed is subject to all penalties imposed by law. No payment shall be made for the Work unless and until the Registrar of Contractors verifies to the District that the Bidder awarded the Contract is properly and duly licensed for the Work.
7. Contract Time. Substantial Completion of the Work shall be achieved as set forth in the Contract Documents; Liquidated Damages will be assessed for delayed Substantial Completion.
8. Bid Security. Each Bid Proposal shall be accompanied by Bid Security in an amount not less than ten percent (10%) of the maximum amount of the Bid Proposal, inclusive of any additive Alternate Bid Item(s). A Bid Proposal not accompanied by the required Bid Security is non-responsive and will be rejected by the District.
9. Alternate Bid Items. If the bidding include(s) Alternate Bid Items for which each Bidder must propose pricing for each Alternate Bid Item, the District's selection of Alternate Bid Items for determination of the lowest bid shall be as set forth in the Instructions to Bidders.
10. No Withdrawal of Bid Proposals. Bid Proposals shall not be withdrawn by any Bidder for sixty (60) days after the opening of Bid Proposals. During this time, all Bidders shall guarantee prices quoted in their respective Bid Proposals.
11. Job-Walk. The District will conduct a Mandatory Job Walk on Friday, November 08, 2019 beginning at 2:00 PM Bidders are to meet at the flag pole just south of the Administration Building at Compton CCD Campus for the Job Walk. Parking permit is \$3.00 and permits are available at parking kiosks in the parking lots. Please plan accordingly. If the Job Walk is mandatory, the Bid Proposal submitted by a Bidder whose representative(s) did not attend the entirety of the Mandatory Job Walk will be rejected by the District as being non-responsive.
12. Pre-Bid Inquiries. Bidders may submit pre-bid inquiries or clarification requests no later than 2:00 PM on Wednesday, November 13, 2019. Pre-bid inquiries or clarification requests shall be submitted only to Carol Kober at: ckober@pcm3.com. **Do not submit pre-bid inquiries direct to the District.**
13. Copies of Agreement and Bonds. The number of required executed copies of the Agreement are THREE (3) The number of required executed copies of the Performance Bond and the Labor & Materials Payment are THREE (3).

14. Award of Contract; Waiver of Irregularities. The Contract, if awarded, will be by action of the District's Board of Trustees to the responsible Bidder submitting the lowest priced responsive Bid Proposal. If Alternate Bid Items are included in the bidding, the lowest priced Bid Proposal will be determined on the basis of the Base Bid Proposal or on the Base Bid Proposal and the combination of Alternate Bid Items selected in accordance with the above. The District reserves the right to reject any or all Bid Proposals or to waive any irregularities or informalities in any Bid Proposal or in the bidding.

Advertisement publication dates:

Thursday, October 31, 2019

Thursday, November 07, 2019

[End of Section]

INSTRUCTIONS FOR BIDDERS

1. **Bid Proposal.** Bid Proposals not conforming to these Instructions for Bidders and the Notice to Contractors Calling for Bids (“Call for Bids”) may be deemed non-responsive and rejected.
 - 1.1. **Completion of Bid Proposal.** Where required, numbers shall be stated by words and figures; words; conflicts between numbers stated in words and in figures are governed by the words. Bid Proposals are non-responsive and will be rejected if: (i) partially completed; (ii) submitted on forms other than those required by the District; (iii) erasures, interlineations or other corrections are not suitably authenticated by the initials of the person(s) signing the Bid Proposal adjacent to such erasure, interlineations or correction; (iv) a Bid Proposal, or portions thereof, is/are determined by the District to be illegible, ambiguous or inconsistent.
 - 1.2. **Submittal.** Bid Proposals shall be submitted in sealed envelopes bearing on the outside the Bidder’s name and address along with an identification of the Work for which the Bid Proposal is submitted. A Bid Proposal is deemed submitted only if the outer envelope containing the Bid Proposal is stamped by the District’s date/time stamp machine at the location where Bid Proposals are to be submitted.
 - 1.3. **Withdrawal; Modification.** No oral modification or withdrawal of a submitted Bid Proposal will be considered; a written request to modify or withdraw a submitted Bid Proposal will be considered only if the written request is received by the District before the public opening of Bid Proposals.
2. **Bid Security.** Each Bid Proposal shall be accompanied by Bid Security in the form of: (i) cash; (ii) certified or cashier’s check payable to the District; or (iii) a Bid Bond, in the form and content incorporated into the Contract Documents (the “Bid Security”) in an amount not less than ten percent (10%) of the maximum amount of the Bid Proposal. Bid Bonds must conform to the following: (i) the Bid Bond is in the form and content included herein; and (ii) the Surety is an Admitted Surety Insurer under Code of Civil Procedure §995.120; (iii) authorized employees or representatives of the Bidder and Surety execute the Bid Bond and their signatures are duly notarized; (iv) the Surety’s representative’s authority to bind the Surety is attached to the Bid Bond and duly attested to by the Surety; and (v) all other information required by the form of the Bid Bond is completely and accurately provided.
3. **Erasures; Inconsistent or Illegible Bid Proposals.** Bid Proposals must not contain any erasures, interlineations or other corrections unless the same are suitably authenticated by affixing in the margin immediately opposite such erasure, interlineations or correction the initials of the person(s) signing the Bid Proposal. If a Bid Proposal, or portions thereof, are determined by the District to be illegible, ambiguous or inconsistent, whether by virtue of any erasures, interlineations, corrections or otherwise, the District may reject such a Bid Proposal as being non-responsive.
4. **Examination of Site and Contract Documents.** Each Bidder shall, at its sole cost and expense, inspect the Site and to become fully acquainted with the Contract Documents prior to bid and conditions affecting the Work. The submission of a Bid Proposal is prima facie evidence of the Bidder’s full compliance with the foregoing requirements.
5. **Agreement and Bonds Upon Award of Contract.** If the Bidder submitting this Bid Proposal is awarded the Contract, the undersigned will execute and deliver to the District the Contract in the form attached hereto within five (5) calendar days after notification of award of the Contract. Concurrently with delivery of the executed Agreement to the District, the Bidder awarded the Contract shall deliver to the District: (a) Certificates of Insurance evidencing all insurance coverage required under the Contract Documents; (b) the Performance Bond; (c) the Labor and

Material Payment Bond; (d) the Certificate of Workers' Compensation Insurance; (e) the Drug-Free Workplace Certificate; (f) Fingerprint Certificates; and (g) Roof Project Financial Disclosure Certificates, if required. Failure of the Bidder awarded the Contract to strictly comply with the preceding may result in the District's rescission of the award of the Contract and/or forfeiture of the Bidder's Bid Security. In such event, the District may, in its sole and exclusive discretion elect to award the Contract to the responsible Bidder submitting the next lowest Bid Proposal, or to reject all Bid Proposals. The required number of executed copies of the Agreement and the form and content of the Performance Bond and the Payment Bond and other documents or instruments required at the time of execution of the Agreement are specified in the Contract Documents.

6. Pre-Bid Questions; Contract Document Interpretation and Modifications. Any Bidder in doubt as to the true meaning of any part of the Contract Documents; finds discrepancies, errors or omissions therein; or finds variances in any of the Contract Documents with the Laws ("Pre-Bid Questions"), shall submit a request for an clarification, interpretation or correction thereof using the form of Pre-Bid Inquiry included with the Contract Documents. Bidders are solely and exclusively responsible for submitting Pre-Bid Questions no later than the time/date designated in the Call for Bids. Responses to Pre-Bid Questions will be by written addendum issued by, or on behalf of, the District. A copy of any such addendum will be mailed or otherwise delivered to each Bidder receiving a set of the Contract Documents. Failure to request interpretation or clarification of any portion of the Contract Documents pursuant to the foregoing is a waiver of any discrepancy, defect or conflict therein.
7. Interpretation of Drawings, Specifications or Contract Documents. Interpretations, modifications or corrections of the Contract Documents will be by written addendum issued by or on behalf of the District. No person is authorized to render an oral interpretation or correction of any portion of the Contract Documents to any Bidder, and no Bidder is authorized to rely on any such oral interpretation or correction.
8. Bidder's Assumptions. The District is not responsible for any assumptions made or used by the Bidder in calculating its Bid Proposal Amount including, without limitation, assumptions regarding costs of labor, materials, equipment or substitutions/alternatives for any material, equipment, product, item or system incorporated into or forming a part of the Work which have not been previously expressly approved and accepted by the District. The successful Bidder, upon award of the Contract by the District, if any, will be required to complete the Work for the amount bid in the Bid Proposal within the Contract Time and in accordance with the Contract Documents.
9. District's Right to Modify Contract Documents. Before the public opening and reading of Bid Proposals, the District may modify the Work, the Contract Documents, or portion(s) thereof by the issuance of written addenda disseminated to all Bidders who have obtained a copy of the Specifications, Drawings and Contract Documents pursuant to the Call for Bids. Failure of a Bidder to acknowledge addenda in its Bid Proposal will render the Bid Proposal non-responsive and rejected.
10. Bidders Interested in More Than One Bid Proposal; Non-Collusion Affidavit. No person, firm, corporation or other entity shall submit or be interested in more than one Bid Proposal for the same Work; provided, however, that a person, firm or corporation that has submitted a sub-proposal to a Bidder or who has quoted prices for materials to a Bidder is not thereby disqualified from submitting a sub-proposal, quoting prices to other Bidders or submitting a Bid Proposal for the proposed Work to the District. Failure of a Bidder to submit a completed and executed Non-Collusion Affidavit with its Bid Proposal will render the Bid Proposal non-responsive.

11. Award of Contract. The District reserves the right to reject any and all Bid Proposals or to waive any irregularities or informalities in any Bid Proposal or in the bidding. Award of the Contract, if made by the District through action of its Board of Trustees, will be to the responsible Bidder submitting the lowest priced responsive Bid Proposal on the basis of the Base Bid.
- 11.1. Responsive Bid Proposal. A responsive Bid Proposal shall mean a Bid Proposal which conforms, in all material respects, to the Bid and Contract Documents.
- 11.2. Responsible Bidder. A responsible Bidder is a Bidder who has the capability in all respects, to perform fully the requirements of the Contract Documents and the moral and business integrity and reliability which will assure good faith performance. In determining responsibility, the following criteria will be considered: (i) the ability, capacity and skill of the Bidder to perform the Work of the Contract Documents; (ii) whether the Bidder can perform the Work promptly and within the time specified, without delay or interference; (iii) the character, integrity, reputation, judgment, experience and efficiency of the Bidder; (iv) the quality of performance of the Bidder on previous contracts, by way of example only, the following information will be considered: (a) the administrative, consultant or other cost overruns incurred by the District on previous contracts with the Bidder; (b) the Bidder's compliance record with contract general conditions on other projects; (c) the submittal by the Bidder of excessive and/or unsubstantiated extra cost proposals and claims on other projects; (d) the Bidder's record for completion of work within the contract time and the Bidder's compliance with the scheduling and coordination requirements on other projects; (e) the Bidder's demonstrated cooperation with the District and other contractors on previous contracts; (f) whether the work performed and materials furnished on previous contracts was in accordance with the Contract Documents; (v) the previous and existing compliance by the Bidder with laws and ordinances relating to contracts; (vi) the sufficiency of the financial resources and ability of the Bidder to perform the work of the Contract Documents; (vii) the quality, availability and adaptability of the goods or services to the particular use required; (viii) the ability of the Bidder to provide future maintenance and service for the warranty period of the Contract; (ix) whether the Bidder is in arrears on debt or contract or is a defaulter on any surety bond; (x) such other information as may be secured by the District having a bearing on the decision to award the Contract, to include without limitation the ability, experience and commitment of the Bidder to properly and reasonably plan, schedule, coordinate and execute the Work of the Contract Documents and whether the Bidder has ever been debarred from bidding or found ineligible for bidding on any other projects. The ability of a Bidder to provide the required bonds will not of itself demonstrate responsibility of the Bidder.
12. Subcontractors. Each Bidder shall submit a list of its Subcontractors for the Work as required by California Public Contract Code §§4100 et seq. on the form furnished. If a Bidder requires bonds of its Subcontractor(s), such requirements shall be specified in the Bidder's written or published request for sub-bids.
13. Workers' Compensation Insurance. Pursuant to California Labor Code §3700, the successful Bidder shall secure Workers' Compensation Insurance for its employees engaged in the Work of the Contract. The successful Bidder shall sign and deliver to the District the Certificate of Workers Compensation Insurance incorporated into the Contract Documents.
14. Bid Security Return. The Bid Security of the Bidders submitting the three (3) lowest priced responsive Bid Proposals will be held by the District for ten (10) days after the period for which Bid Proposals must be held open, as set forth the Call for Bids, or until posting by the successful Bidder(s) of the bonds, certificates of insurance required and return of executed copies of the

Agreement, whichever first occurs, at which time the Bid Security of such other Bidders will be returned to them.

15. Forfeiture of Bid Security. If the Bidder awarded the Contract fails or refuses to execute the Agreement within five (5) calendar days from the date of receiving notification that it is the Bidder to whom the Contract has been awarded, the District may declare the Bidder's Bid Security forfeited as damages caused by the failure of the Bidder to enter into the Contract and may thereupon award the Contract for the Work to the responsible Bidder submitting the next lowest priced Bid Proposal or may call for new bids, in its sole and exclusive discretion.
16. Contractor's License. No Bid Proposal will be considered from a Bidder who, at the time Bid Proposals are opened, is not licensed to perform the Work of the Contract Documents, in accordance with the Contractors' License Law, California Business & Professions Code §§7000 et seq. This requirement will not be waived by the District or its Board of Trustees.
17. Bidder's Qualifications. Each Bidder shall submit with its Bid Proposal the form of Statement of Qualifications, which is included within the Contract Documents. All information required by Statement of Qualifications shall be completely and fully provided. Any Bid Proposal not accompanied by the Statement of Qualifications completed with all information required and bearing the signature of the Bidder's duly authorized representative under penalty of perjury will render the Bid Proposal non-responsive and rejected. The Bid Proposal of a Bidder whose response to any question in the Essential Requirements section of the Statement of Qualifications resulted in a "Not Qualified" status will be rejected for non-responsiveness. If the District determines that any information provided by a Bidder in the Statement of Qualifications is false or misleading, or is incomplete so as to be false or misleading, the District may reject the Bid Proposal submitted by such Bidder as being non-responsive.
18. Job-Walk. The District will conduct a Job-Walk at the time(s) and place(s) designated in the Call for Bids. Attendance by representatives of the Bidder's Subcontractors at a Mandatory Job Walk without attendance by a representative of the Bidder is not sufficient to meet the Bidder's obligations hereunder and will render the Bid Proposal of such Bidder to be non-responsive. Notwithstanding the non-compulsory attendance of Bidders at a Non-Mandatory Job Walk, all Bidders are encouraged to attend Non-Mandatory Job Walks.
19. Public Records. Bid Proposals and other documents responding to the Call for Bids become the exclusive property of the District upon submittal to the District. At such time as the District issues the Notice of Intent to award the Contract pursuant to these Instructions for Bidders, all Bid Proposals and other documents submitted in response to the Call for Bids become a matter of public record and shall be thereupon be considered public records, except for information contained in such Bid Proposals deemed to be Trade Secrets (as defined in California Civil Code §3426.1) confidential or proprietary. The District is not liable or responsible for the disclosure of such records, including those exempt from disclosure if disclosure is deemed required by law, by an order of Court, or which occurs through inadvertence, mistake or negligence on the part of the District or its officers, employees or agents. When Bid Proposals are deemed a matter of public record, pursuant to the above, any Bidder or other party shall be afforded access for inspection and/or copying of such Bid Proposals pursuant to the California Access to Public Records Act, California Government Code §§6250, et. seq. If the District is required to defend or otherwise respond to any action or proceeding wherein request is made for the disclosure of the contents of any portion of a Bid Proposal deemed exempt from disclosure hereunder, the Bidder submitting the materials sought by such action or proceeding agrees to defend, indemnify and hold harmless the District in any action or proceeding from and against any liability, including without limitation

attorneys' fees arising there from. The party submitting materials sought by any other party shall be solely responsible for the cost and defense in any action or proceeding seeking to compel disclosure of such materials; the District's sole involvement in any such action shall be that of a stakeholder, retaining the requested materials until otherwise ordered by a court of competent jurisdiction.

20. Drug Free Workplace Certificate. The successful Bidder will be required to execute a Drug Free Workplace Certificate pursuant to California Government Code §§8350 et seq., concurrently with execution of the Agreement.
21. Notice of Intent to Award Contract. Following the public opening and reading of Bid Proposals, the District will issue a Notice of Intent to Award the Contract, identifying the Bidder to whom the District intends to award the Contract and the date/time/place of the District's Board of Trustees meeting at which award of the Contract will be considered.
22. Bid Protest. Any Bidder submitting a Bid Proposal to the District may file a protest of the District's intent to award the Contract provided that each and all of the following are complied with: (i) the bid protest is in writing; (ii) the bid protest is filed and received by the District's Chief Business Officer, not more than five (5) calendar days following the date of bid opening; and (iii) the written bid protest sets forth, in detail, all grounds for the bid protest, including without limitation all facts, supporting documentation, legal authorities and argument in support of the grounds for the bid protest; any matters not set forth in the written bid protest shall be deemed waived. All factual contentions must be supported by competent, admissible and credible evidence. Any bid protest not conforming to the foregoing shall be rejected by the District as invalid. Provided that a bid protest is filed in strict conformity with the foregoing, the District's Chief Business Officer, or such individual(s) as may be designated by him/her, shall review and evaluate the basis of the bid protest. Either the Chief Business Officer, or other individual designated by him/her shall provide the bidder submitting the bid protest with a written statement concurring with or denying the bid protest. The rendition of a written statement by the District's Chief Business Officer, (or his/her designee) is an express conditions precedent to the institution of any judicial proceedings relative to the bidding process, the District's intent to award the Contract, the District's disposition of any bid protest or the District's decision to reject all Bid Proposals. If any such judicial proceedings are instituted and the District is named as a party thereto, the prevailing party(ies) shall recover from the other party(ies), as costs, all attorneys' fees and costs incurred in connection with any such proceeding, including any appeal arising there from.

[END OF SECTION]

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BID PROPOSAL
PROJECT: CAFETERIA AND MUSIC BLDG HVAC AND FIRE ALARM (“the Work”)

Bidder Name	_____	
Bidder Representative(s)	Name and Title _____	
	Name and Title _____	
Bidder Representative(s) Contact Information	Email _____	Phone/Fax _____
	_____	(_____) Telephone _____ (_____) Fax _____
Bidder Mailing Address	Address _____	
	City/State/Zip Code _____	
California Contractors' License	Number _____	
	Classification and Expiration Date _____	

1. Bid Proposal.

1.1. Bid Proposal Amount. The undersigned Bidder proposes to furnish all labor, materials, tools, equipment and services necessary to complete in accordance with the Contract Documents for the above-described Work, for the base bid sum of:

_____ Dollars (\$_____).

FOR BUDGETING PURPOSES ONLY, PLEASE PROVIDE THE FOLLOWING BREAKDOWN OF PRICING:

Amount of the base bid for the work associated with the Cafeteria HVAC and Fire Alarm:

_____ Dollars (\$_____)

Amount of the base bid for the work associated with the Music Bldg HVAC and Fire Alarm:

_____ Dollars (\$_____)

The Bidder confirms that it has checked all of the above figures and understands that neither the District nor any of its agents, employees or representatives shall be responsible for any errors or omissions in this Bid Proposal.

Allowance. The Bidder and District acknowledge that the Bid Proposal Price set forth above includes an Allowance Amount in the aggregate amount of Seventy Five thousand Dollars (\$75,000.00),

\$75,000.00	To be used at the District's Discretion

Although included in the Bid Proposal Price, Allowances belong solely to the District and shall be expended only upon written direction by the District, to be granted or denied in its sole discretion. Any Allowance amount not fully consumed shall belong solely to the District and shall be refunded to the District by a deductive change order. By submitting this Bid Proposal, the Bidder confirms that the Bid Price proposed in Paragraph 1.1 is inclusive of all Allowances.

- 1.2. Acknowledgment of Bid Addenda. The Bidder confirms that this Bid Proposal incorporates and is inclusive of, all items or other matters contained in Bid Addenda issued by or on behalf of the District. Received, acknowledged and incorporated into this Bid Proposal the following Addenda:

(List Addenda)

(Initials of Bidder's Representative)

- 1.3. Alternate Bid Items. If the bidding includes Alternate Bid Items, the Bidder's price proposal(s) for Alternate Bid Items is/are set forth in the form of Alternate Bid Item Proposal attached to this Bid Proposal. Price proposal(s) for Alternate Bid Item(s) will not form the basis for the District's award of the Contract unless an Alternate Bid Item is incorporated into the scope of Work of the Contract awarded.
2. Documents Accompanying Bid Proposal. The Bidder has submitted with this Bid Proposal the following: (i) Bid Security; (ii) Subcontractors List; (iii) Statement of Qualifications; (iv) Non-Collusion Affidavit; and (v) DIR Registration Verification. The Bidder acknowledges that if this Bid Proposal and the foregoing documents are not fully in compliance with applicable requirements set forth in the Call for Bids, the Instructions for Bidders and in each of the foregoing documents, the Bid Proposal may be rejected for non-responsiveness.
3. Award of Contract. Within five (5) days after notification of award of the Contract, the Bidder awarded the Contract shall execute and deliver to the District three original signature copies of the Contract in the form attached hereto along with: (i) Certificates of Insurance evidencing all insurance coverages required under the Contract Documents; (ii) the Performance Bond; (iii) the Labor and Material Payment Bond; (iv) the Certificate of Workers' Compensation Insurance; and (v) the Drug-Free Workplace Certificate. Failure of the Bidder awarded the Contract to strictly comply with the preceding may result in the District's recession of the award of the Contract and/or forfeiture of the Bidder's Bid Security. In such event, the District may, in its sole and exclusive discretion elect to award the Contract to the responsible Bidder submitting the next lowest priced Bid Proposal, or to reject all Bid Proposals.
4. Contractors' License. The Bidder certifies that: (i) it is duly licensed, in the necessary class(es), for performing the Work of the Contract Documents, as designated by the District; (ii) that such license shall be in full force and effect throughout the duration of the performance of the Work under the Contract Documents; and (iii) that all Subcontractors providing or performing any portion of the Work are and shall remain properly licensed to perform or provide such portion of the Work.
5. Agreement to Bidding Requirements and Attorneys' fees. The undersigned Bidder acknowledges and confirms its receipt, review and agreement with, the contractual requirements set forth in this Bid Proposal and the Contract Documents. By executing this Bid Proposal hereinbelow, the Bidder expressly acknowledges and agrees that if the Bidder institutes any legal or equitable proceedings in connection with this Bid Proposal and the District is named as a party thereto, the prevailing party(ies) shall recover from the other party(ies), as costs, all attorneys' fees and costs incurred in

connection with any such proceeding, including any appeal arising therefrom. This provision shall constitute a binding attorneys' fee agreement in accordance with and pursuant to California Civil Code §1717 which shall be enforceable against the Bidder and the District. This attorney fee provision shall be solely limited to legal or equitable proceedings arising out of a bid protest or the bidding process and shall not extend to or have any force and effect on the Contract for the Work or to modify the terms of the Contract Documents for the Work.

6. Acknowledgment and Confirmation. The undersigned Bidder acknowledges its receipt, review and understanding of the Drawings, the Specifications and other Contract Documents pertaining to the proposed Work. By submitting this Bid Proposal, the undersigned Bidder certifies that the Contract Documents are, in its opinion, adequate, feasible, accurate and complete for the Bidder to complete the Work in a workmanlike manner within the Contract Time and for the price proposed herein. The undersigned Bidder warrants and represents to the District that it has, or has available, all necessary equipment, personnel, materials, facilities and technical and financial ability to complete the Work for the amount bid herein, within the Contract Time and in accordance with the Contract Documents.

Dated: _____

By: _____
(Signature of Bidder's Authorized Officer or Representative)

(Typed or Printed Name)

Title: _____

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PRE-BID INQUIRY FORM

Project: Cafeteria and Music Bldg HVAC and Fire Alarm

Submittal Date _____

Bidder inquiries will be responded to only if: (i) submitted on this Pre-Bid Inquiry Form; (ii) this completed Pre-Bid Inquiry Form is submitted prior to the latest date/time for submittal of pre-bid inquiries as set forth in the Call for Bids; and (ii) this completed Pre-Bid Inquiry Form is submitted to the person or entity noted in the Call for Bids.

Item No.	Item Description	Drawing Sheet No. & Detail No. Reference	Specifications Section and Paragraph No. Reference

Submitted By:

(Bidder Name)

(Signature of Bidder's Authorized Employee, Officer or Representative)

Bidder Contact Information:

(Bidder Contact Name)

(Phone and Fax)

(Email Address)

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SUBCONTRACTORS LIST

Project ("the Work")	Cafeteria and Music Bldg HVAC and Fire Alarm
Bidder Name	_____
Bidder's Representative Signature	_____ (Signature) _____ (Typed or Printed Name)

Licensed Name of Subcontractor	Address of Office, Mill or Shop	Contractor's License Number	Trade or Portion of Work	DIR Registration Number

[DUPLICATE THIS FORM FOR ADDITIONAL SUBCONTRACTORS]

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**VERIFICATION OF CONTRACTOR AND
SUBCONTRACTORS' DIR REGISTRATION**

I am the _____ of _____ ("Bidder")
(Title/Position) (Bidder Name)

submitting the accompanying Bid Proposal for the Work described as **Cafeteria and Music Bldg
HVAC and Fire Alarm**

1. The Bidder is currently registered as a contractor with the Department of Industrial Relations ("DIR").
2. The Bidder's DIR Registration Number is: _____. The expiration date of the Bidder's DIR Registration is _____, 20____.
3. If the expiration date of the Bidder's DIR Registration will occur prior to expiration of the Contract Time for the Work and the Bidder is awarded the Contract for the Work, prior to the Bidder's DIR Registration expiration, the Bidder will take all measures necessary to renew the Bidder's DIR Registration so that there is no lapse in the Bidder's DIR Registration.
4. The Bidder, if awarded the Contract for the Work will remain a DIR registered contractor for the entire duration of the Work.
5. The Bidder has independently verified that each Subcontractor identified in the Subcontractors List is a DIR registered contractor.
6. The Bidder's solicitation of Subcontractor bids included notice to prospective Subcontractors that: (i) all sub-tier subcontractors must be DIR registered contractors at all times during performance of the Work; and (ii) prospective subcontractors may only solicit sub-bids from and contract with lower-tier subcontractors who are DIR registered contractors.
7. If any of the statements herein are false or omit material facts rendering a statement to be false or misleading, the Bidder's Bid Proposal is subject to rejection for non-responsiveness.
8. I have personal first hand-knowledge of all of the foregoing.

I declare under penalty of perjury under California law that the foregoing is true and correct.

Executed this ____ day of _____, 20____ at _____
(City and State)

(Signature)

(Name, typed or printed)

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STATEMENT OF QUALIFICATIONS

1. Bidder Information.

1.1. Contact Information

Mailing Address	_____
	Company Name
	Street Address

	City, State, Zip Code
Physical Location (if different from mailing address)	_____
	Street Address

	City, State, Zip Code
Telephone/Fax	(____) _____
	Telephone
	(____) _____
	Fax

1.2. Bidder Contacts.

Name	_____
Contact Information	Telephone: (____) _____
	Fax (____) _____
	Email _____

1.3. California Contractors' License.

License Number(s)	_____
License Classification(s)	_____
Responsible Managing Employee; Responsible Managing Officer	_____
Expiration Date(s)	_____

1.4. Bidder Form of Entity.

- Corporation
- General Partnership
- Limited Partnership
- Limited Liability Company
- Limited Liability Partnership
- Joint Venture
- Sole Proprietorship

[CONTINUED NEXT PAGE]

2. Revenue. Complete the following for the Applicant’s construction operations; if any portion of the revenue disclosed is generated by non-construction operations or activities, the Applicant must identify the portion of revenue attributed to construction operations and generally describe business activities of the Applicant that generates non-construction operations related revenue.

Calendar Year/ Fiscal Year	Annual Gross Revenue	Average Dollar Value of all Contracts	Dollar Value of Largest Contract
2016 (2015/2016)			
2017 (2016/2017)			
2018 (2017/2018)			

3. References.

DSA Project Inspectors			
Firm Name	Address	Telephone No.	Contact Name
Owners (K-12 School Districts or Community Colleges preferred)			
Owner Name	Address	Telephone No.	Contact Name
Architects (K-12 or Community College Projects)			
Architect Firm Name & Architect Firm Contact Name	Address	Telephone No.	Contact Name

[CONTINUED NEXT PAGE]

4. Insurance.

<p>Commercial General Liability Insurance</p>	<p>Insurer: _____ Policy No. _____ Broker _____</p>
<p>Commercial General Liability Insurance Broker</p>	<p>(Contact Name) _____ _____ (Street Address) _____ (City, State & Zip Code) _____ (_____) _____ (_____) _____ Telephone Fax _____ (Email address)</p>
<p>Bid, Performance and Labor & Materials Payment Bond Surety</p>	<p>Surety: _____ Surety Broker _____ _____ (Surety Broker Contact Name) _____ (Street Address) _____ (City, State & Zip Code) _____ (_____) _____ (_____) _____ Telephone Fax _____ (Email address)</p>
<p>Workers Compensation Insurance</p>	<p>Insurer: _____ Policy No. _____ Broker _____</p>
<p>Workers Compensation Insurance Broker</p>	<p>(Contact Name) _____ _____ (Street Address) _____ (City, State & Zip Code) _____ (_____) _____ (_____) _____ Telephone Fax _____ (Email address)</p>

[CONTINUED NEXT PAGE]

5. Essential Requirements. A Bidder will not be deemed qualified if the answer to any of the following questions results in a “not qualified” response and the Bid Proposal submitted by such a Bidder will be rejected for non-responsiveness.

5.1. Bidder possesses a valid and currently in good standing California Contractors’ license for the Classification(s) of Contractors’ License required by the Call for Bids.

Yes No (Not Qualified)

5.2. The Bidder is a DIR Registered Contractor.

Yes No (Not Qualified)

5.3. Bidder has a current commercial general liability insurance policy with coverage limits which are equal to or exceed the minimum coverage limit required by the Contract Documents.

Yes No (Not Qualified)

5.4. Bidder has a current workers’ compensation insurance policy as required by the Labor Code or is legally self-insured pursuant to Labor Code § 3700.

Yes No (Not Qualified)

Bidder is exempt from this requirement, because it has no employees

5.5. Certificates of Insurance evidencing the Bidder’s current commercial general liability insurance policy and workers compensation insurance are attached to the response to this Qualifications Statement.

Commercial General Liability Certificate of Insurance

Yes No (Not Qualified)

Workers Compensation Certificate of Insurance

Yes No (Not Qualified)

No, Applicant is exempt from this requirement, because it has no employees

5.6. Is the Bidder ineligible or debarred from submitting Bid Proposals for public works projects or public works contracts pursuant Labor Code §1777.1 or Labor Code §1777.7?

Yes (Not Qualified) No

5.7. Has any public agency, within the past five (5) years conducted proceedings that resulted in a finding that the Bidder, or any predecessor to the Bidder, is not a “responsible” bidder for a public works project or a public works contract?

Yes (Not Qualified) No

5.8. At any time during the last five (5) years, has the Bidder or any predecessor to the Bidder, or any of the equity owners of the Bidder been convicted of a federal or state crime involving fraud, theft, or any other act of dishonesty?

Yes (Not Qualified) No

5.9. At any time during the past five (5) years has a Surety completed any project or the Bidder's obligations under a construction contract?

Yes (Not Qualified) No

5.10. At any time during the past five (5) years has the Bidder been declared in default under any construction contract to which the Bidder was a party?

Yes (Not Qualified) No

5.11. Is the Bidder's Worker's Compensation Insurance average Experience Modification Rating ("EMR") rating over the past five (5) years more than 1.5?

Yes (Not Qualified) No

6. Accuracy and Authority. The undersigned is duly authorized to execute this Statement of Qualifications under penalty of perjury on behalf of the above-identified Bidder. The undersigned warrants and represents that he/she has personal knowledge of each of the responses to this Statement of Qualifications and/or that he/she has conducted all necessary and appropriate inquiries to determine the truth, completeness and accuracy of responses to this Statement of Qualifications. The undersigned declares and certifies that the responses to this Statement of Qualifications are complete and accurate; there are no omissions of material fact or information that render any response to be false or misleading and there are no misstatements of fact in any of the responses. The above-identified Bidder acknowledges and agrees that if the District determines that any response herein is false or misleading or contains misstatements of fact so as to be false or misleading, the Bidder's Bid Proposal may be rejected by the District for non-responsiveness.

Executed this ___ day of _____ 20__ at _____
(City and State)

I declare under penalty of perjury under California law that the foregoing is true and correct.

By: _____
(Signature of Bidder's Authorized Officer or Representative)

(Typed or Printed Name)

Title: _____

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NON-COLLUSION AFFIDAVIT

STATE OF CALIFORNIA)
COUNTY OF _____)

PROJECT: Cafeteria and Music Bldg HVAC and Fire Alarm

I, _____, being first duly sworn, deposes and says that I am the
(Typed or Printed Name)
_____ of _____, the party submitting
(Title) (Bidder Name)
the foregoing Bid Proposal ("the Bidder"). In connection with the foregoing Bid Proposal, the undersigned declares, states and certifies that:

The Bid Proposal is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization or corporation.

The Bid Proposal is genuine and not collusive or sham.

The bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any other bidder or anyone else to put in sham bid, or to refrain from bidding.

The bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price, or that of any other bidder, or to fix any overhead, profit or cost element of the bid price or that of any other bidder, or to secure any advantage against the public body awarding the contract or of anyone interested in the proposed contract.

All statements contained in the Bid Proposal and related documents are true.

The bidder has not, directly or indirectly, submitted the bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any person, corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

Executed this ____ day of _____, 20__ at _____.
(City, County and State)

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

Dated _____

By: _____
(Signature of Bidder's Authorized Officer or Representative)

(Typed or Printed Name)

Title: _____

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CERTIFICATE OF WORKERS' COMPENSATION INSURANCE

I, _____ the _____ of
(Name) (Title)
_____, declare state and certify that:
(Contractor Name)

I am aware that California Labor Code §3700(a) and (b) provides:

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

(a) By being insured against liability to pay compensation in one or more insurers duly authorized to write compensation insurance in this state.

(b) By securing from the Director of Industrial Relations a certificate of consent to self-insure either as an individual employer, or one employer in a group of employers, which may be given upon furnishing proof satisfactory to the Director of Industrial Relations of ability to self-insure and to pay any compensation that may become due to his or her employees.”

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

I am authorized to execute this Certificate of Workers Compensation Insurance on behalf of the above-identified Contractor.

Dated: _____

By: _____

(Name Printed or Typed)

Title: _____

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DRUG-FREE WORKPLACE CERTIFICATION

I, _____, am the _____ of _____
 (Print Name) (Title) (Contractor Name)

I declare, state and certify to all of the following:

1. I am aware of the provisions and requirements of California Government Code §§8350 et seq., the Drug Free Workplace Act of 1990.
2. I am authorized to certify, and do certify, on behalf of Contractor that a drug free workplace will be provided by Contractor by doing all of the following:
 - 2.1. Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensation, possession or use of a controlled substance is prohibited in Contractor's workplace and specifying actions which will be taken against employees for violation of the prohibition.
 - 2.2. Establishing a drug-free awareness program to inform employees about all of the following: (i) the dangers of drug abuse in the workplace; (ii) Contractor's policy of maintaining a drug-free workplace; (iii) the availability of drug counseling, rehabilitation and employee-assistance programs; and (iv) the penalties that may be imposed upon employees for drug abuse violations.
 - 2.3. Requiring that each employee engaged in the performance of the Contract be given a copy of the statement required by Paragraph 2.1 above, and that as a condition of employment by Contractor in connection with the Work of the Contract, the employee agrees to abide by the terms of the statement.
3. Contractor agrees to fulfill and discharge all of Contractor's obligations under the terms and requirements of California Government Code §8355 by, inter alia, publishing a statement notifying employees concerning: (i) the prohibition of any controlled substance in the workplace, (ii) establishing a drug-free awareness program, and (iii) requiring that each employee engaged in the performance of the Work of the Contract be given a copy of the statement required by California Government Code §8355(a) and requiring that the employee agree to abide by the terms of that statement.
4. Contractor and I understand that if the District determines that Contractor has either: (i) made a false certification herein, or (ii) violated this certification by failing to carry out and to implement the requirements of California Government Code §§8355, the Contract awarded herein is subject to termination, suspension of payments, or both. Contractor and I further understand that, should Contractor violate the terms of the Drug-Free Workplace Act of 1990, Contractor may be subject to debarment in accordance with the provisions of California Government Code §§8350, et seq.
5. Contractor and I acknowledge that Contractor and I are aware of the provisions of California Government Code §§8350, et seq. and hereby certify that Contractor and I will adhere to, fulfill, satisfy and discharge all provisions of and obligations under the Drug-Free Workplace Act of 1990.

I declare under penalty of perjury under the laws of the State of California that all of the foregoing is true and correct. Executed this ___ day of _____ 20__ at

 (City and State)

By: _____
 (Signature of Bidder's Authorized Officer or Representative)

 (Typed or Printed Name)

Title: _____

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AGREEMENT

THIS AGREEMENT is entered into as of December 11, 2019 in the City of Compton, County of Los Angeles, State of California, by and between COMPTON COMMUNITY COLLEGE DISTRICT, a California Community College District hereinafter "District" and TBD ("Contractor").

WITNESSETH, that the District and the Contractor in consideration of the mutual covenants contained herein agree as follows:

- 1. The Work.** Within the Contract Time and for the Contract Price, subject to adjustments thereto pursuant to the Contract Documents, the Contractor shall perform and provide all necessary labor, materials, tools, equipment, utilities, services and transportation to complete in a workmanlike manner all of the Work required in connection with the work of improvement commonly referred to as Site Concrete Work. The Contractor shall complete all Work covered by the Contract Documents, including without limitation, the Drawings and Specifications prepared by the Architect and other Contract Documents enumerated in Paragraph 5 of this Agreement, along with all modifications and addenda thereto issued in accordance with the Contract Documents. The Architect for the Work is N/A.
- 2. Contract Time.** The Work shall be commenced on the date stated in the District's Notice to Proceed. The Contractor shall achieve Substantial Completion of the Work (TBD) days after the commencement date of the Work set forth in the Notice to Proceed.
- 3. Contract Price.** The District shall pay the Contractor as full consideration for the Contractor's full, complete and faithful performance of the Contractor's obligations under the Contract Documents, subject to adjustments of the Contract Price in accordance with the Contract Documents, the Contract Price of TBD Dollars (\$TBD.00). The Contract Price is based upon the Contractor's Base Bid Proposal for the Work and the following Alternate Bid Items, if any: N/A. The District's Progress Payments of the Contract Price shall be subject to retention withholdings equal to five percent (5%) of each Progress Payment ("Retention"). Retention withheld by the District shall be disbursed to the Contractor as part of the Final Payment due the Contractor.
- 4. Liquidated Damages.** The Contractor shall be subject to assessment of Liquidated Damages if the Contractor: (i) fails to achieve Substantial Completion of the Work within the Contract Time, including adjustments thereto authorized by the Contract Documents; (ii) fails to submit Submittals in accordance with the Submittal Schedule; or (iii) fails to complete Punchlist items noted upon Substantial Completion within the time established to complete the Punchlist items. The per diem rate of Liquidated Damages assessed for each of the foregoing events is set forth in the Contract Documents.
- 5. Limitation on Damages.** If the District breaches or defaults in its performance of its obligations under the Contract Documents, the damages, if any, recoverable by the Contractor shall be limited to general damages which are directly and proximately caused by said breach or default of the District and shall exclude any and all special or consequential damages. By executing this Agreement, the Contractor expressly acknowledges the foregoing limitation to the recovery only of general damages from the District if the District is in breach or default of its obligations under the Contract Documents. The Contractor expressly waives any right to and foregoes the recovery of any special or consequential damages from the District including, without limitation, damages for: (i) lost or impaired bonding capacity; and/or, (ii) lost profits arising out of or in connection with any past, present, or future work of improvement, except for the Project which is the subject of the Contract Documents.

6. The Contract Documents. The documents forming a part of the Contract Documents consist of the following, all of which are component parts of the Contract Documents:

- | | |
|---|---|
| <ul style="list-style-type: none"> 00 01 10 Table of Contents 00 11 13 Notice Calling for Bids,
including Bid Addenda Nos. | <ul style="list-style-type: none"> 00 45 26 Certificate of Workers Compensation Insurance 00 45 27 Drug-Free Workplace Certification 00 52 00 Agreement 00 61 10 Bid Bond 00 61 13 Performance Bond 00 61 14 Labor and Material Payment Bond 00 62 90 Verification of Certified Payroll Records Submittal to Labor Commission 00 65 36 Guarantee Form 00 72 00 General Conditions 00 73 00 Special Conditions |
| <ul style="list-style-type: none"> 00 21 13 Instructions for Bidders 00 41 00 Bid Proposal 00 42 13 Alternate Bid Items Proposal Form 00 43 24 Pre-Bid Inquiry Form 00 43 36 Subcontractors List 00 45 13 Statement of Qualifications 00 45 19 Non-Collusion Affidavit | |

7. Notices. Notices of the District and Contractor to the other shall be transmitted in accordance with the Contract Documents. The effective date of notices transmitted in accordance with the Contract Documents shall be as set forth in the Contract Documents. Notices under the Contract Documents shall be addressed as follows:

If to the District:
 Steven Haigler
 Vice President, Administrative Services
 Compton Community College District
 Compton, CA 90221

1111 East Artesia Boulevard
If to the Contractor:

8. Authority to Execute. The individual(s) executing this Agreement on behalf of the Contractor is/are duly and fully authorized to execute this Agreement on behalf of Contractor and to bind the Contractor to each and every term, condition and covenant of the Contract Documents.

CONTRACTORS ARE REQUIRED BY LAW TO BE LICENSED AND REGULATED BY THE CONTRACTORS' STATE LICENSE BOARD. ANY QUESTIONS CONCERNING A CONTRACTOR MAY BE REFERRED TO THE REGISTRAR, CONTRACTORS' STATE LICENSE BOARD, P.O. BOX 2600, SACRAMENTO, CALIFORNIA 95826

IN WITNESS WHEREOF, this Agreement has been duly executed by the District and the Contractor as of the date set forth above

DISTRICT"
Compton Community College District

By: _____

 (Name Printed or Typed)

Title: _____

"CONTRACTOR"

By: _____

 (Name Printed or Typed)

Title: _____

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BID BOND

KNOW ALL MEN BY THESE PRESENTS that we, _____, as Surety and _____, as Principal, are jointly and severally, along with their respective heirs, executors, administrators, successors and assigns, held and firmly bound unto COMPTON COMMUNITY COLLEGE DISTRICT (“the Obligee”) for payment of the penal sum hereof in lawful money of the United States, as more particularly set forth herein.

THE CONDITION OF THIS OBLIGATION IS SUCH THAT:

WHEREAS, the Principal has submitted the accompanying Bid Proposal to the Obligee for the Work commonly described as **Cafeteria and Music Bldg HVAC and Fire Alarm**.

WHEREAS, subject to the terms of this Bond, the Surety and the Principal are jointly and severally firmly bound unto the Obligee in the penal sum equal to Ten Percent (10%) of the maximum amount of the Bid Proposal submitted by the Principal to the Obligee, inclusive of amounts proposed for Alternate Bid Items, if any.

NOW THEREFORE, if the Principal shall not withdraw said Bid Proposal within the period specified therein after the opening of the same, or, if no period be specified, for sixty (60) days after opening of said Bid Proposal; and if the Principal is awarded the Contract, and shall within the period specified therefore, or if no period be specified, within five (5) days after the prescribed forms are presented to him for signature, enter into a written contract with the Obligee, in accordance with the Bid Proposal as accepted and give such bond(s) with good and sufficient surety or sureties, as may be required, for the faithful performance and proper fulfillment of such Contract and for the payment for labor and materials used for the performance of the Contract, or in the event of the withdrawal of said Bid Proposal within the period specified for the holding open of the Bid Proposal or the failure of the Principal to enter into such Contract and give such bonds within the time specified, if the Principal shall pay the Obligee the difference between the amount specified in said Bid Proposal and the amount for which the Obligee may procure the required Work and/or supplies, if the latter amount be in excess of the former, together with all costs incurred by the Obligee in again calling for Bids, then the above obligation shall be void and of no effect, otherwise to remain in full force and effect.

Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or the Call for Bids, the Work to be performed there under, the Drawings or the Specifications accompanying the same, or any other portion of the Contract Documents shall in no way affect its obligations under this Bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of said Contract, the Call for Bids, the Work, the Drawings or the Specifications, or any other portion of the Contract Documents.

In the event suit or other proceeding is brought upon this Bond by the Obligee, the Surety and Principal shall be jointly and severally liable for payment to the Obligee all costs, expenses and

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fees incurred by the Obligee in connection therewith, including without limitation, attorneys' fees.

IN WITNESS WHEREOF, the Principal and Surety have executed this instrument this _____ day of _____, 20__ by their duly authorized agents or representatives.

(Bidder-Principal Name)

By: _____
(Signature)

(Typed or Printed Name)

Title: _____

(Attach Notary Public Acknowledgement of Principal's Signature)

(Surety Name)

By: _____
(Signature of Attorney-In-Fact for Surety)

(Typed or Printed Name of Attorney-In-Fact)

(Attach: (i) Attorney-In-Fact Certification; (ii) Notary Public Acknowledgment of Authorizing Signature on Attorney-Fact Certification; and (iii) Notary Public Acknowledgement of Attorney-In-Fact's Signature)

Contact name, address, telephone number and email address for notices to the Surety

(Contact Name)

(Street Address)

(City, State & Zip Code)

(_____) _____ (_____) _____
Telephone Fax

(Email address)

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS that we, _____, as Surety and _____, as Principal, are jointly and severally, along with their respective heirs, executors, administrators, successors and assigns, held and firmly bound unto COMPTON COMMUNITY COLLEGE DISTRICT (“the Obligee”) for payment of the penal sum the penal sum of _____ Dollars (\$_____) in lawful money of the United States, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally.

THE CONDITION OF THIS OBLIGATION IS SUCH THAT:

WHEREAS, the Obligee, by resolution of its Board of Trustees has awarded to the Principal a Contract for the Work described as **Cafeteria and Music Bldg HVAC and Fire Alarm**.

WHEREAS, the Principal, has entered into an agreement with the Obligee for performance of the Work; the Agreement and all other Contract Documents set forth therein are incorporated herein and made a part hereof by this reference.

WHEREAS, by the terms of the Contract Documents, the Principal is required to furnish a bond ensuring the Principal’s prompt, full and faithful performance of the Work of the Contract Documents.

NOW THEREFORE, if the Principal shall promptly, fully and faithfully perform each and all of the obligations and things to be done and performed by the Principal in strict accordance with the terms of the Contract Documents as they may be modified or amended from time to time; and if the Principal shall indemnify and save harmless the Obligee and all of its officers, agents and employees from any and all losses, liability and damages, claims, judgments, liens, costs, and fees of every description, which may be incurred by the Obligee by reason of the failure or default on the part of the Principal in the performance of any or all of the terms or the obligations of the Contract Documents, including all modifications, and amendments, thereto, and any warranties or guarantees required thereunder; then this obligation shall be void; otherwise, it shall be, and remain, in full force and effect.

The Surety, for value received, hereby stipulates and agrees that no change, adjustment of the Contract Time, adjustment of the Contract Price, alterations, deletions, additions, or any other modifications to the terms of the Contract Documents, the Work to be performed thereunder, or to the Specifications or the Drawings shall limit, restrict or otherwise impair Surety’s obligations or Obligee’s rights hereunder; Surety hereby waives notice from the Obligee of any such changes, adjustments of Contract Time, adjustments of Contract Price, alterations, deletions, additions or other modifications to the Contract Documents, the Work to be performed under the Contract Documents, or the Drawings or the Specifications.

In the event of the Obligee’s termination of the Contract due to the Principal’s breach or default of the Principal’s obligations thereunder, within twenty (20) days after written notice from the Obligee to the Surety of the Principal’s breach or default of the Contract Documents and Obligee’s termination of the Contract, the Surety shall notify Obligee in writing of Surety’s assumption of obligations hereunder by its election to either remedy the default or breach of the Principal or to take charge of the Work of the Contract Documents and complete the Work at its own expense (“the Notice of Election”); provided, however, that the procedure by which the Surety undertakes to discharge its obligations under this Bond shall be subject to the advance written approval of the Obligee, which

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approval shall not be unreasonably withheld, limited or restricted. The insolvency of the Principal or the Principal's denial of a failure of performance or default under the Contract Documents shall not by itself, without the Surety's prompt, diligent inquiry and investigation of such denial, be justification for Surety's failure to give the Notice of Election or for its failure to promptly remedy the failure of performance or default of the Principal or to complete the Work.

In the event the Surety fails to issue its Notice of Election to Obligee within the time provided for hereinabove, the Obligee may thereafter cause the cure or remedy of the Principal's failure of performance or default or to complete the Work. The Principal and the Surety shall be jointly and severally liable to the Obligee for all damages and costs sustained by the Obligee as a result of the Principal's failure of performance under the Contract Documents or default in its performance of obligations thereunder, including without limitation the costs of cure or completion of the Work exceeding the then remaining balance of the Contract Price; provided that the Surety's liability hereunder for the costs of performance, damages and other costs sustained by the Obligee upon the Principal's failure of performance or default under the Contract Documents shall be limited to the penal sum hereof, which shall be deemed to include the costs or value of any Changes to the Work which increases the Contract Price.

In the event suit or other proceeding is brought upon this Bond by the Obligee, the Surety and Principal shall be jointly and severally liable for payment to the Obligee of all costs, expenses and fees incurred by the Obligee therewith, including without limitation, attorneys' fees.

IN WITNESS WHEREOF, the Principal and Surety have executed this instrument this ____ day of _____, 20__ by their duly authorized agent or representative

(Contractor-Principal Name)

By: _____

(Signature)

(Typed or Printed Name)

Title: _____

(Attach Notary Public Acknowledgement of Principal's Signature)

Contact name, address, telephone number and email address for notices to the Surety

(Contact Name)

(Street Address)

(City, State & Zip Code)

(_____) _____ (_____) _____

Telephone Fax

(Email address)

(Surety Name)

By: _____

(Signature of Attorney-In-Fact for Surety)

(Typed or Printed Name of Attorney-In-Fact)

(Attach: (i) Attorney-In-Fact Certification; (ii) Notary Public Acknowledgment of Authorizing Signature on Attorney-Fact Certification; and (iii) Notary Public Acknowledgement of Attorney-In-Fact's Signature)

LABOR AND MATERIAL PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS that we, _____, as Surety and _____, as Principal, are jointly and severally, along with their respective heirs, executors, administrators, successors and assigns, held and firmly bound unto COMPTON COMMUNITY COLLEGE DISTRICT ("the Oblige") for payment of the penal sum the penal sum of _____ Dollars (\$_____) in lawful money of the United States, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally.

THE CONDITION OF THIS OBLIGATION IS SUCH THAT:

WHEREAS, the Oblige, by resolution of its Board of Trustees has awarded to the Principal a Contract for the Work described as **Cafeteria and Music Bldg HVAC and Fire Alarm**.

WHEREAS, the Principal, has entered into an Agreement with the Oblige for performance of the Work, the Agreement and all other Contract Documents set forth therein are incorporated herein by this reference and made a part hereof.

WHEREAS, by the terms of the Contract Documents, the Principal is required to furnish a bond for the prompt, full and faithful payment to any Claimant, as hereinafter defined, for all labor materials or services used, or reasonably required for use, in the performance of the Work.

NOW THEREFORE, if the Principal shall promptly, fully and faithfully make payment to any Claimant for all labor, materials or services used or reasonably required for use in the performance of the Work then this obligation shall be void; otherwise, it shall be, and remain, in full force and effect.

The term "Claimant" shall refer to any person, corporation, partnership, proprietorship or other entity including without limitation, all persons and entities described in California Civil Code §9100, providing or furnishing labor, materials or services used or reasonably required for use in the performance of the Work under the Contract Documents, without regard for whether such labor, materials or services were sold, leased or rented. This Bond shall inure to the benefit of all Claimants so as to give them, or their assigns and successors, a right of action upon this Bond.

In the event suit is brought on this Bond by any Claimant for amounts due such Claimant for labor, materials or services provided or furnished by such Claimant, the Surety shall pay for the same and reasonable attorneys' fees pursuant to California Civil Code §9554.

The Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration, deletion, addition, or any other modification to the terms of the Contract Documents, the Work to be performed thereunder, the Specifications or the Drawings, or any other portion of the Contract Documents, shall in any way limit, restrict or otherwise affect its obligations under this Bond; the Surety hereby waives notice from the Oblige of any such change, extension of time, alteration, deletion, addition or other modification to the Contract Documents, the Work to be performed under the Contract Documents, the Drawings or the Specifications of any other portion of the Contract Documents.

[CONTINUED NEXT PAGE]

IN WITNESS WHEREOF, the Principal and Surety have executed this instrument this _____ day of _____, 20__ by their duly authorized agent or representative.

(Contractor-Principal Name)

By: _____
(Signature)

(Typed or Printed Name)

Title: _____

(Attach Notary Public Acknowledgement of Principal's Signature)

(Surety Name)

By: _____
(Signature of Attorney-In-Fact for Surety)

(Typed or Printed Name of Attorney-In-Fact)

(Attach: (i) Attorney-In-Fact Certification; (ii) Notary Public Acknowledgment of Authorizing Signature on Attorney-Fact Certification; and (iii) Notary Public Acknowledgement of Attorney-In-Fact's Signature)

Contact name, address, telephone number and email address for notices to the Surety

(Contact Name)

(Street Address)

(City, State & Zip Code)

(_____) _____ (_____) _____
Telephone Fax

(Email address)

**CERTIFICATION OF CERTIFIED PAYROLL RECORDS SUBMITTAL
TO LABOR COMMISSION**

I am the _____ for _____ in connection with
(Superintendent/Project Manager) (Contractor)
_____. This Certification is submitted to Compton
(Project Name)

Community College District concurrently with the Contractor's submittal of an Application for Progress Payment to the District, identified as Application For Progress Payment No. _____ ("the Pay Application").

1. The Pay Application requests the District's disbursement of a Progress Payment covering Work performed for the period between _____, 20__ and _____, 20__.
2. The Contractor has submitted Certified Payroll Records ("CPR") to the Labor Commissioner for all employees of the Contractor engaged in performance of Work subject to prevailing wage rate requirements for the period of time covered by the Pay Application.
3. All Subcontractors who are entitled to any portion of payment to be disbursed pursuant to the Pay Application have submitted their CPRs to the Labor Commissioner for all of their employees performing Work subject to prevailing wage rate requirements for the period of time covered by the Pay Application.
4. I have reviewed the Contractor's CPRs submitted to the Labor Commissioner; the CPRs submitted to the Labor Commissioner by the Contractor are complete and accurate for the period of time covered by the Pay Application.
5. I have reviewed the Subcontractors' CPRs submitted to the Labor Commissioner; the CPRs submitted to the Labor Commissioner by the Subcontractors are complete and accurate for the period of time covered by the Pay Application.

I declare under penalty of perjury under California law that the foregoing is true and correct. I executed this Certification on the ____ day of _____, 20__ at

(City and State)

By: _____

(Typed or Printed Name)

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GUARANTEE

Project: Cafeteria and Music Bldg HVAC and Fire Alarm

The Contractor hereby warrants and guarantees to the District that all work, materials, equipment and workmanship provided, furnished or installed by or on behalf of Contractor in connection with the above referenced Project (the "Work") have been provided, furnished and installed in strict conformity with the Contract Documents for the Work, including without limitation, the Drawings and the Specifications. Contractor further warrants and guarantees that all work, materials, equipment and workmanship as provided, furnished and/or installed are fit for use as specified and fulfill all applicable requirements of the Contract Documents including without limitation, the Drawings and the Specifications. Contractor shall, at its sole cost and expense, repair, correct and/or replace any or all of the work, materials, equipment and/or workmanship of the Work, together with any other items which may be affected by any such repairs, corrections or replacement, that may be unfit for use as specified or defective within a period of two (2) years from the date of the District's Final Acceptance of the Work, ordinary wear and tear and unusual abuse or neglect excepted.

In the event of the Contractor's failure and/or refusal to comply with the provisions of this Guarantee, within the period of time set forth in the Contract Documents after the District's issuance of the Notice to the Contractor of any defect(s) in the Work, materials, equipment or workmanship, Contractor authorizes the District, without further notice to Contractor, to repair, correct and/or replace any such defective item at the expense of the Contractor. The Contractor shall reimburse the District for all costs, expenses or fees incurred by the District in providing or performing such repairs, corrections or replacements within ten (10) days of the District's presentation of a demand to the Contractor for the same.

The provisions of this Guarantee and the provisions of the Contract Documents for the Work relating to the Contractor's Guarantee(s) and warranty(ies) relating to the Work shall be binding upon the Contractor's Performance Bond Surety and all successors or assigns of Contractor and/or Contractor's Performance Bond Surety.

The provisions of this Guarantee are in addition to, and not in lieu of, any provisions of the Contract Documents for the Work relating to the Contractor's guarantee(s) and warranty(ies) or any guarantee(s) or warranty(ies) provided by any material supplier or manufacturer of any equipment, materials or other items forming a part of, or incorporated into the Work, or any other guarantee or warranty obligation of the Contractor, prescribed, implied or imposed by law.

The undersigned individual executing this Guarantee on behalf of Contractor warrants and represents that he/she is duly authorized to execute this Guarantee on behalf of Contractor and to bind Contractor to each and every provision hereof.

Contractor

(Contractor Name)

(Signature of Contractor's Authorized Employee, Officer
Or Representative)

(Printed Name and Title)

(Date)

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GENERAL CONDITIONS

1. Definitions

- 1.1. The Work. The "Work" is the construction and services required by the Contract Documents, and includes all labor, materials, equipment or services to fulfill the Contractor's obligations under the Contract Documents.
- 1.2. Surety. The Surety is the person or entity that executes, as surety, the Contractor's Labor and Material Payment Bond and/or Performance Bond.
- 1.3. Subcontractors. A Subcontractor is a person or entity who has a direct contract with the Contractor for a portion of the Work; Subcontractors include lower tier subcontractors, who are in direct privity of contract with a Subcontractor.
- 1.4. Material Supplier. A Material Supplier only furnishes materials, equipment or supplies for the Work without fabricating, installing or consuming them in the Work.
- 1.5. Drawings and Specifications. The Drawings are the graphic and pictorial portions of the Contract Documents, showing generally, the design, location and dimensions of the Work and may include plans, elevations, sections, details, schedules or diagrams. The Specifications are the written requirements for materials, equipment, construction systems, standards, criteria and workmanship.
- 1.6. Intent and Correlation of Contract Documents. The Contract Documents are complementary and what is required by one portion shall be by all; performance by the Contractor is required to the extent consistent with the Contract Documents and reasonably inferable therefrom as being necessary to produce the intended results. If a portion of the Contract Documents is silent and information appears elsewhere in the Contract Documents, such other portions of the Contract Documents shall control. Words or terms with well-known technical or construction industry meanings are used in the Contract Documents in accordance with such recognized meanings. Conflicts, inconsistencies or ambiguities in the Contract Documents shall be resolved by the Architect based on the following standards: the Drawings are intended to describe matters relating to placement, type, quantity and the like; the Specifications are intended to describe matters relating to quality, materials, compositions, manufacturers and the like. If conflicts exist between parts of the Contract Documents regarding the quality of any product, equipment or materials, the Contractor shall provide the product, equipment or material of the highest or more stringent quality.
- 1.7. Shop Drawings; Samples; Product Data ("Submittals"). Shop Drawings are diagrams, schedules and other data specially prepared for the Work to illustrate the installation, assembly or similar matters for a portion of the Work. Samples are physical examples of materials, equipment or workmanship to be incorporated into the Work. Product Data are illustrations, standard schedules, performance charts, instructions, brochures, diagrams and other information to illustrate materials or equipment for a portion of the Work. Shop Drawings, Samples and Product Data prepared by the Contractor or any Subcontractors/Material Suppliers are collectively referred to as "Submittals."
- 1.8. Division of State Architect ("DSA"). DSA is the California Division of the State Architect; references to "DSA" include its offices, employees and agents. The authority of the DSA over the Work and the performance thereof shall be as set forth in the Contract Documents and the Laws.
- 1.9. Project Inspector. The Project Inspector is employed by the District in accordance with the requirements of Title 24 of the California Code of Regulations. The Project Inspector is authorized to act on behalf of the District as provided for in the Contract Documents and in Title 24 of the California Code of Regulations.
- 1.10. Contract Document Terms. The term "provide" means "provide complete in place" or to "furnish and install" such item. Unless otherwise provided in the Contract Documents, the terms "approved;" "directed;" "satisfactory;" "accepted;" "acceptable;" "proper;" "required;" "necessary" and "equal" means as approved, directed, satisfactory, accepted, acceptable,

proper, required, necessary and equal, in the opinion of the Architect. The term “typical” as used in the Drawings shall require the installation or furnishing of such item(s) of the Work designated as “typical” in all other areas similarly marked as “typical”; Work in such other areas shall conform to that shown as “typical” or as reasonably inferable therefrom.

- 1.11. Record Drawings. The Record Drawings are the Drawings marked by the Contractor during the Work to indicate completely and accurately actual as-built conditions of the Work.
- 1.12. Construction Manager. The Construction Manager, if any, is designated in the Special Conditions and is authorized to act on behalf of the District in accordance with the Contract Documents. If a Construction Manager is not designated in the Special Conditions, the District may designate a Construction Manager during performance of the Work without adjustment of the Contract Price or the Contract Time or otherwise affect, limit or restrict Contractor’s obligations hereunder.
- 1.13. Construction Equipment. “Construction Equipment” is equipment utilized for the performance of any portion of the Work, but which is not incorporated into the Work.
- 1.14. Site. The Site is the physical area designated in the Contract Documents for Contractor’s performance, construction and installation of the Work.
- 1.15. Field Clarifications. A written or graphic document consisting of supplementary details, instructions or information issued on behalf of the District which clarifies or supplements the Contract Documents and which becomes a part of the Contract Documents upon issuance. Field Clarifications do not constitute Changes, unless a Change Order relating to a Field Clarification is authorized and issued.
- 1.16. Defective or Non-Conforming Work. Defective or Non-Conforming Work is any Work which is unsatisfactory, faulty or deficient by: (i) not conforming to the requirements of the Contract Documents; (ii) not conforming to the standards of workmanship of the applicable trade; (iii) not in compliance with the requirements of any inspection, reference, standard, test, or approval required by the Contract Documents; or (iv) damage occurring prior to Final Acceptance.
- 1.17. Notice to Proceed. The Notice to Proceed is the written notice issued by or on behalf of the District to the Contractor authorizing the Contractor to proceed with commencement of the Work and which establishes the date for commencement of the Contract Time.
- 1.18. Progress Reports; Verified Reports. Progress Reports are written reports prepared by the Contractor and its Subcontractors on a daily basis. Progress Reports must include: (i) the number of labor and supervising personnel at the Site; (ii) the labor/work classification of each laborer; (iii) a detailed description of the Work in progress and completed; (iv) weather/environmental conditions; and (v) problems encountered with a potential impact to the Contract Time or the Contract Price. Verified Reports are periodic written reports prepared by the Contractor and submitted to the DSA; Verified Reports shall be in such form and content as required by Title 24 of the California Code of Regulations.
- 1.19. Laws. “Laws” refer to all laws, ordinances, codes, rules and/or regulations promulgated by any governmental or quasi-governmental agency with jurisdiction over any portion of the Work and which apply to any portion of the Work, including those in effect as of the execution of the Agreement, amendments thereto and subsequently enacted Laws that take effect during the performance of the Work. No adjustment of the Contract Time or the Contract Price shall be allowed for the Contractor’s compliance with the Laws.

2. District

2.1. Information Required of District.

2.1.1. Surveys; Site Information. Information, if any, concerning physical characteristics of the Site, including without limitation, surveys, soils reports, and utility locations is set forth in the Contract Documents. Information not provided by the District but required to complete the Work shall be obtained by Contractor without adjustment to the Contract Price or the Contract Time.

The Contractor shall verify all information provided by the District. Variations between conditions or existing improvements depicted in the Contract Documents and those actually encountered in the performance of the Work shall not result in any District liability therefor, nor shall any such variations result in an adjustment of the Contract Time or the Contract Price.

2.1.2. Permits; Fees. Except as otherwise provided in the Contract Documents, the District shall secure and pay for necessary approvals, easements, assessments and charges required for construction of the Work.

2.1.3. Drawings and Specifications. The District shall furnish the Contractor, without cost to the Contractor, the number of copies of the Drawings and the Specifications as set forth in the Special Conditions. All of the Drawings and the Specifications provided by the District to the Contractor remain the property of the District; the Contractor shall not use the Drawings or the Specifications other than the Work of the Project.

2.2. District's Right to Stop the Work. The District may, by written order, direct the Contractor to stop any portion of the Work if the Contractor: (i) fails to correct Defective or Non-Conforming Work; or (ii) fails to carry out the Work in conformity to the Contract Documents. The right of the District to stop the Work hereunder shall not: (i) be deemed a duty of the District to exercise such right for the benefit of the Contractor; (ii) waive or limit the exercise of any other right or remedy of the District under the Contract Documents or the Laws; or (iii) result in adjustment of the Contract Time or the Contract Price.

2.3. Partial Occupancy or Use. The District may occupy or use any completed or partially completed portion of the Work. Immediately prior to such partial occupancy or use of the Work, the District, Project Inspector, Contractor, Construction Manager and Architect shall jointly inspect the portion of Work to be used or occupied by the District to record the condition of the Work. Corrective action noted in such inspection shall be promptly performed and completed by the Contractor so the Work conforms to requirements of the Contract Documents and the District's occupancy or use thereof is not impaired. The District's use or occupancy of the Work or portions thereof is not "completion" of the Work pursuant to Public Contract Code §7107 nor constitute the District's acceptance Defective or Non-Conforming Work.

2.4. The Project Inspector.

2.4.1. Authority. All Work shall be performed under the observation of the Project Inspector, whose authority is established by the Laws and the Contract Documents. Duties of the Project Inspector shall not relieve or limit the Contractor's performance of its obligations under the Contract Documents. The Project Inspector does not have authority: (i) to interpret the Contract Documents or to modify the Work depicted in the Contract Documents; or (ii) relating to the Contractor's safety plan. Upon the Project Inspector's issuance of a report or other similar statement identifying Defective or Non-Conforming Work, the Contractor shall promptly repair, replace or correct the same so that it conforms to requirements of the Contract Documents. If the Contractor fails or refuses to promptly remedy Defective or Non-Conforming Work, the District may remedy such Defective or Non-Conforming Work at the expense of the Contractor.

2.4.2. Facilities and Information for the Project Inspector. The Contractor shall provide to the Project Inspector all information, data and similar materials as necessary or appropriate for the Project Inspector's purposes of fulfilling the Project Inspector's obligations relating to observations and inspections of the Work. The Contractor shall provide, without adjustment of the Contract Price, for use by the Project Inspector, the District and Construction Manager the facilities, equipment, furnishings and services set forth in the Special Conditions. If the Contractor does not provide the facilities, furnishings, equipment and services set forth in the Special Conditions, or fails to pay timely any charges or fees arising out of the use of the same, the District may, as applicable, procure facilities, furnishings, equipment and services required

by the Contract Documents or pay outstanding charges, at the expense of the Contractor.

- 2.5. Communications Software. The District reserves the right to implement electronic data and/or communications software (such as Primavera Expedition®) for data and communications relating to the Work (“Communications Software”). The Contractor’s use of Communications Software will be as directed by the District without charge or expense to the Contractor and without adjustment of the Contract Price or the Contract Time.

3. Architect

- 3.1. Architect’s Administration of the Contract. The Architect will provide administration of the Contract and will be one of the District’s representatives during construction until the time that Final Payment is due the Contractor under the Contract Documents. The Architect is authorized to act on behalf of the District as provided for in the Contract Documents and shall have the responsibilities and authority over the Work as established by the Laws.
- 3.2. Periodic Site Inspections. The Architect will visit the Site at intervals appropriate to the stage of construction to: (i) become generally familiar with the progress and quality of the completed Work; and (ii) determine if the Work is being performed so that when completed will be in accordance with the Contract Documents. On the basis of Site observations as an architect, the Architect will keep the District informed of the progress of the Work, and endeavor to guard the District against defects and deficiencies in the Work. The Architect is authorized to reject Defective or Non-Conforming Work. The Architect may require additional inspections or tests, whether or not the Work is fabricated, installed or completed.
- 3.3. Contractor Responsibility for Construction Means, Methods and Sequences. The Architect will not have control over or charge of and will not be responsible for construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the Work, these being solely the Contractor’s responsibility.
- 3.4. Submittals. The Architect will review and accept or take other appropriate action relating to Submittals for the limited purpose of checking for general conformance with information given and the design concept expressed in the Contract Documents. The Architect’s review of Submittals shall not: (i) relieve the Contractor of its obligations under the Contract Documents; (ii) constitute approval of safety measures, programs or precautions; or (iii) constitute the direction of construction means, methods, techniques, sequences or procedures. The Architect’s review and return of reviewed Submittals will conform to the time limits set forth in the Specifications, the Construction Schedule or other provisions of the Contract Documents. If no time limits are established in the foregoing, the Architect shall have fourteen (14) days for review and return of Submittals.
- 3.5. Changes; Change Orders. The Architect will prepare Change Orders, and may authorize minor Changes in the Work which do not result in adjustment of the Contract Time or the Contract Price. The Architect may issue Field Clarifications and Construction Change Directives.
- 3.6. Interpretation of Contract Documents. The Architect will interpret and decide matters concerning the requirements of the Contract Documents on written request of either the District or the Contractor. The Architect’s response to such requests will be made promptly and within the time limits agreed upon; if agreement establishing the time for the Architect’s review and response to requests is not reached, the Architect shall have fifteen (15) days after receipt of such request to respond thereto. Interpretations and decisions of the Architect will be

consistent with the intent of and reasonably inferable from the Contract Documents and will be in writing or in the form of drawings. The Architect's decisions on matters relating to aesthetic effect are final if consistent with the intent expressed in the Contract Documents.

- 3.7. Contractor Request for Information. If the Contractor encounters any condition which the Contractor believes, in good faith and with reasonable basis, is the result of an ambiguity, conflict, error or omission in the Contract Documents (collectively "the Conditions"), the Contractor must request information from the Architect necessary to address and resolve any such Conditions before proceeding with any portion of the Work affected or which may be affected by such Conditions. If the Architect reasonably determines that any of Contractor's request(s) for information: (i) does not reflect adequate or competent supervision or coordination by the Contractor or any Subcontractor; or (ii) does not reflect the Contractor's adequate or competent knowledge of the requirements of the Work or the Contract Documents; or (iii) is not justified for any other reason, Contractor shall be liable to the District for all costs incurred by the District to process, review, evaluate and respond to such request for information, including without limitation, fees of the Architect.
- 3.8. Communications; Architect's Role. All communications regarding the Work, the performance thereof or the Contract Documents shall be in writing; verbal communications shall be reduced to writing. Communications between the Contractor and the District shall be through the Architect or Construction Manager. All written communications between the Contractor and any Subcontractor, Material Supplier or others shall be available to the District for review, inspection and reproduction as requested from time to time.

4. The Contractor

4.1. Contractor Review of Contract Documents.

4.1.1. Examination of Contract Documents. The Contractor shall carefully study Contract Documents and information furnished by the District and shall immediately notify the Architect in writing of errors, inconsistencies or omissions discovered. If the Contractor performs any Work knowing, or with reasonable diligence should have known that, it involves an error, inconsistency or omission in the Contract Documents without prior notice to the Architect, the Contractor shall bear the costs for correction of the same.

4.1.2. Measurements, Layouts and Field Engineering. The Contractor shall take field measurements and verify field conditions at the Site. All field engineering required for laying out the Work and establishing grades for earthwork operations shall be by an engineer registered under the Laws and without adjustment of the Contract Price. The Contractor shall complete all surveys necessary for performance of the Work and for establishment, location, maintenance and preservation of benchmarks, reference points and stakes for the Work.

4.1.3. Drawings; Dimensions. Unless otherwise expressly provided, dimensions indicated in the Drawings are: (i) intended for reference only; and (ii) diagrammatic and schematic in nature. The Contractor is solely responsible for dimensioning and coordinating the Work of the Contract Documents. No Contract Price adjustment will be allowed on account of differences between actual dimensions and the dimensions indicated on the Drawings.

4.1.4. Work in Accordance With Contract Documents. The Contractor shall perform all of the Work in strict conformity with the Contract Documents and the Laws.

4.2. Site Investigation; Subsurface Conditions.

4.2.1. Subsurface Data. By executing the Agreement, the Contractor acknowledges that it has examined the boring data and other available subsurface data and has satisfied itself as to the character, quality and quantity of surface and subsurface materials, including without limitation, obstacles which may be encountered in performance of the Work. Subsurface data or other

soils investigation report provided by the District hereunder are not a part of the Contract Documents. Information contained in such data or report regarding subsurface conditions, elevations of existing grades, or below grade elevations are approximate only and is neither guaranteed or warranted by the District to be complete and accurate. The District assumes no responsibility for any conclusions or interpretations of the Contractor on the basis of available subsurface data or other information furnished by District under the Contract Documents.

4.2.2. Subsurface Conditions. If the Work involves digging trenches or other excavations that extend deeper than four (4) feet below the surface, the Contractor shall promptly and before the following conditions are disturbed, notify the Project Inspector, in writing, of any: (i) material that the Contractor believes may be material that is hazardous waste, as defined in California Health and Safety Code §25117, that is required to be removed to a Class I or Class II or Class III disposal site in accordance with provisions of existing law; (ii) subsurface or latent physical conditions at the site differing from those indicated; or (iii) unknown physical conditions at the site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in the Work or the character provided for in the Contract Documents. If the District determines that the conditions so materially differ or involve such hazardous materials requiring an adjustment to the Contract Price or the Contract Time, the District shall issue a Change Order in accordance with Article 9 hereof. Pursuant to California Public Contract Code §7104, disputes between the Contractor and the District as to any of the conditions listed in (i), (ii) or (iii) above, shall not excuse the Contractor from the completion of the Work within the Contract Time and the Contractor shall proceed with all Work to be performed under the Contract Documents.

4.3. Supervision and Construction Procedures.

4.3.1. Supervision of the Work. The Contractor shall supervise and direct performance of the Work, using the Contractor's best skill and attention. The Contractor is responsible to the District for acts and omissions of the employees, agents and representatives of the Contractor and Subcontractors.

4.3.2. Noise and Dust Control. The Contractor shall implement all measures necessary for noise and dust control during Work at the Site, including specific care to avoid deposits of airborne dust or airborne elements.

4.3.3. Clean-Up. The Contractor shall at all times keep the Site and all adjoining areas free from the accumulation of any waste material or rubbish. The Contractor shall maintain the Site in a "rake-clean" standard on a daily basis. The Project Inspector or Construction Manager may direct the Contractor's clean-up obligations hereunder. If the Contractor fails to clean up as provided for in the Contract Documents, the District may do so at the Contractor's expense.

4.3.4. Cutting and Patching. The Contractor is responsible for cutting, fitting or patching required to complete the Work or to make the component parts thereof fit together properly. The Contractor shall not damage or endanger any portion of the Work, or the fully or partially completed construction of the District or separate contractors by cutting, patching, excavation or other alteration.

4.3.5. Construction Utilities. The District will furnish and pay the costs of utility services for the Work as set forth in the Special Conditions; all other utilities necessary to complete the Work shall be obtained by the Contractor without adjustment of the Contract Price. The Contractor shall furnish and install temporary distributions of utilities at the Site as necessary for the Work, including utilities furnished by the District. All temporary distributions shall be removed by the Contractor upon completion of the Work. The costs of utility services obtained by the Contractor and the installation and removal of temporary distributions thereof are included in the Contract Price.

4.3.6. Existing Utilities; Removal, Relocation and Protection. Pursuant to California Government Code §4215, the District assumes responsibility for timely removal, relocation, or

protection of existing main or trunkline utility facilities located on the Site which are not identified in the Contract Documents. The Contractor shall be compensated for the costs of locating, repairing damage not due to the Contractor's failure to exercise reasonable care, and removing or relocating such utility facilities not indicated in the Contract Documents with reasonable accuracy and for Construction Equipment on the Site necessarily idled during such work. The Contractor shall not be assessed Liquidated Damages for delay in completion of the Work when such delay is caused by the failure of the District or the utility owner to provide for removal or relocation of such utility facilities. The District is not required to indicate existing service laterals or appurtenances if presence of such utilities on the Site can be inferred from the presence of other visible facilities, such as buildings, meters and junction boxes, on or adjacent to the Site. If the Contractor encounters utility facilities not identified in the Contract Documents, the Contractor shall immediately notify, in writing, the District, Project Inspector, Architect, Construction Manager and the utility owner. If such utility facilities are owned by a public utility, 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.

4.4. Conferences and Meetings. A material obligation of the Contractor is the attendance by the Contractor's supervisory and/or management personnel (who shall be authorized to act on behalf of the Contractor) at meetings relating to the Work, including weekly progress meetings. The Contractor is responsible for arranging for attendance by Subcontractors, Material Suppliers at meetings and conferences relating to the Work as necessary, appropriate or as requested by the District. All costs, expenses, charges or fees incurred by the Contractor in connection with attendance and participation meetings relating to the Work shall be without adjustment of the Contract Time or the Contract Price. The Architect or Construction Manager will prepare and distribute minutes reflecting the items addressed and actions taken at a meeting or conference. The Contractor shall have five (5) days after the date of distribution of minutes to notify the Construction Manager and Architect in writing of objections to such minutes. Failure of the Contractor to interpose objections within said five (5) days will result the minutes as distributed constituting the official record of the meeting or conference. Objections of Subcontractors or Material Suppliers to minutes shall be submitted to the Architect or Construction Manager through the Contractor. If the Contractor timely interposes objections or notes corrections, the resolution of such matters shall be addressed at the next scheduled meeting.

4.5. Labor and Materials.

4.5.1. Payment for Labor, Materials and Services. The Contractor shall provide and pay for labor, materials, equipment, tools, Construction Equipment and machinery, water, heat, utilities, transportation, and other facilities and/or services necessary for proper execution and completion of the Work, whether temporary or permanent and whether or not incorporated in the Work.

4.5.2. Employee Discipline and Competency. The Contractor shall enforce strict discipline and good order among employees of the Contractor, Subcontractors and all other persons performing any part of the Work at the Site. The Contractor shall not permit employment of unfit persons or persons not skilled in tasks assigned to them. The Contractor shall dismiss from its employ and direct any Subcontractor to dismiss from their employment any person deemed by the District to be unfit or incompetent to perform Work.

4.5.3. Contractor's Superintendent. The Contractor's superintendent shall at the Site at all times during the Work. The superintendent shall represent the Contractor and communications given to the superintendent shall be binding as if given to the Contractor. The Contractor shall submit to the District a written statement of the qualifications of the Contractor's proposed Superintendent. Acceptance of the Contractor's proposed Superintendent is subject to

establishing the Superintendent's: (i) skills, experience and other capabilities of the proposed Superintendent to supervise, coordinate and manage the Work; (ii) fluent verbal and written English language capabilities; (iii) competency in reading, comprehending and understanding Drawings, Specifications and other technical construction-related materials; and (iv) recent experience in completing construction projects similar to the Work within the budget and time established for such other construction projects. Upon acceptance of the Contractor's Superintendent, the Contractor shall not be change the Superintendent without prior consent of the District, unless the Superintendent: (i) is unsatisfactory to the Contractor; or (ii) is determined by the District to be unfit, incompetent or incapable of performing functions and responsibilities assigned.

4.5.4. Prohibition on Harassment. Any person engaging in a prohibited form of harassment is subject to immediate removal and thereafter excluded from the Site. Upon the District's receipt of any notice or complaint that a person performing Work at the Site has engaged in a prohibited form of harassment ("Worker"), the District will promptly undertake an investigation of such notice or complaint. If the District, after such investigation, reasonably determines that a prohibited form of harassment has occurred, the District will notify the Contractor of the same and direct that the Worker be immediately removed from the Site. Unless the District's determination is grossly negligent or without reasonable cause, District shall have no liability for directing the removal of any Worker determined to have engaged in a prohibited form of harassment nor shall the Contract Price or the Contract Time be adjusted on account thereof. The Contractor and the Surety shall defend, indemnify and hold harmless the Indemnified Parties from any and all claims, liabilities, judgments, awards, actions or causes of actions, including without limitation, attorneys' fees, which arise out of, or pertain in any manner to: (i) the assertion by any Worker that the direction of the District pursuant to the foregoing was improper; or (ii) the assertion by any person that a Worker has engaged in a prohibited form of harassment directed to or affecting such person.

4.5.5. Taxes. The Contractor shall pay, without adjustment of the Contract Price, all sales, consumer, use and other taxes for the Work or portions thereof provided by the Contractor under the Contract Documents.

4.6. Permits, Fees and Notices; Compliance With Laws.

4.6.1. Payment of Permits, Fees. Unless otherwise provided in the Contract Documents, the District shall secure and pay for the building permits, other permits, governmental fees, licenses and inspections necessary or required for the proper execution and completion of the Work. The foregoing notwithstanding: (i) the Contractor shall pay all fees, costs or other expenses associated with or arising in connection with Deferred Approval Items without adjustment of the Contract Price; and (ii) the Contractor shall obtain the following permits/approvals if applicable to the Work without adjustment of the Contract Price: (a) Temporary Fire Department plan check and permits for temporary material handling, storage and/or dispensing facilities for fuel, oil, liquid or gases; (b) industrial waste and AQMD permits relating to temporary facilities used in connection with any portion of the Work; (c) local business license; (d) traffic control, OSHA and offsite improvement permits; and (e) sewer, water, storm drain, gas tie plan check permits.

4.6.2. Compliance With Laws. The Contractor shall comply with and give notices required by the Laws and other orders of public authorities bearing on performance of the Work. All Work completed by the Contractor shall be in compliance with the Laws.

4.6.3. Notice of Variation From Laws. If the Contractor knows, or has reason to believe, that any portion of the Contract Documents are at variance with applicable Laws, the Contractor shall promptly notify the Architect, Construction Manager and the Project Inspector, in writing, of the same. If the Contractor performs Work knowing, or with reasonable diligence should have known, it to be contrary to the Laws without such notice to the Architect, Construction Manager and the Project Inspector, the Contractor shall assume full responsibility for such Work

and shall bear the attributable costs arising or associated therefrom, including without limitation, the removal, replacement or correction of the same.

4.6.4. DIR Registration. At all times during the Work, the Contractor shall be a DIR registered contractor. Performance of any Work by the Contractor without the Contractor being a DIR registered contractor at the time Work is performed is the Contractor's default in performance of a material obligation of the Contractor under the Contract Documents.

4.7. Submittals. Submittals are not part of the Contract Documents. Submittals shall demonstrate, for those portions of the Work for which Submittals are required, the manner in which the Contractor proposes to furnish, install or incorporate such Work in conformity with the information given and the design concept expressed in the Contract Documents.

4.7.1. Contractor's Submittals.

4.7.1.1. Prompt Submittals. All Submittals required by the Contract Documents shall be prepared, assembled and submitted by the Contractor to the Architect in a timely manner or within the time indicated in the Submittal Schedule incorporated into the Accepted Construction Schedule.

4.7.1.2. Contractor Approval of Subcontractor Submittals. All Submittals prepared by Subcontractors or Material Suppliers shall bear the written approval of the Contractor prior to submission to the Architect for review, with the approval indicating that the Contractor has verified materials, field measurements, field construction criteria, catalog numbers and similar data related thereto and has verified that the information contained within such Submittals conform to the requirements the Contract Documents. Any Submittal submitted without the Contractor's written approval will be returned to the Contractor for re-submittal in conformity herewith, with the same being deemed to not have been submitted. Submittals shall be numbered consecutively and include the following: (i) date of submission; (ii) project name; (iii) name of submitting Subcontractor; and (iv) if applicable, the revision number. The foregoing information is in addition to, and not in lieu of, any other information required for the Architect's review of Submittals.

4.7.1.3. Contractor Responsibility for Deviations. The Contractor is not relieved of responsibility for correcting deviations from the Contract Documents by the Architect's review of Submittals unless the Contractor specifically informs the Architect in writing of such deviation at the time of submission of the Submittal and the Architect accepts the specific deviation.

4.7.1.4. No Performance of Work Without Architect Review. The Contractor shall perform no portion of the Work requiring the Architect's review of Submittals until the Architect has completed its review and accepted the Submittal. The Contractor shall not perform any portion of the Work affected by a related Submittal until the related Submittal is reviewed and accepted by the Architect.

4.7.2. Architect Review of Submittals. If the Architect returns a Submittal as rejected or requiring correction(s) with re-submission, the Contractor shall promptly resubmit a Submittal conforming to the requirements of the Contract Documents; the resubmitted Submittal shall indicate the portions thereof modified in accordance with the Architect's direction. When professional certification of performance criteria of materials, systems or equipment is required by the Contract Documents, the Architect may rely on the accuracy and completeness of such calculations and certifications accompanying Submittals. The following notations or notations of a similar nature noted on a reviewed Submittal will require the Contractor action noted below.

Submittal Notation	Required Contractor Action
No Exceptions Taken	No formal revision required
Make Corrections Noted	Make revision noted; re-submission of

	revised Submittal not required.
Revise and Re-Submit	Revise Submittal in accordance with notations and re-submit for review.
Rejected Re-Submit	Prepare new alternative Submittal and re-submit for review.

4.7.3. Deferred Approval Items. If any portion of the Work is designated in the Contract Documents as a “Deferred Approval” item, Contractor is responsible for preparing Submittals for Deferred Approval Items. Where required by the Laws or the nature of a Deferred Approval, the Deferred Approval Design shall be completed and stamped by a California licensed architect or California registered engineer. The Deferred Approval Design shall: (i) incorporate all requirements of the Deferred Approval as set forth in the Contract Documents; (ii) be coordinated with other portions of the Work; (iii) be completed in a timely manner so as not to delay, disrupt or interfere with completion of the Work within the Contract Time; and (iv) be completed in accordance with the applicable professional standard of care. The Contractor shall submit each completed Deferred Approval Design to the Architect for review and acceptance. Upon the Architect’s acceptance of a Deferred Approval Design, the Contractor shall be responsible for: (i) submittal of the Deferred Approval Design to DSA for review and approval; (ii) modifications to the Deferred Approval Design as necessary to obtain DSA approval; and (iii) payment of fees or charges imposed by DSA for review and approval of a Deferred Approval Design without adjustment of the Contract Price. Notwithstanding review and acceptance of a Deferred Approval Design by the Architect or DSA issuance of approval to construct pursuant to the Contractor’s Deferred Approval Design, the Contractor remains liable to the District for all losses, damages, costs, or other consequences of the failure of any Contractor’s Deferred Approval Design to: (i) conform to the applicable design professional standard of care; (ii) conform to design intent and/or aesthetic requirements established in the Contract Documents; or (iii) perform and function in accordance with requirements established in the Contract Documents.

4.8. Materials and Equipment.

4.8.1. Approval of Substitutions or Alternatives. The Contractor may propose alternatives or substitutes for items specified in the Contract Documents (“Alternative Products”), provided that: (i) the Alternative Products comply with the requirements of the specified item; (ii) the Contractor certifies that the quality, performance capability and functionality (including aesthetics) of the Alternative Products meet or exceed the quality, performance capability and functionality of the specified item; and (iii) use of the Alternative Product will not delay completion of the Work or increase the Contract Price. The Contractor shall submit engineering, construction, dimension, visual, aesthetic and performance data (“Substantiating Data”) to the Architect to permit evaluation of the Alternative Products. The Contractor shall not furnish or install any Alternative Products without the Architect’s acceptance of the Alternative Products. The Architect’s decision evaluating the Contractor’s proposed Alternative Products shall be final. Neither the Contract Time nor the Contract Price shall be increased on account of any Alternative Products accepted by the Architect. The Contract Price shall be reduced by the actual cost savings realized by the Contractor’s furnishing and/or installation of accepted Alternative Products. The Contractor is solely responsible for all costs and fees incurred by the District to review proposed Alternative Products, including without limitation fees of the Architect, design consultants to the Architect and/or governmental agencies to review and/or approve any proposed substitution or alternative. All requests for the Architect’s review and approval of any Alternative Products and all Substantiating Data shall be submitted by Contractor not later than thirty-five (35) days following the date of the District’s award of the Contract to Contractor; any request for approval of Alternative Products submitted thereafter may be rejected summarily.

The foregoing process and time limits shall apply to any proposed Alternative Products regardless of whether the Alternative Products are furnished or installed by the Contractor, a Subcontractor or Material Supplier.

4.8.2. District Standard Products; "Sole Source" Products. If any material, equipment, product or other item ("Product") is designated in the Contract Documents as a "District Standard" or by similar words/terms, the District is deemed to have made a finding that such Product is designated and specified to match other Products in use in a completed or to be completed work of improvement and not subject to Alternative Products.

4.8.3. Placement of Material and Equipment Orders. The Contractor and Subcontractors shall promptly place all orders for materials and/or equipment for completion of the Work so that delivery of the same shall be made without delay or interruption to the Work. When requested by or on behalf of the District, the Contractor shall furnish written evidence of the placement of orders for materials and/or equipment necessary for completion of the Work, including without limitation, orders for materials and/or equipment to be provided, furnished or installed by any Subcontractor.

4.8.4. District's Right to Place Orders for Materials and/or Equipment. If the District determines, in its sole discretion, that orders for materials and/or equipment have not been placed in a manner so Substantial Completion is achieved within the Contract Time, the District shall have the right, but not the obligation, to place such orders on behalf of the Contractor. The Contractor shall reimburse the District for all costs and fees incurred by the District in placing such orders.

4.9. Safety. The Contractor is solely responsible for initiating, maintaining and supervising all safety programs required by the Laws or by the type or nature of the Work and for initiating and maintaining reasonable safety precautions to prevent damage, injury or loss to: (i) employees on the Work and other persons who may be affected thereby; (ii) the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site or in transit; and (iii) other property or items at the Site, or adjacent thereto, such as trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction. The foregoing includes, without limitation, posting danger signs and other warnings against hazards, promulgating safety regulations and notifying owners and users of adjacent sites and utilities. Duties of the Contractor's Superintendent include prevention of accidents and the implementation of safety precautions and programs. In an emergency, the Contractor shall take necessary action to prevent or mitigate threatened damage, injury or loss.

4.10. Hazardous Materials; Prohibition on Use of Asbestos Construction Building Materials ("ACBMs"). If the Contractor or any Subcontractor uses, at the Site, or incorporates into the Work, any material or substance deemed to be hazardous or toxic under the Laws (collectively "Hazardous Materials"), the Contractor shall comply with the Laws relating to the use, storage or disposal thereof. It is the intent of the District that ACBMs not be used or incorporated into any portion of the Work. If any product or material forming a part of the Work or incorporated into the Work is found to contain ACBMs, the Contractor shall at its sole cost and expense: (i) remove such product or material in accordance with the Laws; (ii) replace such product or material with non-ACBM products or materials; and (iii) return the affected portion(s) of the Work to the finish condition depicted in the Contract Documents relating to such portion(s) of the Work. The foregoing obligations shall survive the termination of the Contract, the warranty period provided under the Contract Documents, completion of the Work or the District's acceptance of the Work. If the Contractor fails or refuses, for any reason, to commence the removal and replacement of any material or product containing ACBMs forming a part of, or incorporated into the Work, within ten (10) days of the date of the District's written notice to the Contractor, the District may thereafter proceed to cause the removal and replacement of such

materials or products; all costs, expenses and fees, including without limitation fees and costs of consultants and attorneys, shall be the joint and several responsibility of the Contractor and the Surety.

- 4.11. Maintenance of Record Drawings. During the Work, the Contractor shall continuously maintain Record Drawings consisting of a set of the Drawings marked to indicate all field changes to adapt the Work depicted in the Drawings to field conditions, Change Orders and all concealed or buried installations, including without limitation, piping, conduit and utility services. Record Drawings relating to the Structural, Mechanical, Electrical and Plumbing portions of the Work shall indicate without limitation, circuiting, wiring sizes, equipment/member sizing and shall depict the entirety of the as built conditions of such portions of the Work. If the District reasonably determines that the Contractor has not been, or is not, continuously maintaining the Record Drawings pursuant to the foregoing, the District may take appropriate action to cause the continuous maintenance of complete and accurate Record Drawings, at the Contractor's expense. Prior to receipt of the Final Payment, Contractor shall deliver the Record Drawings to the Architect.
- 4.12. Use of Site. The Contractor shall confine operations at the Site to areas permitted the Laws and the Contract Documents and shall not unreasonably encumber the Site or adjoining areas with materials or equipment. The Contractor is solely responsible for providing security at the Site with all such costs included in the Contract Price. Except in an emergency, no construction activities shall be permitted at or about the Site except during the hours and days set forth in the Special Conditions; Work performed at hours or on days not noted in the Special Conditions will not result in adjustment of the Contract Time or the Contract Price.
- 4.13. Access to the Work. The Contractor shall provide DSA, District, Construction Manager, the Project Inspector and Architect with access to the Work, whether in place, preparation and progress and wherever located.
- 4.14. Patents and Royalties. The Contractor and the Surety shall defend, indemnify and hold harmless the District and its agents, employees and officers from any claim, demand or legal proceeding arising out of or pertaining, in any manner, to any actual or claimed infringement of patent rights in connection with performance of the Work under the Contract Documents.
- 4.15. Wage Rates; Employment of Labor.
- 4.15.1. Payment of Prevailing Rates. There shall be paid each worker of the Contractor and Subcontractors engaged in the Work, not less than the general prevailing wage rate, regardless of any contractual relationship which may be alleged to exist between the Contractor or any Subcontractor and such worker. During the Work and pursuant to Labor Code §1771.4(a)(4), the Department of Industrial Relations will monitor and enforce the obligation of the Contractor and Subcontractors to pay laborers at least the Prevailing Wage Rate established for the classification of work/labor performed.
- 4.15.2. Prevailing Rate Penalty. If a worker of the Contractor or a Subcontractor is paid less than the prevailing wage rate for the work or craft provided by the worker, the Contractor and/or Subcontractor shall be subject all penalties and assessments established by the Laws.
- 4.15.3. Certified Payroll Records. The Contractor and all Subcontractors shall prepare and submit Certified Payroll Records to the Labor Commissioner in compliance with requirements established in Labor Code §1771.4. The form and content of Certified Payroll Records shall be as established by the Labor Commissioner and the frequency of Certified Payroll Records submittal to the Labor Commissioner shall be pursuant to Labor Code §1771.4. Pursuant to California Labor Code §1776, the Contractor and each Subcontractor shall keep accurate

payroll records, showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each person employed for the Work. The payroll records shall be certified and available for inspection at all reasonable hours at the principal office of the Contractor in accordance with the Laws. If the Contractor and/or Subcontractor fail or refuse to produce payroll records as required by the Laws, the Contractor and/or Subcontractor shall be subject to all penalties and assessments under the Laws as a result of such failure or refusal.

4.15.4. Hours of Work. The Contractor and Subcontractors shall limit the hours of work by their respective workers to those permitted by the Laws. Hours of work exceeding those permitted by the Laws shall be subject to additional premium wage payments as required by the Laws. Failure of the Contractor or Subcontractors to comply with the foregoing will subject the Contractor and/or Subcontractor to all penalties and assessments under the Laws.

- 4.16. Apprentices. Apprentices for the Work shall be in strict conformity with the Laws, including without limitation, Labor Code §§1777.5 through 1777.7, the provisions of which are incorporated herein by this reference. The responsibility for compliance with apprenticeship requirements is solely and exclusively that of the Contractor. If the Contractor willfully fails to comply with these provisions and California Labor Code §1777.5, pursuant to California Labor Code §1777.7, the Contractor shall be subject to all penalties and assessments established by the Laws.
- 4.17. Employment of Independent Contractors. Pursuant to California Labor Code §1021.5, Contractor shall not willingly and knowingly enter into any agreement with any person, as an independent contractor, to provide services for the Work where the services provided or to be provided requires the person to hold a valid California Contractors' license and such person does not meet the burden of proof of his/her independent contractor status pursuant to California Labor Code §2750.5. Employment of any person in violation of the foregoing, will subject the Contractor to the civil penalties under California Labor Code §1021.5 and any other penalty provided by the Laws. All Subcontractors shall comply with the foregoing.
- 4.18. Assignment of Antitrust Claims. The Contractor and all Subcontractors assign to the District all rights, title and interest in and to all causes of action they may have under Section 4 of the Clayton Act, (15 U.S.C. §15) or under the Cartwright Act (California Business and Professions Code §§16700 et seq.) pursuant to California Government Code §4551. This assignment shall be made and become effective at the time the District tenders Final Payment to the Contractor, without further acknowledgment by the parties.
- 4.19. Progress Reports; DSA Verified Reports.
- 4.19.1. DSA Verified Reports; Contractor Actions. A material obligation of the Contractor is completion of all actions and activities which by the Contract Documents or by the Laws are the responsibility of the Contractor relating to DSA reporting requirements pursuant to Education Code §81141 (including amendments thereto) and issuance of DSA's Certificate of Compliance for the Project pursuant to Education Code §81147 (including amendments thereto) upon completion of the Work. The foregoing shall include without limitation, the timely preparation, completion and filing of Verified Reports during Project construction and the filing of the Final Verified Report with DSA within ten (10) days of the determination of Final Completion. Concurrently with submittal to DSA, the Contractor shall provide the District, Project Inspector and Architect with copies of all Verified Reports completed by the Contractor and submitted to DSA.
- 4.19.2. District Withholdings From Final Payment. The completion and filing of the DSA Final Verified Report is an express condition precedent to the District's disbursement of the Final

Payment. If the Contractor fails to prepare and file the Final Verified Report within ten (10) days of the determination of Final Completion, the District may retain and withhold an amount not to exceed ten percent (10%) of the Final Payment from disbursement to the Contractor as damages for the failure of the Contractor to have timely and completely discharged its obligations hereunder. The Contractor acknowledges and agrees that the foregoing withholdings by the District is a reasonable estimate of the damages and other losses the District will sustain due to the failure of the Contractor to have timely and fully discharged its obligations hereunder.

4.19.3. Progress Reports. Progress Reports shall be submitted to the District or Construction Manager not later than 9:00 A.M. of the ensuing business day.

5. Subcontractors.

5.1. Subcontracts. Work performed by Subcontractors shall be pursuant to a written agreement between the Contractor and each Subcontractor which specifically incorporates by reference the Contract Documents and which specifically binds the Subcontractor to the applicable terms and conditions of the Contract Documents, including without limitation, the policies of insurance required under Article 6 of these General Conditions and obligates the Subcontractor to assume toward the Contractor and Architect all the obligations and responsibilities of the Contractor which the Contractor assumes toward the District and the Architect. No contractual relationship shall exist, or deemed to exist, between any Subcontractor and the District, unless the Contract is terminated and District, in writing, elects to assume the Subcontract. Each Subcontract shall provide that such Subcontract may be assigned to the District if the Contract is terminated by the District pursuant to these General Conditions, subject to the prior rights, if any, of the Surety.

5.2. Subcontractor DIR Contractor Registration.

5.2.1. No Subcontractor Performance of Work Without DIR Registration. No portion of the Work is permitted to be performed by a Subcontractor unless the Subcontractor is a DIR Registered contractor. The foregoing DIR contractor registration requirement is applicable for all Subcontractors, including without limitation, lower tier Subcontractors and Subcontractors who are not identified in the Contractor's Subcontractors List.

5.2.2. Contractor Obligation to Verify Subcontractor DIR Registration Status. An affirmative and on-going obligation of the Contractor under the Contract Documents is the Contractor's verification that all Subcontractors are at all times during performance of the Work in full and strict compliance with DIR contractor registration requirements. The Contractor shall not permit or allow any Subcontractor to perform any Work without the Contractor's verification that the Subcontractor is in full and strict compliance with DIR contractor registration requirements.

5.2.3. Contractor Obligation to Request Substitution of Listed Subcontractor Who Is Not DIR Registered Contractor. If any Subcontractor identified in the Contractor's Subcontractors List submitted with the Contractor's proposal for the Work is not a DIR registered contractor at the time of opening of proposals for the Work or if a Subcontractor's DIR contractor registration lapses prior to or during a Subcontractor's performance of Work, the Contractor shall request the District's consent to substitute the Subcontractor who is not a DIR registered contractor pursuant to Labor Code §1771.1(c)(3) and/or Labor Code §1771.1(d).

5.3. Substitution of Listed Subcontractor.

5.3.1. Substitution Process. Any request of the Contractor to substitute a listed Subcontractor must be in strict conformity with this Article 5.2 and California Public Contract Code §4107. All costs, fees or expenses incurred by the District, including, those of the Project Inspector, Architect and/or Construction Manager or attorneys in review, evaluation or hearing relating to a request to substitute a listed Subcontractor shall be borne by the Contractor.

5.3.2. Responsibilities of Contractor Upon Substitution of Subcontractor. The District's consent to Contractor's substitution of a listed Subcontractor shall not result in any increase of the Contract Price or the Contract Time.

5.4. Subcontractors' Work. Whenever the Work of a Subcontractor is dependent upon the Work of the Contractor or another Subcontractor, the Contractor shall require the Subcontractor to: (i) coordinate its Work with the dependent Work; (ii) provide necessary dependent data and requirements; (iii) supply and/or install items to be built into the dependent Work of others; (iv) make appropriate provisions for dependent Work of others; (v) carefully examine and understand the portions of the Contract Documents (including Drawings, Specifications and Field Clarifications) and Submittals relating to the dependent Work; and (vi) examine the existing dependent Work and verify that the dependent Work is in proper condition for the Subcontractor's Work.

6. Insurance, Indemnity and Bonds.

6.1. Workers' Compensation Insurance; Employer's Liability Insurance. The Contractor shall purchase and maintain: (i) Workers' Compensation Insurance covering claims under workers' or workmen's compensation, disability benefit and other similar employee benefit acts; and (ii) Employer's Liability Insurance covering bodily injury (including death) by accident or disease to any employee which arises out of the employee's employment by Contractor.

6.2. Commercial General Liability and Property Insurance. The Contractor shall purchase and maintain Commercial General Liability and Property Insurance covering the types of claims set forth below which may arise out of or result from Contractor's operations under the Contract Documents and for which the Contractor may be legally responsible: (i) claims for damages because of bodily injury, sickness or disease or death of any person other than the Contractor's employees; (ii) claims for damages insured by usual personal injury liability coverage which are sustained (a) by a person as a result of an offense directly or indirectly related to employment of such person by the Contractor, or (b) by another person; (iii) claims for damages, other than to the Work itself, because of injury to or destruction of tangible property, including loss of use resulting therefrom; (iv) claims for damages because of bodily injury, death of a person or property damages arising out of ownership, maintenance or use of a motor vehicle; (v) contractor's pollution liability; (vi) contractual liability insurance applicable to the Contractor's obligations under the Contract Documents; and (vii) Completed Operations.

6.3. Builder's Risk "All-Risk" Insurance. The Contractor shall obtain Builder's Risk "All-Risk" Insurance covering vandalism and malicious mischief, fire, sprinkler leakage, civil authority, sonic boom, collapse and flood upon the entire Work, including completed Work and Work in progress to the full insurable value thereof. Contractor's Builders Risk Insurance shall include seismic coverage if so indicated in the Special Conditions. Such insurance shall include the District as an additional named insured, and any other person with an insurable interest designated by the District as an additional named insured. The risk of 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.

6.4. Coverage Amounts. The insurance required of the Contractor hereunder shall be written for not less than any limits of liability specified in the Contract Documents, or required by the Laws, whichever is greater.

6.5. Evidence of Insurance; Subcontractor's Insurance.

6.5.1. Certificates of Insurance. Prior to commencing the Work, Contractor shall deliver Certificates of Insurance to the District evidencing the insurance coverages required by the Contract Documents. The Certificates of Insurance shall contain a provision that coverages under such policies will not be canceled or expire until at least thirty (30) days prior written notice has been given to the District. The insurance policies required of Contractor hereunder shall also name the District as an additional insured as its interests may appear.

6.5.2. Subcontractors' Insurance. Each Subcontractor shall obtain and maintain the policies of insurance set forth in Articles 6.1 and 6.2 with minimum coverage limits as set forth in the Special Conditions. The policies of insurance to be obtained and maintained by Subcontractors hereunder are in addition to, and not in lieu of, the Contractor's insurance obligations. Each policy of insurance of a Subcontractor shall conform to the requirements of this Article 6. The Contractor shall promptly deliver Certificates of Insurance to the District evidencing that the Subcontractors have obtained and maintained policies of insurance in conformity with the requirements of this Article 6.

6.5.3. Insurer Requirements. Policies of insurance required of the Contractor and Subcontractors hereunder shall be acceptable to the District only if the insurer issuing each such policy of insurance is A.M. Best rated at least A-/VII and authorized by the Laws to issue policies of insurance in California.

6.6. Contractor's Insurance Primary; Contractor Liability for Deductibles. All insurance coverages maintained by Contractor hereunder, if overlapping with any policy of insurance maintained by the District, shall be deemed to be primary and non-contributing with any policy maintained by the District and any policy or coverage thereunder maintained by District shall be deemed excess insurance. If the District maintains a policy of insurance covering property damage arising out of the perils of fire or other casualty covered by the Contractor's Builder's Risk Insurance or the Comprehensive General Liability Insurance of the Contractor or any Subcontractor, the District, Contractor and all Subcontractors waive rights of subrogation against the others. The costs for obtaining and maintaining the insurance coverages required of the Contractor and Subcontractors shall be included in the Contract Price. The Contractor is solely and exclusively responsible for payment of deductibles under any policy of insurance obtained and maintained by the Contractor or any Subcontractor.

6.7. Indemnity. Unless arising solely out of the active negligence, gross negligence or willful misconduct the District, Construction Manager, Project Inspector or Architect, the Contractor shall indemnify, defend and hold harmless the Indemnified Parties who are: (i) the District, its Board of Trustees and each individual member thereof, and the officers, employees, agents and representatives of the District; (ii) the Architect and its consultants for the Work and their respective agents and employees; (iii) the Project Inspector; and (iv) the Construction Manager and its agents and employees. The Contractor's obligations hereunder includes indemnity, defense and hold harmless of the Indemnified Parties from and against any and all damages, losses, claims, demands or liabilities whether for damages, losses or other relief, including, without limitation attorneys' fees and costs which arise, in whole or in part, from the Work, the Contract Documents or the acts, omissions or other conduct of the Contractor, Subcontractor or any person or entity engaged by them for the Work. The Contractor's obligations under the foregoing include without limitation: (i) injuries to or death of persons; (ii) damage to property; (iii) theft, loss or destruction of property; (iv) Stop Payment Notice claims asserted in connection with the Work; and (v) other losses, liabilities, damages or costs resulting from, in whole or part, any acts, omissions or other conduct of Contractor, any Subcontractor, or any other person or entity employed directly or indirectly by Contractor or a Subcontractor in connection with the Work and their respective agents, representatives, officers or employees.

If any action or proceeding is commenced on account of any claim, demand or liability subject to Contractor's obligations hereunder, and any of the Indemnified Parties are a party thereto, the Contractor shall, at its sole cost and expense, defend the Indemnified Parties in such action or proceeding with counsel reasonably satisfactory to the named Indemnified Parties. If there is any judgment, award, ruling, settlement, or other relief arising out of any such action or proceeding to which any of the Indemnified Parties are bound by, the Contractor shall pay, satisfy or otherwise discharge any such judgment, award, ruling, settlement or relief; Contractor shall indemnify and hold harmless the Indemnified Parties from any and all liability or responsibility arising out of any such judgment, award, ruling, settlement or relief. The Contractor's obligations hereunder are binding upon Contractor's Performance Bond Surety and these obligations shall survive notwithstanding Contractor's completion of the Work or the termination of the Contract, until barred by the applicable Statute of Limitations.

- 6.8. Payment Bond; Performance Bond. Prior to commencing the Work, the Contractor shall obtain and deliver to the District a Performance Bond and a Labor and Material Payment Bond each in a penal sum equal to one hundred percent (100%) of the Contract Price and in the form and content set forth in the Contract Documents. The Surety issuing bonds shall be an Admitted Surety Insurer as defined in California Code of Civil Procedure §995.120 and A.M. Best rated at least A-/VII. Obligations of the Surety under the Performance Bond include without limitation, the Contractor's post-construction obligations, including timely and complete performance of warranty/guarantee obligations.

7. Contract Time

- 7.1. Substantial Completion of the Work Within Contract Time. The Contract Time is the period of time, including authorized adjustments thereto, for achieving Substantial Completion of the Work. The date for commencement of the Work is the date established in the Notice to Proceed issued by the District pursuant to the Agreement, which shall not be postponed by the failure to act of the Contractor or of persons or entities for which the Contractor is responsible. The date of Substantial Completion is the date certified by the Architect, Construction Manager and Project Inspector.

- 7.2. Progress and Completion of the Work.

7.2.1. Time of Essence. Time limits stated in the Contract Documents are of the essence. The Contractor shall employ and supply a sufficient force of workers, material and equipment, and prosecute the Work with diligence so as to maintain progress, to prevent Work stoppage and to achieve Substantial Completion of the Work within the Contract Time.

7.2.2. Substantial Completion. Substantial Completion is when the Work is complete in accordance with the Contract Documents so the District can occupy or use the Work for its intended purpose. Substantial Completion shall be determined by the Architect, Construction Manager and Project Inspector upon request by the Contractor. The good faith and reasonable determination of Substantial Completion by the Project Inspector, Construction Manager and the Architect shall be controlling and final.

- 7.2.3. Correction or Completion of the Work After Substantial Completion.

7.2.3.1. Punchlist. Upon achieving Substantial Completion of the Work, the District, The Project Inspector, Construction Manager, Architect and Contractor shall jointly inspect the Work and prepare a comprehensive list of items of the Work to be corrected or completed by the Contractor ("the Punchlist"). The exclusion of an item on the Punchlist shall not limit the Contractor's obligation to complete or correct any portion of the Work in accordance with the Contract Documents.

7.2.3.2. Time for Completing Punchlist Items. The Construction Manager, Contractor and Architect shall, establish a reasonable time for Contractor's completion of the

Punchlist. If mutual agreement is not reached, the Architect shall determine such time, which is final and binding upon the District and Contractor so long as the Architect's determination is made in good faith. The Contractor shall promptly and diligently complete all Punchlist items within the time established. If the Contractor fails to complete the Punchlist within the time established, the Contractor shall be subject to assessment of Liquidated Damages and the District may in its sole and exclusive discretion, without further notice to Contractor, elect to cause the completion of all remaining Punchlist items provided, however, that such election by the District is in addition to and not in lieu of any other right or remedy of the District under the Contract Documents or the Laws, including assessment of Liquidated Damages. If the District elects to complete Punchlist items of the Work, pursuant to the foregoing, the Contractor shall be responsible for all costs incurred by the District in connection herewith. If these costs exceed the remaining Contract Price due to the Contractor, the Contractor and the Performance Bond Surety are jointly and severally liable to District for any such excess costs.

7.2.3.3. Final Completion. Final Completion is when all Work has been completed in accordance with the Contract Documents, including without limitation, completion of the Punchlist, the Contractor's close-out responsibilities under the Contract Documents have been fully performed. Final Completion shall be determined by the Architect, Construction Manager and Project Inspector upon request of the Contractor. The good faith and reasonable determination of Final Completion by the Project Inspector, Construction Manager and Architect shall be controlling and final.

7.2.3.4. Contractor Responsibility for Multiple Inspections. If the Contractor requests determination of Substantial Completion or Final Completion and the Project Inspector, Construction Manager or Architect determine that the Work does not then justify certification of Substantial Completion or Final Completion and re-inspection is required at a subsequent time to make such determination, the Contractor shall be responsible for all costs of such re-inspection, including without limitation, the fees of the Architect, Construction Manager and Project Inspector.

7.2.4. Final Acceptance. Final Acceptance of the Work shall occur upon acceptance of the Work by the District's Board of Trustees; such acceptance shall be submitted for consideration at a regularly scheduled meeting of the District's Board of Trustees after the determination of Final Completion. The commencement of any warranty or guarantee period under the Contract Documents the date of Final Acceptance.

7.3. Construction Schedule.

7.3.1. Submittal of Preliminary Construction Schedule. Within five (5) days following execution of the Agreement, the Contractor shall prepare and submit to the District, Construction Manager and Architect a Preliminary Construction Schedule indicating, in graphic form, the estimated rate of progress and sequence of all Work required under the Contract Documents. As required by the District or Construction Manager, the Construction Schedules shall; (i) be prepared with a commercially available computer software program in a critical path format; (ii) indicate the date(s) for commencement and completion of various portions of the Work including without limitation, procurement, fabrication and delivery of major items, materials or equipment; (iii) identify each Submittal required by the Contract Documents, the date for the Contractor's submission of each Submittal and the date for the return of the reviewed Submittal to the Contractor. Any "float" time (the time between earliest finish date and the latest finish date of an activity shown on the Construction Schedule) incorporated into the Construction Schedules is jointly owned by the District and the Contractor.

7.3.2. Review of Preliminary Construction Schedule. The District and Construction Manager

will review the Preliminary Construction Schedule for conformity with the requirements of the Contract Documents. Comments of the District will be returned to the Contractor with the reviewed Preliminary Construction Schedule.

7.3.3. Accepted Construction Schedule. Within ten (10) days of the District's return of the Preliminary Construction Schedule to the Contractor, the Contractor shall prepare and submit to the District and Construction Manager a revised Construction Schedule incorporating therein the comments to the Preliminary Construction Schedule and submit the same to the District and the Construction Manager for review and acceptance. The review and revision of the Preliminary Construction Schedule shall continue until the District has accepted the entirety of the Construction Schedule, referred to herein as the "Accepted Construction Schedule."

7.3.4. Revisions to Accepted Construction Schedule. If the progress of the Work or the sequencing of the activities of the Work materially differs from that indicated in the Accepted Construction Schedule, as determined by the District in its reasonable discretion and judgment, the District may direct the Contractor to revise the Accepted Construction Schedule; within fifteen (15) days of the District's direction, the Contractor shall prepare and submit to the District and Construction Manager a revised Accepted Construction Schedule for review and acceptance by the District. If a Revised Accepted Construction Schedule is accepted by the District, the Contractor's performance of Work shall conform to such Revised Accepted Construction Schedule.

7.3.5. Updates to Accepted Construction Schedule. The Contractor shall update the Accepted Construction Schedule on a monthly basis, or more frequently as required by the conditions or progress of the Work, or as requested by the District. On or before the fifth (5th) day of each month, the Contractor shall deliver to the District and Construction Manager an updated Accepted Construction Schedule indicating progress achieved and activities commenced or completed in the prior updated Accepted Construction Schedule. If requested by the District, the Contractor shall also submit, with its updated Accepted Construction Schedules a narrative statement describing current and anticipated problem areas of the Work, delaying factors and their impact, and an explanation of corrective action taken or proposed by the Contractor. If the progress of the Work is behind that indicated in the Accepted Construction Schedule, the Contractor's narrative statement shall indicate what measures will be taken to place the Work back on schedule. The Contractor's preparation and submittal of the narrative described above is a material obligation of the Contractor.

7.3.6. Contractor Responsibility for Construction Schedule. The Contractor is responsible for preparation, submittal and maintenance of the Construction Schedules required by the Contract Documents. Failure of the Contractor to do so is the Contractor's default in the performance of a material obligation of the Contractor under Contract Documents. All costs or expenses incurred relating to Construction Schedules shall be solely that of the Contractor without adjustment of the Contract Price.

7.4. Adjustment of Contract Time. If Substantial Completion is delayed, adjustment, if any, to the Contract Time on account of such delay shall be in accordance with this Article 7.4.

7.4.1. Excusable Delays. If Substantial Completion of the Work is delayed by Excusable Delays, the Contract Time shall be subject to adjustment for such reasonable period of time as determined by the Architect; Excusable Delays shall not result in any increase in the Contract Price. Excusable Delays are unforeseeable and unavoidable casualties or causes beyond the control, and without fault or neglect, of the Contractor, or other person directly or indirectly engaged by the Contractor for any portion of the Work, including unanticipated and unavoidable labor disputes, unusual and unanticipated delays in transportation of equipment, materials or Construction Equipment reasonably necessary for completion and proper execution of the Work, unanticipated unusually severe weather conditions or DSA directive to stop the Work which is not the result of the failure of the Contractor to comply with the Contract Documents. The

financial resources of the Contractor or any person or entity directly or indirectly engaged by the Contractor for the Work are not conditions beyond the control of the Contractor. If an Excusable Delay occurs, the Contract Time shall be subject to adjustment hereunder only if the Contractor establishes: (i) full compliance with all applicable provisions of the Contract Documents for Contractor's notice and request for adjustment of the Contract Time; (ii) that the event(s) justifying adjustment of the Contract Time are outside the reasonable control and without any fault or neglect of the Contractor or any person or entity directly or indirectly engaged by the Contractor or a for any portion of the Work; and (iii) that the event(s) justifying adjustment of the Contract Time directly and adversely impacted the progress of the Work on the critical path of the then current Accepted Construction Schedule relative to the date(s) of the claimed event(s) of Excusable Delay. If the Special Conditions set forth a number of "Rain Days" to be anticipated during performance of the Work, the Contract Time shall not be adjusted for rain-related unusually severe weather conditions until the actual number of Rain Days during performance of the Work exceeds those noted in the Special Conditions and such additional Rain Days shall have directly and adversely impacted the progress of the Work on the critical path of the then current Accepted Construction Schedule relative to the date(s) of such additional Rain Days.

7.4.2. Compensable Delays. If Substantial Completion of the Work is delayed by the acts or omissions of the District, the Construction Manager, the Architect, or separate contractor employed by the District (collectively "Compensable Delays"), upon Contractor's request and notice, in strict conformity with Articles 7 and 9 of these General Conditions, the Contract Time will be adjusted for such reasonable period of time as determined by the Construction Manager and District. Pursuant to California Public Contract Code §7102, if the Contractor's progress is delayed by any of the events described in the preceding sentence, Contractor shall not be precluded from the recovery of damages directly and proximately resulting therefrom, provided that the District is liable for the delay, the delay is unreasonable under the circumstances involved and the delay was not within the reasonable contemplation of the District and the Contractor at the time of execution of the Agreement. In such event, Contractor's damages, if any, shall be limited to direct, actual and unavoidable additional costs of labor, materials, equipment or Construction Equipment directly resulting from such delay, and shall exclude indirect or other consequential damages. Except as expressly provided for herein, Contractor shall not have any other claim, demand or right to adjustment of the Contract Price arising out of delay, interruption, hindrance or disruption to the progress of the Work. Adjustments to the Contract Price and the Contract Time, if any, on account of Changes to the Work or Suspension of the Work shall be governed by the applicable provisions of the Contract Documents.

7.4.3. Inexcusable Delays. Inexcusable Delays refer to any delay to the progress of the Work caused by events or factors other than those specifically identified in Articles 7.4.1 and 7.4.2 above. Neither the Contract Price nor the Contract Time shall be adjusted on account of Inexcusable Delays.

- 7.5. Liquidated Damages. If the Contractor fails to: (i) submit Submittals in accordance with the Accepted Construction Schedule or in a timely manner; (ii) achieve Substantial Completion of the Work within the Contract Time, (subject to adjustments authorized under the Contract Documents); or (iii) complete Punchlist items within the time established, the Contractor shall be liable to the District for per diem Liquidated Damages set forth in the Special Conditions, not as a penalty but as Liquidated Damages which are agreed upon because of the difficulty of fixing the District's actual damages. The Contractor and the District agree that said amounts are reasonable estimates of the District's damages in such event, and that such amounts do not constitute a penalty. The Contractor and the Surety shall be jointly and severally liable to the District for any Liquidated Damages liability of the Contractor exceeding the Contract Price then held or retained by the District. The Contractor and the District acknowledge and agree

that the provisions of this Article 7.5 are reasonable under the circumstances existing at the time of the Contractor's execution of the Agreement.

8. Contract Price

8.1. Cost Breakdown of Contract Price. Within fifteen (15) days of the execution of the Agreement by Contractor, Contractor shall furnish, on forms provided by the District, a detailed estimate and complete Cost Breakdown of the Contract Price. The Cost Breakdown shall be subject to the District's review and acceptance of the content thereof. If the District objects to any portion of the Cost Breakdown, within five (5) days of the Contractor's receipt of the District's written objection(s), Contractor shall submit a revised Cost Breakdown to the District for review and acceptance. The foregoing procedure shall continue until the District has accepted of the entirety of the Cost Breakdown. The Cost Breakdown accepted by the District shall not be modified by the Contractor without the prior consent of the District, which may be granted, conditioned or denied in the sole discretion of the District.

8.2. Progress Payments.

8.2.1. Applications for Progress Payments ("Payment Applications"). During performance of the Work, the Contractor shall submit monthly Payment Applications, on the first (1st) working day of each month, to the Construction Manager, Project Inspector and Architect, on forms approved by the District, setting forth an itemized estimate of Work completed in the preceding month for the purpose of the District's making of Progress Payments thereon. Values utilized in Payment Applications shall be based upon the District accepted Cost Breakdown.

8.2.2. District's Review of Payment Applications. In accordance with Public Contract Code §20104.50, upon receipt of a Payment Application, the District shall cause the same to be reviewed by the Project Inspector, Construction Manager and Architect, as soon as is practicable, for the purpose of determining that the Payment Application is a proper Payment Application. A Payment Application is "proper" only if it is submitted on the form approved by the District, with all of the information completely and accurately provided and such completed Payment Application is accompanied by: (i) the form of Verification of Certified Payroll Records Submittal to Labor Commissioner, executed under penalty of perjury by the Contractor's Superintendent and/or the Contractor PM; which verifies that all Certified Payroll Records for the Contractor and all Subcontractors for the period of time covered by the Application for Progress Payment have been completed and submitted in strict conformity with Labor Code §1771.4; (ii) a breakdown identifying each Subcontractor/Material Supplier to be disbursed a portion of the requested Progress Payment and the amount of the Progress Payment to be disbursed to each Subcontractor/Material Supplier so identified; (iii) duly completed and executed forms of Conditional Waiver and Release of Rights Upon Progress Payment in accordance with California Civil Code §8132 of the Contractor, all Subcontractors and Material Suppliers covering the Progress Payment requested; (iv) duly completed and executed forms of Unconditional Waiver and Release of Rights upon Progress Payment in accordance with California Civil Code §8134 of the Contractor, Subcontractors and Material Suppliers covering the Progress Payment received by the Contractor under the prior Payment Application; and (v) a certification by the Contractor that it has continuously maintained the Record Drawings. Submittal of all of the foregoing is an express condition precedent to the District's obligation to disburse any Progress Payment. If a Payment Application is determined by the District not to be a "proper" Payment Application, the Payment Application will be returned by the District to the Contractor (along with a written document setting forth the reason(s) why the Payment Application is not proper) as soon as is practicable after receipt of the same from the Contractor, but in no event not more than seven (7) days after the District's receipt thereof.

8.2.3. Review of Payment Applications. Upon receipt of Payment Application, the Architect, Construction Manager and Project Inspector shall inspect and verify the Work to determine

whether it has been performed in accordance with the terms of the Contract Documents and to determine the portion of the Payment Application which is properly due to the Contractor under the terms of the Contract Documents.

8.3. District's Disbursement of Progress Payments.

8.3.1. Timely Disbursement of Progress Payments. In accordance with Public Contract Code §20104.50, within thirty (30) days after the District's receipt of a proper Payment Application, the District will pay the Contractor ninety five percent (95%) of the value of the Work indicated in the Payment Application which is actually in place as of the date of the Payment Application and as verified and approved by the Project Inspector, Construction Manager and Architect, along with the pro rata portion of the Contractor's overhead, supervision and general conditions costs and profit for that month; provided, however, that the District's obligation to disburse any Progress Payment shall be subject to the Contractor's submission of a "proper" Payment Application as defined hereinabove. If a Payment Application is not "proper" due to the failure or refusal of the Contractor to comply with conditions precedent to the District's obligation to disburse a Progress Payment, or incompleteness or inaccuracies in any such documents submitted, the thirty (30) day period for the District's timely disbursement of a Progress Payment shall commence on the date that the District is actually in receipt of documents not submitted with the Payment Application, or corrections to documents with the Payment Application so as to render them complete and accurate.

8.3.2. Untimely Disbursement of Progress Payments. Pursuant to Public Contract Code §20104.50, if the District fails to make any Progress Payment within thirty (30) days after receipt of an undisputed and proper Payment Application, the District shall pay the Contractor interest on the undisputed amount of such Payment Application equal to the legal rate of interest set forth in California Code of Civil Procedure §685.010(a).

8.3.3. District's Right to Disburse Progress Payments by Joint Checks. The District may in its sole discretion issue joint checks to the Contractor and Subcontractors or Material Suppliers in satisfaction of its obligation to make Progress Payments or the Final Payment due hereunder. The Contractor shall cooperate with the District and subcontractors/Material Suppliers in the issuance or processing of joint checks.

8.3.4. No Waiver of Defective or Non-Conforming Work. The approval of any Payment Application or the disbursement of any Progress Payment to the Contractor shall not be deemed nor constitute acceptance of Defective or Non-Conforming Work.

8.3.5. Progress Payments for Changed Work. The Contractor's Payment Applications may include requests for payment for Changes which have been authorized and approved by the District, Construction Manager, Project Inspector, Architect and all other governmental agencies with jurisdiction over such Change. Except as provided for herein, no other payment shall be made by the District for Changes.

8.3.6. Materials or Equipment Not Incorporated Into the Work. No Progress Payments will be made for materials or equipment not incorporated into the Work at the time a Payment Application is submitted.

8.3.7. Title to Work. The Contractor warrants that title to all Work covered by a Payment Application will pass to the District no later than the time of payment.

8.4. Substitute Security for Retention. Eligible and equivalent securities may be substituted for Retention at the request and expense of the Contractor pursuant to California Public Contract Code §22300. The foregoing and the provisions of California Public Contract Code §22300 notwithstanding, failure of the Contractor to request substitution of eligible and equivalent securities for Retention prior to the Contractor's submission of the first Payment Application is the Contractor's waiver of rights under Public Contract Code §22300.

8.5. Final Payment.

8.5.1. Application for Final Payment. When the Contractor has achieved Final Completion of the Work and has otherwise fully performed its obligations under the Contract Documents, the Contractor shall submit an Application for Final Payment on such form as approved by the District. Thereupon, the Architect, Construction Manager and Project Inspector will promptly make a final inspection of the Work and when the Architect, Construction Manager and Project Inspector find the Work acceptable under the Contract Documents and that the Contractor has completed all other obligations of the Contractor, the Architect, Construction Manager and Project Inspector will approve the Application for Final Payment, stating that to the best their knowledge, information and belief, the Work has been completed in accordance with the Contract Documents and that the Contractor is entitled to receipt of Final Payment. The Final Payment shall include the remaining balance of the Contract Price and Retention previously withheld by the District, less offsets and deductions thereto.

8.5.2. Conditions Precedent to Disbursement of Final Payment. Submittal of the following are express conditions precedent to the District's obligation to disburse the Final Payment: (i) duly completed and executed forms of Conditional or Unconditional Waivers and Releases of rights upon Final Payment of the Contractor, Subcontractors of any tier and Material Suppliers in accordance with California Civil Code §§8136 or 8138, with each of the same stating that there are, or will be, no claims for additional compensation after disbursement of the Final Payment; (ii) Operations and Maintenance manuals and separate warranties provided by any manufacturer or distributor of any materials or equipment incorporated into the Work; (iii) the Record Drawings; (iv) the form of Guarantee included in the Contract Documents duly executed by an authorized representative of the Contractor; (v) all other items or documents required by the Contract Documents to be delivered to the District upon completion of the Work; and (vi) written evidence of the Contractor's filing of the DSA Final Verified Report.

8.5.3. Disbursement of Final Payment. Provided that the District is then in receipt of all materials set forth in Article 8.5.2 above as conditions precedent to the District's obligation to disburse Final Payment, not later than sixty (60) days following Final Acceptance, the District shall disburse the Final Payment to the Contractor. Pursuant to California Public Contract Code §7107, if there is any dispute between the District and the Contractor at the time that disbursement of the Final Payment is due, the District may withhold from disbursement of the Final Payment an amount not to exceed one hundred fifty percent (150%) of the amount in dispute. If the Contractor complies with all of the conditions precedent to the District's disbursement of the Final Payment, except for written evidence of the Contractor's filing of the DSA Final Verified Report, the District may withhold and retain ten percent (10%) of the Final Payment in accordance with Article 4.22.2 of these General Conditions. In such event, provided that the Contractor has fully complied with and satisfied all other conditions precedent set forth in Article 8.5.2, the District will disburse the remaining balance of the Final Payment to the Contractor; such disbursement shall constitute the District's full and complete performance of payment obligations to the Contractor hereunder.

8.5.4. Waiver of Claims. The Contractor's acceptance of the Final Payment is a waiver and release by the Contractor of any and all claims against the District for compensation or otherwise in connection with the Contractor's performance of the Contract.

8.5.5. Claims Asserted After Final Payment. Any stop payment notice or other claim filed or asserted after the Contractor's acceptance of the Final Payment by any Subcontractor, Material Supplier or others in connection with or for Work is the sole and exclusive responsibility of the Contractor who shall indemnify, defend and hold harmless the Indemnified Parties from and against any claims, demands or judgments arising or associated therewith, including without limitation attorneys' fees.

8.6. Withholding of Payments. The District may withhold and retain the Contract Price, in whole or

in part, on account of: (i) uncorrected Defective or Non-Conforming Work; (ii) failure of the Contractor to make payments when due laborers, Subcontractors or Material Suppliers; (iii) claims filed or reasonable evidence of the probable filing of claims by Subcontractors, laborers, Material Suppliers, or others performing any portion of the Work under the Contract Documents for which the District may be liable or responsible including, without limitation, Stop Notice Claims; (iv) reasonable doubt that the Contract can be completed for the then unpaid balance of the Contract Price; (v) tax demands filed in accordance with California Government Code §12419.4; (vi) other claims, penalties and/or forfeitures for which the District is required or authorized to retain funds otherwise due the Contractor, including any amounts due from the Contractor to the District under the Contract Documents; or (vii) the Contractor's failure to perform any of its obligations under the Contract Documents, its default under the Contract Documents or its failure to maintain adequate progress of the Work. In addition to the foregoing, the District shall not be obligated to process any Application for Progress Payment or Final Payment, nor shall Contractor be entitled to any Progress Payment or Final Payment so long as any lawful or proper direction concerning the Work or the performance thereof or any portion thereof, given by the District, the Construction Manager, Project Inspector, Architect or any public authority having jurisdiction over the Work, or any portion thereof, shall not be fully and completely complied with by the Contractor. When the District is reasonably satisfied that the Contractor has remedied any such deficiency, payment shall be made of the amount withheld. The foregoing notwithstanding, if the District withholds: (i) ten percent (10%) of the Final Payment pursuant to Articles 4.22.2 and 8.5.3 of these General Conditions; or (ii) any amount incurred to complete an obligation of the Contractor hereunder, the Contractor shall not be entitled to receipt or payment of any portion of such withholdings.

- 8.7. Payments to Subcontractors. The Contractor shall pay all Subcontractors on account of Work performed by Subcontractors in accordance with the terms of their respective subcontracts and pursuant to Business & Professions Code §7108.5 and Public Contract Code §7201.

9. Changes

- 9.1. Changes to the Work. The District, at any time, by written order, may make Changes within the general scope of the Work or issue additional instructions, require additional Work or direct deletion of Work. The Contractor shall not proceed with any Change without prior written authorization from the District. The Contractor shall promptly commence and diligently complete any District authorized Change; the Contractor shall not be relieved or excused from its prompt commencement and diligent completion of any Change authorized by the District due to the inability of the Contractor and the District to agree upon the adjustment to the Contract Time or the Contract Price on account of such Change. The issuance of a Change Order in connection with any Change authorized by the District is not a condition precedent to Contractor's obligation to promptly commence and diligently complete any Change authorized by the District hereunder. The District's right to make Changes shall not invalidate the Contract nor relieve the Contractor of its obligations under the Contract Documents. Any requirement of notice of Changes to the Surety shall be the responsibility of the Contractor. Changes shall be subject to DSA approval.
- 9.2. Oral Order of Change in the Work. Any oral order, direction, instruction, interpretation, or determination (collectively "Instruction Order") from the District, Construction Manager, Project Inspector or Architect which Contractor believes is a change to the Work, or requires an adjustment to the Contract Price or the Contract Time, shall be treated as a Change only if the Contractor gives the Architect, Construction Manager and Project Inspector written notice within ten (10) days of the Instruction Order and prior to acting in accordance therewith. Time is of the essence in Contractor's written notice pursuant to the preceding sentence and the

Contractor acknowledges that its failure to give written notice within ten (10) days of the date of an Instruction Order is deemed Contractor's waiver of any right to adjustment of the Contract Time or the Contract Price on account of such Instruction Order. The written notice shall state the date, circumstances, extent of adjustment to the Contract Price or the Contract Time, if any, requested, and the source of the Instruction Order that the Contractor regards as a Change. Unless the Contractor acts in strict accordance with this procedure, no Instruction Order shall not be treated as a Change and the Contractor waives any adjustment to the Contract Price or the Contract Time on account thereof.

- 9.3. Contractor Submittal of Data. Within thirty (30) days after receipt of a written order directing a Change or furnishing the written notice regarding any Instruction Order, the Contractor shall submit to the Architect, Project Inspector, Construction Manager and District a detailed written statement setting forth the general nature of the Change, the amount of any adjustment to the Contract Price on account thereof, properly itemized and supported by sufficient substantiating data to permit evaluation of the same, and the extent of adjustment of the Contract Time, if any, required by such Change. No claim or adjustment to the Contract Price or the Contract Time shall be allowed if not asserted by the Contractor in strict conformity herewith or if asserted after Final Payment is made.
- 9.4. Adjustment to Contract Price on Account of Changes to the Work. Adjustments to the Contract Price due to Changes in the Work shall be determined by application of one of the following methods, in the following order of priority:
- 9.4.1. Mutual Agreement. By negotiation and mutual agreement, on a lump sum basis, between the District and the Contractor on the basis of the estimate of the actual and direct increase or decrease in costs on account of the Change. Upon request of the District or the Architect, the Contractor shall provide a detailed estimate of increase or decrease in costs directly associated with performance of the Change along with cost breakdowns of the components of the Change and supporting data and documentation.
- 9.4.2. Determination by the District. By the District, whether or not negotiations are initiated pursuant to Article 9.4.1 above, based upon actual and necessary costs incurred by the Contractor as determined by the District. If the procedure set forth in this Article 9.4.2 is utilized to determine the extent of adjustment to the Contract Price on account of Changes to the Work, promptly upon determining the extent of adjustment to the Contract Price, the District shall notify the Contractor in writing of the same; the Contractor shall be deemed to have accepted the District's determination of the amount of adjustment to the Contract Price on account of a Change to the Work unless Contractor shall notify the District, Architect and Construction Manager, in writing, not more than fifteen (15) days from the date of the District's written notice, of any objection to the District's determination. Failure of the Contractor to timely notify the District, Architect and Construction Manager of Contractor's objections to the District's determination of the Contract Price adjustment is deemed Contractor's acceptance of the District's determination and a waiver of any right of the Contractor to thereafter protest or otherwise object to the District's determination. Notwithstanding any objection of the Contractor to the District's determination of the adjustment to the Contract Price pursuant to this Article 9.4.2, Contractor shall promptly commence and diligently complete any such Change.
- 9.4.3. Basis for Adjustment of Contract Price. If Changes in the Work require an adjustment of the Contract Price pursuant to Articles 9.4.1 or 9.4.2 above, the basis for adjustment of the Contract Price shall be as follows:
- 9.4.3.1. Labor. The Contractor shall be compensated for the costs of field labor actually and directly utilized in the performance of the Change. Labor costs shall be limited to field labor for labor classification(s) necessary to perform the Change. Use of a labor classification which increases labor costs associated with any Change shall

not be permitted. Labor costs shall exclude costs incurred by the Contractor in preparing estimate(s) of the costs of the Change, in the maintenance of records relating to the costs of the Change, coordination and assembly of materials and information relating to the Change or performance thereof, or the supervision and other overhead and general conditions costs associated with the Change or performance thereof.

9.4.3.2. Materials and Equipment. Contractor shall be compensated for the costs of materials and equipment necessarily and actually used or consumed in connection with the performance of Changes. Costs shall be the then lowest wholesale price at which identical or similar materials/equipment are available in the quantities required to perform the Change. The District may furnish materials and/or equipment for Changes, in which event the Contractor shall not be compensated for any mark-up thereon.

9.4.3.3. Construction Equipment. The Contractor shall be compensated for the actual cost of the necessary and direct use of Construction Equipment in the performance of Changes in increments of fifteen (15) minutes. No costs or compensation shall be allowed for time while Construction Equipment is inoperative, idle or on standby, for any reason. The Contractor shall not be entitled to compensation for Construction Equipment or tools used for Changes with a replacement value of \$500.00 or less. Construction Equipment costs shall not exceed rental rates established by construction equipment rental agencies in the locality of the Site. The allowable rate for Construction Equipment includes compensation for rental costs, fuel, power, oil, lubrication, supplies, necessary attachments, repairs or maintenance of any kind, depreciation, storage, insurance, labor (exclusive of labor costs of the Construction Equipment operator), and any all other costs incidental to the use of such Construction Equipment.

9.4.4. Mark-up on Costs of Changes to the Work. The allowance for mark-ups on the costs of the Change for all overhead (including home office, supervision and field overhead costs, including personnel costs; labor burdens on personnel costs; insurance premiums), general conditions costs and profit associated with the Change shall not exceed the percentage set forth in the Special Conditions, regardless of the number of Subcontractors performing any portion of any Change. If a Change reduces the Contract Price, no profit, general conditions or overhead costs shall be paid by the District to the Contractor for the reduced or deleted Work; the Contract Price shall be reduced by the actual cost for the reduced or deleted Work multiplied by the percentage set forth in the Special Conditions for mark-ups on the cost of a Change adding to the scope of the Work.

9.4.5. Contractor Maintenance of Records. If the Contractor is directed to perform any Change pursuant to Article 9.1 or 9.2, the Contractor shall maintain detailed separate records on a daily basis for each separate Change. Such records shall include without limitation hourly records for labor and Construction Equipment and itemized records of materials and equipment used that day in connection with any Change to the Work. Subcontractors shall maintain records in accordance with this Article. Each daily record maintained hereunder shall be signed by Contractor's Superintendent/Subcontractor's Superintendent and shall incorporate a statement that all information contained therein is true, accurate, complete and relates only to the Change referenced therein. All records maintained hereunder shall be subject to inspection, review and/or reproduction by the District, Architect, Construction Manager or Project Inspector upon request. If the Contractor fails or refuses, for any reason, to maintain or make available for inspection, review and/or reproduction such records and the adjustment to the Contract Price on account of any Change to the Work is determined by the District, the District's reasonable good faith determination of the adjustment to the Contract Price on account of such Change shall be final, conclusive and binding upon the Contractor. The Contractor's obligation to

maintain records hereunder is in addition to, and not in lieu of, other Contractor obligations relating to Changes to the Work.

- 9.5. Adjustment to Contract Time. If any Change(s) are authorized by the District, the Contract Time shall be extended or reduced by Change Order for a period of time commensurate with the time reasonably necessary to perform such Change
- 9.6. Addition or Deletion of Alternate Bid Item(s). If the Bid for the Work includes proposal(s) for Alternate Bid Item(s), during performance of the Work, the District may elect, to add any such Alternate Bid Item(s) if the same did not form a basis for award of the Contract or delete any such Alternate Bid Item(s) if they formed a basis for award of the Contract. If the District elects to add or delete any such Alternate Bid Item(s) pursuant to the foregoing, the cost or credit for such Alternate Bid Item(s) shall be as set forth in the Contractor's Bid. If any Alternate Bid Item is added or deleted pursuant to the foregoing, the Contract Time shall be adjusted by the number of days allocated for the added or deleted Alternate Bid Item in the Contract Documents; if days are not allocated for any Alternate Bid Item added or deleted pursuant to the foregoing, the Contract Time shall be equitably adjusted.
- 9.7. Change Orders. If the District approves of a Change, a written Change Order prepared by the Architect on behalf of the District shall be forwarded to the Contractor describing the Change and setting forth the adjustment to the Contract Time and the Contract Price, if any, on account of such Change. All Change Orders shall: (i) be deemed full payment and final settlement of all claims for direct, indirect and consequential costs, including without limitation, costs of delays or impacts related to, or arising out of, items covered and affected by the Change Order; (ii) incorporate adjustments to the Contract Time; and (iii) constitute the Contractor's waiver of rights of rights under Civil Code §1542. Any claim or item relating to any Change incorporated into a Change Order not presented by the Contractor for inclusion in the Change Order shall be deemed waived. The Contractor shall execute the Change Order prepared pursuant to the foregoing; once the Change Order has been prepared and forwarded to the Contractor for execution. The Contractor shall not modify or amend the form or content of such Change Order, or any portion thereof; attempted or purported modifications or amendments are not binding upon the District and are null, void and unenforceable. Change Orders shall be binding upon the District only upon action of the District's Board of Trustees approving and ratifying such Change Order.
- 9.8. Unilateral Change Order. A Unilateral Change Order is a written Change Order issued by or on behalf of the District before the Contractor and District have agreed on the extent of adjustment of the Contract Time or the Contract Price relating to the Change reflected in a Unilateral Change Order. A Unilateral Change Order shall describe the scope and nature of the Change and set forth the adjustment to the Contract Time and Contract Price, if any. The District shall forward to the Contractor a copy of the Unilateral Change Order (for information only) at least five (5) days prior to the Board of Trustees' review and consideration of the Unilateral Change Order. Any Unilateral Change Order issued hereunder shall be binding upon the District and Contractor upon action of the District's Board of Trustees to ratify or approve such Unilateral Change Order. The objections, if any, of the Contractor to the extent of adjustment of the Contract Time or the Contract Price on account of the Change(s) incorporated into a Unilateral Change Order shall be submitted in writing by the Contractor to the District, Construction Manager and Architect not more than fifteen (15) days after the date of the District's Board of Trustees action to approve or ratify a Unilateral Change Order. The absence of the Contractor's written objections to a Unilateral Change Order within the time set forth above shall be deemed the Contractor's acceptance of the Contract Time and/or Contract

Price adjustment set forth in a Unilateral Change Order for the Changes described therein and the Contractor shall be deemed to have knowingly waived any right to seek additional adjustments of the Contract Time or the Contract Price on account of Change(s) incorporated into such a Unilateral Change Order.

- 9.9. Construction Change Directive. A Construction Change Directive is a written instrument issued by or on behalf of the District directing a Change to the Work prior to the Contractor and District reaching full agreement on an adjustment of the Contract Time and/or Contract Price on account of such Change. The Contractor shall promptly commence and diligently complete any Change to the Work subject to a Construction Change Directive issued hereunder. The issuance of a Change Order in connection with any Construction Change Directive is not a condition precedent to Contractor's obligation to promptly commence and diligently complete a Construction Change Directive. Upon completion of a Construction Change Directive, if the Contractor and District have not agreed on the adjustment of Contract Time and/or Contract Price, the District shall issue a Unilateral Change Order for such Construction Change Directive.
- 9.10. Contractor Notice of Changes. If the Contractor claims that any instruction, request, the Drawings, the Specifications, action, condition, omission, default, or other situation obligates the District to increase the Contract Price or to extend the Contract Time ("Potential Changes"), the Contractor shall notify the Project Inspector, Construction Manager and Architect, in writing, of such claim within ten (10) days from the date of its actual or constructive notice of the factual basis supporting the Potential Changes. The District shall consider any such claim of the Contractor only if sufficient supporting documentation is submitted with the Contractor's notice to the Construction Manager, Project Inspector and Architect. Time is of the essence in Contractor's written notice pursuant to the preceding so that the District can promptly investigate and consider alternative measures to the address such Potential Changes. Accordingly, Contractor acknowledges that its failure, for any reason, to give written notice (with sufficient supporting documentation to permit the District's review and evaluation) within ten (10) days of its actual or constructive knowledge of any Potential Changes shall be deemed Contractor's waiver, release, discharge and relinquishment of any right to assert or claim any entitlement to an adjustment of the Contract Time or the Contract Price on account of any such Potential Changes.
- 9.11. Disputed Changes. If any dispute or disagreement between the Contractor and the District or the Architect regarding the characterization of any item as a Change or as to the appropriate adjustment of the Contract Price or the Contract Time on account thereof, the Contractor shall promptly proceed with the performance, subject to a subsequent resolution of such dispute or disagreement in accordance with the terms of the Contract Documents.
- 9.12. Minor Changes in the Work. The Architect may order minor Changes in the Work not involving an adjustment in the Contract Price or the Contract Time and not inconsistent with the intent of the Contract Documents. Such Changes shall be effected by written order and shall be binding on the District and the Contractor.
- 9.13. Unauthorized Changes. Any Work beyond the lines and grades shown on the Contract Documents, or any extra Work performed or provided by the Contractor without notice in strict conformity with the Contract Documents shall be considered unauthorized and at the sole expense of the Contractor. Work so done will not be measured or paid for, no extension to the Contract Time will be granted on account thereof and any such Work may be ordered removed at the Contractor's sole cost and expense.

10. Separate Contractors

- 10.1. District's Right to Award Separate Contracts. The District reserves the right to perform construction or operations related to the Work with the District's own forces or to award separate contracts in connection with other portions of the Project or other construction or operations at or about the Site. If the Contractor claims that delay or additional cost is involved because of such action by the District, the Contractor shall seek an adjustment to the Contract Price or the Contract Time as provided for in the Contract Documents. Failure of the Contractor to request such an adjustment in strict conformity with the Contract Documents shall be deemed a waiver of the same.
- 10.2. District's Coordination of Separate Contractors. The District shall coordinate the activities of the District's own forces and separate contractor(s) 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 respective Construction Schedules when directed to do so. The Contractor shall make any revisions to the Accepted Construction Schedule deemed necessary after a joint review and mutual agreement. The Construction Schedules shall then constitute the Construction Schedules to be used by the Contractor, separate contractors and the District until subsequently revised.
- 10.3. Mutual Responsibility. The Contractor shall afford the District and separate contractors of the District with a reasonable opportunity for storage of their materials and equipment and performance of their activities at the Site.
- 10.4. Discrepancies or Defects. If any part of the Work depends for proper execution or results upon construction or operations by the District or a separate contractor to the District, the Contractor shall, prior to proceeding with that portion of the Work, promptly report to the Architect, Construction Manager and Project Inspector any discrepancies or defects in such other construction that renders it unsuitable for such proper execution and results.

11. Tests; Inspections; Observations

- 11.1. Contractor's Notice. If the Contract Documents, Laws or any public authority with jurisdiction over the Work require the Work, or any portion thereof, to be specially tested, inspected or approved, the Contractor shall give the Architect, Construction Manager and Project Inspector written notice of the readiness of such Work for observation, testing or inspection at least two (2) working days prior to the time for the conducting of such test, inspection or observation. If any portion of the Work subject to tests, inspection or approval is covered up by Contractor prior to completion and satisfaction of the requirements of such tests, inspection or approval, Contractor shall be responsible for the uncovering of such portion of the Work as is necessary for performing such tests, inspection or approval without adjustment of the Contract Price or the Contract Time.
- 11.2. Cost of Tests and Inspections. The District will pay for fees, costs and expenses for the initial tests/inspections of materials/equipment which are conducted at the Site or locations within a one hundred (100) mile radius of the Site. All fees, costs or expenses for subsequent tests/inspections or for tests/inspections conducted at a location more than a one hundred (100) mile radius from the Site (including without limitation, travel and travel-related expenses) shall be borne solely and exclusively by the Contractor.
- 11.3. Testing/Inspection Laboratory. The District shall select duly qualified person(s) or testing laboratory(ies) to conduct the tests and inspections to be paid for by the District and required

by the Contract Documents or the Laws. Tests and inspections required of the Work shall be as set forth in the Contract Documents and as required by the Laws, including without limitation, Title 24 of the California Code of Regulations. Test/inspection standards shall be as set forth in the Contract Documents or established by the Laws. Where inspection or testing is to be conducted by an independent laboratory or testing agency, materials or samples thereof shall be selected by the laboratory, testing agency, the Project Inspector, Construction Manager or Architect and not by the Contractor.

- 11.4. Additional Tests, Inspections and Approvals. If the Architect, Construction Manager, Project Inspector or public authorities having jurisdiction over any portion of the Work require additional testing, inspection or approval, the Architect, Project Inspector or Construction Manager will instruct the Contractor to make arrangements for such additional testing, inspection or approval by an entity acceptable to the District, and the Contractor shall give timely notice to the Architect, Construction Manager and Project Inspector of when and where tests and inspections are to be made so the Construction Manager, Project Inspector and Architect may observe such procedures. The District shall bear the costs of such additional tests, inspections or approvals, except to the extent that such additional tests, inspections or approvals reveal any failure of the Work to comply with the requirements of the Contract Documents, in which case the Contractor shall bear all costs made necessary by such failures, including without limitation, the costs of corrections, repeat tests, inspections or approvals and the costs of the services, the Architect or its consultants, the Construction Manager and Project Inspector in connection therewith.
- 11.5. Delivery of Certificates. Required certificates of testing, inspection or approval shall, unless otherwise required by the Contract Documents, be secured by the Contractor and promptly delivered to the Architect, Project Inspector and Construction Manager.
- 11.6. Timeliness of Tests, Inspections and Approvals. Tests or inspections required and conducted pursuant to the Contract Documents shall be made or arranged by Contractor to avoid delay in the progress of the Work. The Contractor shall be liable for delays to completion of the Work if the Contractor fails coordinate and timely schedule required tests, inspections or observations of the Work.

12. Uncovering and Correction of Work

- 12.1. Uncovering of Work. If any portion of the Work is covered contrary to the request of the Architect, Construction Manager, Project Inspector or the requirements of the Contract Documents, it must, if required by the Architect, Construction Manager or Project Inspector, be uncovered for observation by the Architect, Project Inspector and/or the Construction Manager and be replaced at the Contractor's expense without adjustment of the Contract Time or the Contract Price.
- 12.2. Rejection of Work. Defective or Non-Conforming Work may be rejected by the District, Construction Manager, Architect or Project Inspector. The Contractor shall correct such rejected Work without adjustment to the Contract Price or the Contract Time, even if the Work, materials or equipment have been previously inspected by the Architect or the Project Inspector or even if they failed to observe the Defective or Non-conforming Work.
- 12.3. Correction of Work. The Contractor shall promptly correct any portion of the Work rejected by the District, Construction Manager, Architect or Project Inspector as Defective or Non-Conforming Work, whether observed before or after Substantial Completion and whether or not fabricated, installed or completed. The Contractor shall bear all costs of correcting such

rejected Work, including additional testing and inspections and compensation for the Architect's services and expenses made necessary thereby. The Contractor shall bear all costs of correcting destroyed or damaged Work, whether completed or partially completed.

- 12.4. Removal of Non-Conforming or Defective Work. The Contractor shall, at its sole cost and expense, remove from the Site all portions of the Work which are defective or are not in accordance with the requirements of the Contract Documents which are neither corrected by the Contractor nor accepted by the District.
- 12.5. Failure of Contractor to Correct Work. If the Contractor fails to commence to correct Defective or Non-Conforming Work within three (3) days of notice of such condition and promptly thereafter complete the same within a reasonable time, the District may correct it in accordance with the Contract Documents and at the expense of the Contractor.
- 12.6. Acceptance of Defective or Non-Conforming Work. The District may, in its sole and exclusive discretion, elect to accept Defective or Non-Conforming Work instead of requiring its removal and correction, in which case the Contract Price shall be equitably reduced.

13. Warranties

- 13.1. Workmanship and Materials. The Contractor warrants to the District that: (i) all materials and equipment furnished under the Contract Documents are new, of good quality and of the most suitable grade and quality for the purpose intended, unless otherwise specified in the Contract Documents; and (ii) all Work and workmanship is of good quality, free from faults and defects and in conformity with the requirements of the Contract Documents. If required by the Architect or the District, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment incorporated into the Work. Any Work, or portion thereof not conforming to these requirements, including substitutions or alternatives not properly approved in accordance with the Contract Documents may be deemed Defective or Non-Conforming Work and subject to repair, replacement or other remedial action by the Contractor to render such work in accordance the Contract Documents. The Contractor expressly warrants the merchantability, the fitness for use, and quality of all Work; such warranty of the Contractor in addition, and not in lieu of, any warranty given by the manufacturer or supplier of such item.
- 13.2. Warranty Work. If, within one (1) year after the date of Final Acceptance, or such other time frame set forth elsewhere in the Contract Documents, any Work is Defective, Non-Conforming, not in accordance with the requirements of the Contract Documents, or otherwise contrary to the warranties contained in the Contract Documents, the Contractor shall commence all necessary corrective action within seven (7) days after receipt of a written notice from the District to do so, and to thereafter diligently complete the same. If the Contractor fails or refuses to commence correction of any such item within said seven (7) day period or to diligently prosecute such corrective actions to completion, the District may, without further notice to Contractor, the District may, in the sole discretion of the District: (i) cause such corrective Work to be performed and completed; or (ii) upon notice and demand to the Performance Bond Surety, require the Surety to complete corrective work. If the District elects to complete corrective work under (i) above, the Contractor and the Performance Bond Surety shall be responsible for all costs in connection with such corrective Work, including without limitation, general administrative overhead costs of the District in securing and overseeing such corrective Work. The obligations of the Contractor hereunder are in addition to, and not in lieu of, any other obligations imposed by any special guarantee or warranty required by the Contract Documents, guarantees or warranties provided by any manufacturer of any item incorporated into the Work, or otherwise recognized, prescribed or imposed by the Laws.

Neither the District's Final Acceptance, the making of Final Payment, nor the use or occupancy of the Work, in whole or in part, by District shall nor relieve the Contractor or the Contractor's Performance Bond Surety from liability with respect to any warranties or responsibility for faulty or defective Work or materials, equipment and workmanship incorporated therein.

- 13.3. Guarantee. Upon completion of the Work, Contractor shall execute and deliver to the District the form of Guarantee included within the Contract Documents. The Contractor's execution and delivery of the form of Guarantee is an express condition precedent to any obligation of the District to disburse the Final Payment to the Contractor.
- 13.4. Survival of Warranties. The Contractor's warranty and guaranty obligations hereunder shall survive the Contractor's completion of Work under the Contract Documents, the District's Final Acceptance or the termination of the Contract.

14. Suspension of Work

- 14.1. District's Right to Suspend Work. The District may, without cause, and without invalidating or terminating the Contract, order the Contractor, in writing, to suspend, delay or interrupt the Work in whole or in part for such period of time as the District may determine. The Contractor shall resume and complete the Work suspended by the District in accordance with the District's directive, whether issued at the time of the directive suspending the Work or subsequent thereto.
- 14.2. Adjustments to Contract Price and Contract Time. If the District directs suspension of the Work, an adjustment shall be made to the Contract Price for increases in the direct cost of performance of the Work of the Contract Documents, actually caused by suspension, delay or interruption ordered by the District; provided however that no adjustment of the Contract Price shall be made to the extent: (i) that performance is, was or would have been so suspended, delayed or interrupted by another cause for which the Contractor is responsible; or (ii) that an equitable adjustment is made or denied under another provision of the Contract Documents. The foregoing notwithstanding, any such adjustment of the Contract Price shall not include any adjustment to increase the Contractor's overhead, general administrative costs or profit, all of which will remain as reflected in the Cost Breakdown submitted by the Contractor pursuant to the Contract Documents. If the District directs suspension of the Work, the Contract Time shall be equitably adjusted to reflect the duration of the District's suspension of the Work.

15. Termination

15.1. Termination for Cause.

15.1.1. District's Right to Terminate. The District may terminate the Contract upon the occurrence of any one or more of the following events of the Contractor's default: (i) the Contractor refuses or fails to prosecute the Work with diligence to achieve Substantial Completion of the Work within the Contract Time; (ii) the Contractor fails to achieve Substantial Completion of the Work within the Contract Time; (iii) the Contractor becomes bankrupt or insolvent, or makes a general assignment for the benefit of creditors, or if the Contractor or a third party files a petition to reorganize or for protection under any bankruptcy or similar laws; (iv) the Contractor repeatedly fails to supply sufficient skilled workmen or sufficient quantities of suitable materials or equipment; (v) the Contractor repeatedly fails to make payments to any Subcontractor, Material Suppliers or others for labor, materials or equipment furnished in connection with the Work; (vi) the Contractor disregards the Laws or other requirements of any public entity having jurisdiction over the Work; (vii) the Contractor disregards proper directives of the Architect, Construction Manager, Project Inspector or District; (viii) the Contractor performs Work which deviates from requirements of the Contract Documents and fails or

refuses to correct such Work; or (ix) the Contractor otherwise violates in any material way any provisions or requirements of the Contract Documents. Once the District determines that sufficient cause exists to justify the action, the District may terminate the Contract without prejudice to any other right or remedy the District may have, after giving the Contractor and the Surety at least seven (7) days advance written notice of the effective date of termination. The District shall have the sole discretion to permit the Contractor to remedy the cause for the termination without waiving the District's right to terminate the Contract, or otherwise waiving, restricting or limiting any other right or remedy of the District under the Contract Documents or the Laws.

15.1.2. District's Rights Upon Termination. If the Contract is terminated pursuant to this Article 15.1, the District may take over the Work and prosecute it to completion, by contract or otherwise, and may exclude the Contractor from the Site. The District may take possession of the Work and of all of the Contractor's tools, appliances, Construction Equipment, machinery, materials, and other items at or about the Site, and use the same to the full extent they could be used by the Contractor without liability to the Contractor. The District shall have the sole discretion as to the manner, methods, and reasonableness of the costs of completing the Work; the District shall not be required to obtain the lowest price for completion of the Work. If the District takes bids for completion of the Work, the Contractor is not eligible for award of such contract(s).

15.1.3. Completion by the Surety. If the Contract is terminated pursuant to this Article 15.1, the District may demand that the Surety take over and complete the Work, in which case the rights and obligations of the District and the Surety shall be as set forth in the Performance Bond. Upon the failure or refusal of the Surety to take over and begin completion of the Work within twenty (20) days after demand therefor, the District may take over the Work and prosecute it to completion as provided for above, provided that such action of the District shall not operate to modify, diminish or otherwise affect the liability of the Surety or Contractor to the District under the Contract Documents, Performance Bond or the Laws.

15.1.4. Assignment and Assumption of Subcontracts. Upon termination pursuant to the foregoing, the District shall, in its sole and exclusive discretion, have the option of requiring any Subcontractor or Material Supplier to perform in accordance with its Subcontract or Purchase Order with the Contractor and/or assign the Subcontract or Purchase Order to the District or such other person or entity designated by the District.

15.1.5. Costs of Completion. In the event of termination under this Article 15.1, the Contractor shall not receive any further payment of the Contract Price until the Work is completed. If the unpaid balance of the Contract Price as of the date of termination exceeds the District's direct and indirect costs and expenses for completing the Work, including without limitation, attorneys' fees and compensation for additional professional and consultant services, such excess shall be used to pay the Contractor for the cost of the Work performed prior to the effective date of termination with a reasonable allowance for overhead and profit. If the District's costs and expenses to complete the Work exceed the unpaid Contract Price, the Contractor and the Surety shall be jointly and severally liable for payment of the difference to the District.

15.1.6. Conversion to Termination for Convenience. If the Contract is terminated under this Article 15.1, and it is determined, for any reason, that the Contractor was not in default under the provisions hereof, the termination shall be deemed a Termination for Convenience of the District and thereupon, the rights and obligations of the District and the Contractor shall be determined in accordance with Article 15.2 hereof.

15.1.7. District's Rights Cumulative. If the Contract is terminated pursuant to this Article 15.1, the termination shall not affect or limit any rights or remedies of the District against the Contractor or the Surety. The rights and remedies of the District under this Article 15.1 are in addition to, and not in lieu of, any other rights and remedies provided by the Laws or under the Contract Documents.

15.2. Termination for Convenience of the District. The District may at any time, in its sole and exclusive discretion, by written notice to the Contractor, terminate the Contract in whole or in part when it is in the interest of, or for the convenience of, the District. In such case, the Contractor shall be entitled to payment for: (i) Work actually performed and in place as of the effective date of such termination for convenience of the District, with a reasonable allowance for profit and overhead on such Work, and (ii) reasonable termination expenses for reasonable protection of Work in place and suitable storage and protection of materials and equipment delivered to the Site but not yet incorporated into the Work, provided that such payments exclusive of termination expenses shall not exceed the total Contract Price as reduced by payments previously made to the Contractor and as further reduced by the value of the Work as not yet completed. The Contractor shall not be entitled to profit and overhead on Work which was not performed as of the effective date of the termination for convenience of the District. The District may, in its sole discretion, elect to have subcontracts assigned pursuant to Article 15.1.4 above after exercising the right hereunder to terminate for the District's convenience.

16. Miscellaneous

- 16.1. Governing Law; Interpretation. This Contract shall be governed by and interpreted pursuant to the laws of the State of California. The titles used in the Contract Documents are for convenience of reference only shall have no effect upon the interpretation of the Contract Documents. The Contract Documents shall be construed as a whole in accordance with their fair meaning and not strictly for or against the District or the Contractor. The neuter gender shall include the feminine and masculine, the masculine gender shall include the feminine and neuter, the singular number shall include the plural and the plural number shall include the singular. Except as otherwise expressly provided, capitalized terms used in the Contract Documents shall have the meaning and definition for such term as set forth in the Contract Documents.
- 16.2. Successors and Assigns. Unless otherwise expressly provided in the Contract Documents, all terms, conditions and covenants of the Contract Documents shall be binding upon, and shall inure to the benefit of the District and the Contractor and their respective heirs, representatives, successors-in-interest and assigns.
- 16.3. Cumulative Rights and Remedies; No Waiver. Duties and obligations imposed by the Contract Documents and rights or remedies available thereunder shall be in addition to and not in lieu of or otherwise a limitation or restriction of duties, obligations, rights and remedies otherwise imposed or available by the Laws. No action or failure to act by the District shall constitute a waiver of a right or remedy afforded it under the Contract Documents or the Laws nor shall such an action or failure to act constitute approval of or acquiescence in a breach hereunder.
- 16.4. Severability. If any provision of the Contract Documents is deemed illegal, invalid, unenforceable and/or void, by a court or any other governmental agency of competent jurisdiction, such provision shall be deemed to be severed and deleted from the Contract Documents, but all remaining provisions hereof, shall in all other respects, continue in full force and effect.
- 16.5. No Assignment by Contractor. The Contractor shall not assign the Contract or any obligation of the Contractor thereunder, in whole or in part, without the express prior written consent and approval of the District, which may be granted, conditioned or withheld in the sole and exclusive discretion of the District.

- 16.6. Time of Essence. Time is of the essence in the Contractor's performance of its obligations under the Contract Documents.
- 16.7. Independent Contractor Status. The Contractor is an independent contractor to the District and not an agent or employee of the District.
- 16.8. Notices. Except as otherwise expressly provided for in the Contract Documents, all notices which the District or the Contractor may be required, or may desire, to serve on the other, shall be effective only if delivered by: (i) personal delivery; or by (ii) postage prepaid, First Class Certified Return Receipt Requested United States Mail, addressed to the District or the Contractor at their respective address set forth in the Contract Documents, or such other address(es) as either the District or the Contractor may designate from time to time by written notice to the other in conformity with the provisions hereof. For personal delivery, such notices shall be deemed effective upon delivery, provided that such personal delivery requires a signed receipt by the recipient acknowledging delivery of the same. For mailed notices, such notice shall be deemed effective on the third (3rd) working day after deposit in the mail.
- 16.9. Disputes; Continuation of Work. Notwithstanding any claim, dispute or other disagreement between the District and the Contractor regarding performance under the Contract Documents, the scope of Work thereunder, or any other matter arising out of or related to, in any manner, the Contract Documents or the Work, the Contractor shall proceed diligently with performance of the Work in accordance with the District's written direction, pending any final determination or decision regarding any such claim, dispute or disagreement.
- 16.10. Dispute Resolution; Arbitration.
- 16.10.1. Claims Under \$375,000.00. Claims between the District and the Contractor of \$375,000.00 or less shall be resolved pursuant to Public Contract Code, §§20104 et seq.; provided however that California Public Contract Code §20104.2(a) shall not supersede the requirements of the Contract Documents for the Contractor's notification to the District of such claim or extend the time for the giving of such notice. The term "claims" used herein shall be as defined in Public Contract Code §20104(b)(2).
- 16.10.2. JAMS Arbitration. Except as provided in Article 16.10.1, any other claims, disputes, disagreements or other matters in controversy between the District and the Contractor arising out of, or related, in any manner, to the Work, the Contract Documents, or the interpretation, clarification or enforcement thereof shall be resolved by binding arbitration conducted by a JAMS arbitrator with expertise in public works construction matters and in accordance with the Comprehensive Arbitration Rules and Procedures of JAMS in effect as of the date that a Demand for Arbitration is filed, except as modified herein. The locale for any arbitration shall be the regional office of JAMS closest to the Site.
- 16.10.3. Demand for Arbitration. A Demand for Arbitration shall be filed and served within a reasonable time after the occurrence of the claim, dispute or other disagreement giving rise to the Demand for Arbitration, but in no event after the date when institution of legal or equitable proceedings based upon such claim, dispute or other disagreement would be barred by the applicable statute of limitations. If either the District or the Contractor assert that the other filed a Demand for Arbitration after expiration of the applicable statute of limitations, no arbitration proceeding shall be commenced until there is a judicial adjudication of whether or not matters raised in the Demand for Arbitration are barred by the applicable statute of limitations and a judgment or an order is entered by a Superior Court of the State of California with competent jurisdiction.
- 16.10.4. Discovery. In connection with any arbitration proceeding commenced hereunder, the

discovery rights and procedures under California Code of Civil Procedure §1283.05 shall be applicable, and the same are incorporated herein by this reference.

16.10.5. Arbitrator's Award. Notwithstanding Rule 24 of JAMS Comprehensive Arbitration Rules and Procedures, in accordance with California Code of Civil Procedure §1296, in any arbitration commenced hereunder, the arbitrator's award shall be supported by law and substantial evidence; the District and Contractor hereby expressly agree that a court shall, subject to California Code of Civil Procedure §1286.4, vacate the arbitrator's award if after review it determines either that the arbitrator's award is not supported by substantial evidence or that it is based on an error of law. Any arbitration award that does not include written findings of fact and conclusions of law in conformity with California Code of Civil Procedure §1296 shall be invalid and unenforceable. Subject to the foregoing provisions, the arbitrator's award shall be final, binding and conclusive upon the District and the Contractor.

16.10.6. Costs. Expenses and fees of the arbitration and the arbitrator shall be divided equally among the parties to the arbitration. Each party to an arbitration commenced hereunder shall bear its own attorneys' fees, witness fees and other costs and expenses in connection with such arbitration. The foregoing notwithstanding, the arbitrator may award arbitration costs, consisting of arbitration expenses and the arbitrator's fees but excluding attorneys' fees, to the prevailing party.

16.10.7. Confirmation of Arbitration Award. The confirmation, enforcement, vacation or correction of an arbitration award shall be by the Superior Court of the County in which the Site is located. The substantive and procedural rules for such post-award proceedings shall be as set forth in California Code of Civil Procedure §1285 et seq.

16.10.8. Inapplicability to Bid Bond. This Article 16.11 is not applicable to disputes, disagreements or enforcement of the Bid Bond; all claims, disputes and actions to enforce rights or obligations under the Bid Bond shall be adjudicated exclusively by judicial proceedings commenced in a court of competent jurisdiction.

16.10.9. Government Code Claims. All claims, demands, disputes, disagreements or other matters in controversy asserted by the Contractor against the District in a demand for arbitration filed pursuant to Article 16.10.2 or asserted by the Contractor against the District in any arbitration proceeding commenced pursuant to Article 16.10.2 above, shall be deemed a "suit for money or damages" under Government Code §900 et seq. An express condition precedent to the Contractor's commencement of arbitration proceedings under Article 16.10.2, is the Contractor's strict compliance with and exhaustion of remedies and procedures under Government Code §900 et seq, including without limitation, §§945.4, 945.6 and 946. Notwithstanding the dispute resolution provisions set forth herein, all claims demands, disputes, disagreements or other matters in controversy asserted by the Contractor against the District seeking money or damages shall first be presented to the District's Board of Trustees and acted upon or deemed rejected by the Board of Trustees pursuant to Government Code §900 et seq.

16.11. Attorneys' Fees. Except as expressly provided for in the Contract Documents, or authorized by the Laws, neither the District nor the Contractor shall recover from the other any attorneys' fees or other costs associated with or arising out of any legal, administrative or other proceedings filed or instituted in connection with or arising out of the Contract Documents or the performance of either the District or the Contractor thereunder.

16.12. Provisions Required by the Laws Deemed Inserted. Each and every provision of the Laws and clause required by the Laws to be inserted in the Contract Documents is deemed to be inserted herein and the Contract Documents shall be read and enforced as though such provision or clause are included herein, and if through mistake, or otherwise, any such provision or clause is not inserted or if not correctly inserted, then upon application of either party, the Contract Documents shall forthwith be physically amended to make such insertion or correction.

16.13. Days. Unless otherwise expressly stated, references to “days” in the Contract Documents are calendar days.

16.14. Entire Agreement. The Contract Documents contain the entire agreement and understanding between the District and the Contractor concerning the subject matter hereof, and supersedes and replaces all prior negotiations, proposed agreements or amendments, whether written or oral. No amendment or modification to any provision of the Contract Documents shall be effective or enforceable except by an agreement in writing executed by the District and the Contractor.

[END OF SECTION]

SPECIAL CONDITIONS

1. Application of Special Conditions. These Special Conditions form a part of the Contract Documents for the Work generally described as: **Cafeteria and Music Bldg HVAC and Fire Alarm.**
2. Liquidated Damages. The per diem rate of Liquidated Damages for delayed Substantial Completion, delayed submission of Submittals and delayed completion of Punchlist shall be as set forth herein.
 - 2.1. Delayed Substantial Completion. If Substantial Completion is not achieved on or before expiration of the Contract Time, the Contractor shall be liable to the District for Liquidated Damages from the date of expiration of the Contract Time to the date that the Contractor achieves Substantial Completion of the Work at the per diem rate of fifteen hundred Dollars (\$ 1,500.00).
 - 2.2. Delayed Submission of Submittals. If the Contractor fails to submit a Submittal in accordance with the Submittal Schedule, the Contractor shall be liable to the District for Liquidated Damages for each delayed Submittal at the per diem rate of five hundred Dollars (\$ 500.00) from the date that such Submittal was due to be submitted pursuant to the Submittal Schedule and the date that the Contractor actually submits the Submittal to the Architect.
 - 2.3. Delayed Punchlist Completion. If the Contractor fails to complete Punchlist within the time established pursuant to the Contract Documents, the Contractor shall be liable to the District for Liquidated Damages from the date established for completion of Punchlist until the date that all Punchlist is actually completed at the per diem rate of five hundred Dollars (\$ 500.00)
 - 2.4. Surety Liability. Subject only to limitations established by the penal sum of the Performance Bond, the Surety issuing the Performance Bond shall be liable to the District for Liquidated Damages due from the Contractor.
3. Construction Manager. The Construction Manager is PCM3, Inc.
4. District Furnished Drawings and Specifications. Pursuant to Article 2.1.3 of the General Conditions, the District will furnish to the Contractor for use solely and exclusively in connection with performance of the Work zero (-0-) printed copies of the Drawings and Specifications. Additional copies of the Drawings and Specifications may be reproduced by the Contractor at its cost and expense
5. Hours and Days of Work at the Site.
 - 5.1. Work Hours/Days. Subject to limitations set forth elsewhere in the Contract Documents and below, the hours/days of Work at the Site are: 7am – 7pm Mondays through Fridays, except for holiday days.
 - 5.2. Limitations on Work Hours/Days. Work activities at the Site will be limited or prohibited on days: (i) devoted to student testing or when testing of students may be adversely affected by Work activities at the Site; or (ii) when other special events or functions are scheduled. The Contractor shall familiarize itself with District activities at the Site to avoid Work activity interferences or disturbances to such District activities. The Contractor's Construction Schedule shall take into account the District activities which limit or preclude Work activities at the Site.
6. Contractor Personnel Parking. Personnel of the Contractor, Subcontractors and others performing Work at the Site will be allowed to park, with a valid District parking permit, in the parking spaces at a location designated by the District. Parking permit charges, if any, shall be borne and paid by the Contractor without adjustment of the Contract Price. The foregoing notwithstanding, the extent

or location of parking for such personnel may be limited, restricted, eliminated or modified by the District as reasonably necessary to facilitate and accommodate necessary parking for the District's students, staff and visitors engaged in activities and functions in and about the Site. Neither the Contract Price nor the Contract Time shall be adjusted as a result of any such District modifications to the extent or location of parking.

7. Site Perimeter Fencing. The Contractor shall install a chain link fence with fabric privacy screen around the entire perimeter of the Site to prevent dust and debris being blown from the Site to adjacent areas, including without limitation, adjacent streets and residential areas. Without adjustment of the Contract Time or the Contract Price the Contractor shall maintain all fencing in good condition and clear of any graffiti or damage. The Contractor shall remove or relocate such fencing as directed by the District or the Construction Manager.
8. Facilities/Services for Project Inspector. Pursuant to Article 4.14 of the General Conditions, during the Work, the Contractor shall provide/furnish the following facilities/services or other items for use by the Project Inspector.
9. District Provided Temporary Utilities. Pursuant to Article 4.3.4 of the General Conditions, during the Contractor's performance of the Work, the District will provide the Contractor with utility services and a point of connection for no utility services. If the District provides any utility services for use by the Contractor: (i) the District may discontinue, limit or condition use of such services by a Contractor if the District reasonably determines that the Contractor has wasted such utilities, and (ii) the District shall not be liable to the Contractor, nor shall the Contract Time or the Contract Price be increased if any District provided temporary utility service is discontinued or disrupted for any reason other than the District's non-payment of undisputed utility charges. If provided by the District, the Contractor may use the temporary electrical power and domestic potable water service in connection with the Work provided that: (i) the District may discontinue, limit or condition use of such services by a Contractor if the District reasonably determines that the Contractor has wasted such utilities, and (ii) the District shall not be liable to the Contractor, nor shall the Contract Time or the Contract Price be increased if any District provided temporary utility service is discontinued or disrupted for any reason other than the District's non-payment of undisputed utility charges. Notwithstanding any provision of the Contract Documents to the contrary, the Contractor shall not use District provided water supply in connection with any earthwork or grading operations; water supply for earthwork or grading operations shall be obtained by the Contractor, without adjustment of the Contract Time or the Contract Price, from an offsite source or mobile water delivery service. Further, notwithstanding the District providing a point of connection for the Contractor's telephone/data service at the Site, the Contractor is solely responsible for the payment of utility service charges therefor.
10. Mark-Ups on Changes to the Work. In the event of Changes to the Work, pursuant to Article 9 of the General Conditions, the mark-up for all overhead (including home and field office overhead), general conditions costs and profit, shall not exceed the percentage of allowable direct actual costs for performance of the Change as set forth below.
 - 10.1. Subcontractor Performed Changes. For the portion of any Change performed by

Subcontractors of any tier, the percentage mark-up on allowable actual direct labor and materials costs incurred by all Subcontractors of any tier shall be Fifteen Percent (15%). In addition, for the portion of any Change performed by a Subcontractor of any tier, the Contractor may add an amount equal to Five Percent (5%) of the allowable actual direct labor and materials costs of Subcontractors performing the Change; the foregoing mark-up shall not be applied to the Subcontractor mark-up.

- 10.2. Contractor Performed Changes. For the portion of any Change performed by the Contractor's own forces, the mark-up on the allowable actual direct labor and materials costs of such portion of a Change shall be Fifteen Percent (15%).
- 10.3. Bond Premium Costs. In addition to the foregoing mark-ups on the direct costs of labor and materials, a bond premium expense in an amount equal to the lesser of the Contractor's actual bond premium rate of One Percent (1%) of the total actual direct costs of labor and materials (before Subcontractor and Contractor mark-ups) will be allowed.
- 10.4. Exclusions From Mark-Up of Actual Costs. Mark-ups on the actual cost of materials/equipment incorporated into a Change or for purchase/rental of Construction Equipment shall not be applied to any portion of such costs which are for sales, use or other taxes arising out of the purchase of materials/equipment and/or for purchase/rental of Construction Equipment.
11. Use of Project Allowance.
- 11.1. The Allowance is used only as directed by the Owner.
- 11.2. The Allowance is used exclusively for the Owner's purposes and for scope(s) of work as directed by Owner.
- 11.3. The contractor/sub-contractor will prepare detailed breakdown of all costs associated with the work defined for the Allowance. These amounts will be charged against the Allowance by Change Order, based on final detailed payment receipts and back-up as required by Architect/Engineer, and will include all costs of work performed under the defined work scope. If required by Owner, Contractor shall obtain quotes for equipment from three separate vendors and present to District for consideration and selection.
- 11.4. Contractor shall include in the base bid contract amount all cost of coordination, supervision, bond costs, overhead and profit, supervision, installation and all indirect project costs associated with performing the work of each Allowance. Contractor shall be permitted to charge only its direct costs to perform the work, as indicated through documentation approved by the District.
- 11.5. At project closeout, any unused Cash Allowance amounts shall be credited to the Owner by Change Order. Contractor shall not deduct costs such as bond costs, overhead and profit or other indirect costs when returning any unused Cash Allowance amounts.
- 11.6. Changes that exceed the scope of work or amount of each Allowance covered by each allowance will be processed as a Change Order per Contract Documents.
12. Rain Days. The Contractor's Construction Schedules prepared pursuant to Article 7 of the General Conditions shall incorporate the Rain Days set forth below; there shall be no adjustment to the Contract Time on account of unusually severe weather conditions resulting from rainfall until the actual number of Rain Days exceeds the number of Rain Days set forth below. The Contractor's Construction Schedule shall incorporate the following number of Rain Days for each Calendar Month of the Contract Time:

Month	Rain Days
January	four (4)
February	four (4)
March	three (3)
April	two (2)

May	two (2)
June	none
July	none
August	none
September	none
October	two (2)
November	three (3)
December	four (4)

13. Deferred Approval Items. The following Deferred Approval Items are incorporated into and made a part of the Work: N/A. The Contractor is responsible for preparing all materials necessary for DSA review and approval of Deferred Approval Items without adjustment of the Contract Time or the Contract Price.

14. Insurance Coverages

14.1. Contractor Insurance. Pursuant to Article 6 of the General Conditions, the Contractor shall obtain and maintain the following insurance coverages with minimum coverage amounts as set forth below:

Policy of Insurance	Minimum Coverage Amount
Commercial General Liability Insurance	Per Occurrence: One Million Dollars (\$1,000,000)
	Aggregate: Two Million Dollars (\$2,000,000)
Workers Compensation	In accordance with the Laws
Employers Liability	One Million Dollars (\$1,000,000)
Builders Risk	Full insurable value of the Work; Seismic coverage: Not Required

14.2. Subcontractor Insurance. Pursuant to Article 6 of the General Conditions, each Subcontractor shall obtain and maintain the following insurance coverages with minimum coverage amounts as set forth below

Policy of Insurance	Minimum Coverage Amount
Commercial General Liability Insurance	Per Occurrence: One Million Dollars (\$1,000,000)
	Aggregate: Two Million Dollars (\$2,000,000)
Workers Compensation	In accordance with the Laws
Employers Liability	One Million Dollars (\$1,000,000)

[END OF SECTION]

COMPTON COMMUNITY COLLEGE DISTRICT
CAFETERIA AND MUSIC BLDG. HVAC & FIRE ALARM

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END OF SECTION

COMPTON COMMUNITY COLLEGE DISTRICT

SECTION 01 01 00
SCOPE OF WORK

RFQ CCC-059
Cafeteria and Music Building HVAC and Fire Alarm

PART 1 - GENERAL

1.01 SECTION INCLUDES:

- A. Work Covered by Contract Documents
- B. Contract Method
- C. Contractor Use of Premises

1.02 WORK COVERED BY CONTRACT DOCUMENTS:

- A. **Work Included:** The work to be performed by contractor shall conform to the requirements of all of Division 00 and Division 01 as well as the General Conditions, Special Conditions, and all related Specifications that pertain to this Bid Package scope of work, all sheets in Drawings and other related documents, and includes the furnishing of all supervision, labor, materials, tools, equipment, transportation, plan and services necessary therefore and incidental thereto to complete the project. The work shall consist of, but not be limited to, the following:

1. This Contractor is responsible to accurately locate and provide all scope of work necessary to provide the HVAC and Fire Alarm for the entire project including but not necessarily limited to flashing and sheet metal, roof specialties, roof patching, structural reinforcement of roof for HVAC units, building access doors and panels as necessary to access the units and accessories, HVAC equipment, low voltage wiring, motor controls, control devices, temperature control, and control wiring, exhaust fans, power gravity ventilators, HVAC pumps, variable frequency drive, package gas/electric units, fan coil units, condensing units, exhaust fans, split air conditioning system, air handling units, air cleaning, metal ductwork, multi-zone heating ventilating units, supply fans, economizers, factory curbs, ductwork accessories, air outlets and inlets, fire dampers, duct detectors, diffusers, thermostats, by-pass timers, temperature control system, control wiring, volume dampers, dampers for exterior louvers, transfer grilles, mechanical related insulation, fire stopping, and joint sealants, testing, adjusting and balancing as shown on plans and/or specification
2. This Contractor is responsible to provide all fire alarm, electrical, framing, structural, low voltage, cutting, patching, painting, relocation of existing electrical and plumbing lines, final clean up to complete the scope of work shown on plans and/or specifications.
3. **This Contractor is to add an allowance of \$75,000 in their base bid.** The allowance shall be listed as a line item in the schedule of values. The allowance is to be utilized at the discretion of the District through the Construction Manager. The Construction Manager shall be informed of any

COMPTON COMMUNITY COLLEGE DISTRICT

additional work for validation and for authorization from the District to use the allowance or portion of the allowance to do the work. The Construction Manager will document the proposed work (via the AUR form) which will be performed on a time and material basis, not to exceed if such claim is valid. If this allowance is not exhausted by the end of this contractor's contract, a deductive change order will be prepared for any portion of the allowance not used.

4. All work performed under this contract will be conducted under the Occupied Site Protocol. The buildings and area of work will be occupied during the construction schedule. All work performed will need to be done after normal hours on swing shift and/or during numerous short breaks in the class schedule between December 16, 2019 and June 30, 2019. All structural work associated with the Cafeteria should be done during this winter break from 12/16/19 through 01/03/20. Please reference the schedule included in Specification Section 01 43 80 Work Plan and Milestone Schedule. The class breaks where the students are not in class are:
 - a. 12/16/19 through 01/03/20
 - b. 02/07/20 through 02/17/20
 - c. 04/10/20 through 04/17/20
 - d. 06/12/20 through 06/30/20
5. The Contractor will also be required to provide continuous cleaning of the areas that are being worked in at the end of each day and protect the contents of the areas worked in.
6. The Contractor will ensure that all construction traffic does not impede into the student/staff parking areas. All construction traffic must have flagmen to ensure that there are no disturbances to the campus operations. Early morning (prior to 7AM) deliveries are preferred and /or Friday and Saturdays are better days for large trucks, crane activity, etc.
7. The District will be notified by the Contractor through the Construction Manager a minimum of 48 hours prior to any utility shut down necessary for the work.
8. Contractor storage yard, lay down area and offices will be located on an existing site to be determined by Construction Manager, Contractor and the District.
9. Temporary Facilities: This Contractor will have sole responsibility for providing all required temporary services of toilets, water, safety, construction access, and temporary fencing for this contract. These temporary facilities include but are not limited to self-contained toilet units /sanitary facilities, temporary roads and paved areas, maintaining fire lane access at all times during construction, facilities for dewatering (from any source of water) and drains, project identification and temporary construction signage, trash disposal facilities, environmental protection, storm water control, tree and plant protection, pest control, barricades, traffic control flagman/flagmen with phone/radio, (daily at all points of delivery and/or exiting of materials, waste etc. as required), security, warning signs and lights, temporary enclosures, temporary partitions, temporary fire protection and fire extinguishers.
10. The following is additional information, instructions and detailed requirements for this Contractors scope of work as identified.
 - a. Provide all shop drawings and submittals so as to not cause any delays to any portion of the construction schedule and in compliance with Specification Section 01 43 80. All delays for not complying with the procurement schedule will be referred to delay claims by the District to the Contractor per the general conditions.

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This Contractor is to adhere to the following submittal schedule shown as Calendar Days.

1. Executed contract.	Five (5) Days from the District's issuance of a Notice to Proceed.
2. Submittal	Fifteen (15) Days from the District's issuance of a Notice to Proceed
3. Shop Drawing Schedule	Fifteen (15) Days from the District's issuance of a Notice to Proceed
4. Procurement schedule with all copies of purchase orders and subcontractor agreements.	Fifteen (15) Days from the District's issuance of a Notice to Proceed
5. Manufacturing schedule with all long lead and special inspection requirements.	Fifteen (15) Days from the District's issuance of a Notice to Proceed
6. Delivery schedule.	Fifteen (15) Days from the District's issuance of a Notice to Proceed
7. Detailed construction schedule.	Fifteen (15) Days from the District's issuance of a Notice to Proceed
8. Commissioning, Warranty, Closeout and punch list schedule.	Fifteen (15) Days from the District's issuance of a Notice to Proceed.

11. Furnish and install all Demolition scope of work to include but not be limited to: all demolition work as shown on plans and/or as described in the specifications.
12. Provide Duct Cleaning of existing ductwork to be re-used per plans and/or specifications.
13. Furnish and install all Sheet Metal Flashing and Trim scope of work to include but not be limited to: sheet metal materials and fabrications, accessories, prefabricated components, fabrication, and all work, shown on plans and/or specifications.
14. Furnish and install all Firestopping scope of work to include but not be limited to: to complete the scope of work as shown on plans and/or specifications.
15. Furnish and install all Joint Sealants scope of work to include but not be limited to: complete the scope of work as shown on plans and/or specification.
16. Furnish and install all Louvers scope of work to include but not be limited to: to complete the scope of work as shown on plans and/or specification.
17. Furnish and install all HVAC scope of work to include but not be limited to: AC units, Heating and ventilating units, exhaust fans, package units, split system fan coil and condensing units, refrigerant piping, condensate drain lines, fire and smoke dampers, ductwork and accessories, grilles, registers, diffusers, controls, duct insulation, vibrations isolation, test and balancing, fire

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barrier duct wrap, fire caulking, fasteners, thermostats, and all work as shown on plans and/or specifications.

18. Furnish and install all Energy Management Controls System scope of work as shown on plans and/or Specification.
19. Provide all flashing, sheet metal, and collars as shown on the plans and/or specification section. Furnish roof jacks for roof penetrations if required.
20. Provide roof specialties related to this contractor's scope of work including but not limited to the following: automatic fire vents, aluminum roof curbs, factory roof curbs, roof curb mounting, HVAC related flashing and counter flashing as shown on the plans and/or specifications. It shall be the responsibility of this contractor to ensure that all rooftop HVAC equipment is mounted atop a level surface, including any roof framing that is required.
21. Provide all general provisions, mechanical scope of work for the entire project for complete and operating systems as shown on plans and/or identified in HVAC Specifications and/or on the plans.
22. Provide all HVAC equipment start up scope of work for the entire project, including but not necessarily limited to all: coordination requirements for start up procedures, all manufacturer requirements, continuous supervision after start ups, continuous maintenance after start up and prior to turnover to the District, adjustments, testing, all environmental control requirements for installation of climate sensitive material, multi-zone damper and zone ducting, equipment supports and lateral restraint details, refrigerant piping, outdoor piping support details, duct hanger supports, automatic temperature control diagrams with sequence of operation, and fitting connections, certified letter from manufacturer for factory start-up, valves and accessories as shown on plans and/or identified in HVAC Specifications.
23. Provide all low-voltage HVAC control wiring including final connections to control devices, and equipment.
24. Provide all unit mounting and weatherproofing as shown on plans and/or specifications, including but not limited to the unit base rail, lifting lugs, lag bolts, steel angles, screws, neoprene weather seals, insulation and duct work.
25. Provide and affix maintenance label and provide maintenance manuals for all equipment.
26. Provide all seismic requirements, strapping, wire attachments, uni-strut, and roof blocking details scope of work on plans and/or specifications.
27. Provide all HVAC access panels required whether or not specified in the plans and/or specifications.
28. Provide all manufactured 1-hour fire enclosures for fire dampers located at rated ceilings and walls.
29. Provide all required sheet metal scope of work at all duct penetrations of roofs, floors and walls.
30. Provide all attachments required for ceiling diffusers to t-bar ceilings and ceiling framing, including additional wires if necessary.
31. Provide all cutting, notching and core drilling necessary. Obtain written approval from Architect prior to performing any cutting, notching, core drilling or weakening of any structural member. All costs related to remedial work caused by damage to existing structure that causes a delay to the approved schedule due to unauthorized work will be borne by this contractor.
32. Provide all bird screens, insect screens, and rain guards' scope of work for the entire project.

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33. Install all duct smoke detectors as shown on plans and/or specifications. Detectors to be furnished and hooked-up by HVAC contractor as necessary.
 34. Provide all start-up, testing, adjusting, and training for all new units before occupancy. Final air balancing for the entire project to be performed by this contractor.
 35. Provide all required devices in ductwork at all firewall and ceiling penetrations to meet ratings as required by Code.
 36. Damage to framing members beyond designed strength or damage to finish surfaces while installing registers and finish devices shall be repaired and/or replaced by this contractor without additional cost and without any delay to the construction schedule.
 37. Provide all points of connection at units for condensate lines.
 38. Provide all roof openings, transfer grilles, grilles and louvers, vent curbs, duct work, equipment, equipment platforms, horizontal and vertical penetrations, electrical requirements, gas, water and condensation requirements, openings, and cutouts pertaining to this contractor's scope of work.
 39. Contractor is responsible for caulking, sealing, weatherproofing, and/or roofing all penetrations that have been made.
 40. Provide all transfer grilles, grilles and louvers, vent curbs, duct work, forced air louvers, grilles, & vents, rough ins, equipment, equipment platforms, horizontal and vertical penetrations, electrical requirements, gas, water and condensation requirements, openings, and cutouts.
 41. Provide all special insulating, packing, sealing requirements for wall penetrations.
 42. Provide all hoisting necessary for entire scope of work.
 43. Provide all temporary access as required for the Contractor's entire scope of work. This includes, but is not limited to, scaffolding, catwalks, scissors lifts, pettibones, rigging, cranes, gang ways, etc
 44. Provide all necessary seismic expansion joint assemblies scope of work for this bid package per plans and/or specified in HVAC Specifications.
- B. **Existing Site Conditions:** This Contractor shall make a thorough examination of the site to determine all existing conditions affecting the work prior to beginning any work under this bid package. All conflicts within the contract documents and existing conditions are to be brought to the attention of the Construction Manager during the bidding process by way of the pre-bid clarification form issued at the job walk including a review of available access for roof modification shown on structural drawings. Any claims for changes in scope or claims for additional compensation will not be considered for this contractor's failure to notify the Construction Manager of such a conflict/discrepancy.
- C. **Location of Site:** The site is located at:
- Compton College
1111 E. Artesia Blvd.
Compton, CA 90221

GENERAL ITEMS

- a. This Contractor has reviewed the drawings and understands that this project is a General Contractor project.
- b. All costs for repairs and delays due to negligence shall be borne by this contractor

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- without impact to the approved construction schedule and without additional cost to the District.
- c. Provide all shop drawings and submittals so as to not cause any delays to any portion of the construction schedule.
 - d. Provide adequate penetrations, block outs, outlets, openings, cutouts, fixture locations, backing, and access panel openings.
 - e. Continuous site cleanup of the construction site is mandatory. This includes sweeping, water removal, and litter/debris removal of the interior & exterior of the building and staging areas. This Contractor shall provide their own debris boxes/dumpsters for the duration of the project, and put debris in own debris boxes and remove said boxes from site at this contractor's own expense prior to the end of the work day or as directed by the Construction Manager. All debris boxes and containers shall be kept free of graffiti at all times. If this Contractor fails to perform daily clean up, the Construction Manager upon written notice to the Contractor shall order that clean up done at this Contractor's expense and adjust Contractors contract accordingly.
 - f. This Contractor shall coordinate his work with that of other contractors and work by the District. All potential space conflicts are to be identified during the bidding and field investigation process. If a field space conflict is encountered, it shall be reworked or rerouted at no additional cost, and only a scope change by the Architect will be considered for contract price adjustment.
 - g. Request for Information – This Contractor shall make requests for information in writing to the construction manager as they relate to issues regarding interpretation and clarification of the plans and specifications. Construction manager will forward to Architect/District for response. All requests shall be made in a timely manner allowing for a five (5)-calendar day response time so as not to delay the work or overall schedule.
 - h. Revisions/Updating Contract Documents – This Contractor is responsible to immediately update all field and office sets of contract documents upon receipt of any revised instructions. This includes addenda, revised drawings, “RFI” responses, bulletins, etc. This Contractor shall insert, “cut and paste”, revise with red ink or other suitable methods denoting the most current construction documents. Payments to the contractor shall be withheld until drawings are updated.
 - i. Record Drawings – This Contractor shall maintain and update all changes in the work on the Construction Managers record drawing set in the field office. All entries must be made and reviewed by the Project Inspector on a daily basis. Payments to the contractor shall be withheld until drawings are updated.
 - j. Contractor Personnel – The district has complete authority to review and approve selection of this Contractor's field and office personnel for this project. The district has authority to request replacement of any Contractor personnel for reasons determined by the District. This Contractor shall maintain the same approved personnel throughout the entire duration of the project at the District's discretion. This Contractor will, at the time of award of work, furnish a list of persons assigned to the Project showing their titles and telephone numbers. Emergency telephone numbers shall also be provided for after hour use by the District. Failure to provide an adequate Project Manager or Superintendent shall result in an assessment of Construction Management costs levied to have the Construction Manager coordinate and manage contractors / subcontractor's work. In no event shall Construction Manager be liable for any

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costs associated with this Contractor's lack of supervision. This Contractor agrees to use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work.

- k. Provide timely requests for clarifications and other information to allow reasonable response time and avoid delay to the construction schedule.
- l. Schedule shall be in accordance with District approved construction milestone schedule and all subsequent revisions.
- m. Provide punch list, punch list repairs/corrections, final clean up, and closeout for this bid package per contract construction schedule. Parties agree that delays to punch list, final clean up, and closeout would constitute a delay in project completion and, therefore, entitles the District to withhold and retain potential liquidated damages per the Contract Documents from this Contractor's progress payments.

1.03 CONTRACT METHOD:

- A. Construct the Work under a single Lump Sum Contract with a Schedule of Values.

1.04 CONTRACTOR USE OF PREMISES:

- A. Contractor shall have use of the premises for the execution of the work as outlined in the contract documents.
- B. Work Week and Job Hours – Activities at the Project Site shall be conducted per Article 1.02 paragraph 4 of this section 01 01 00 unless otherwise authorized by the District.
- C. Coordinate use of the premises under the direction of the Construction Manager.
- D. Assume full responsibility for the protection and safekeeping of products and work under this Contract that are stored & installed on the site.
- E. This Contractor shall enforce that all persons working on the site use only non-permanent markers, tapes and tags to indicate construction techniques and instructions, on construction in progress, and on existing construction. This includes markings on exterior and interior of building and on walks, curbs, walls and other site surfaces. Where work is damaged or defaced by use of permanent marking devices, such work will be subject to cleaning, repair or replacement, as the Architect may require.
- F. Move any stored products under This Contractor's control that interferes with the operations of the Owner and/or any other Contractor that is on a separate contract.
- G. Obtain and pay for the use of additional storage or work areas needed for operations.
- H. Theft: If any person working on the contract should engage in theft of money, property, supplies, equipment, food, or any other item, whether from the District's personnel, students, facilities, employees, visitors, or from another of the Contractor's personnel or subcontractors, will be immediately and permanently dismissed from the site.
- I. All District property is drug free, alcohol free, weapons free and graffiti free. This Contractor shall enforce these rules to his crew, subcontractors and suppliers.
- J. All contractors shall be required to provide badges from their firm indicating employee identification while in District property. Contractor shall provide Dept. of Justice

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background checks with the state for all full-time Superintendents and Foremen for the project, and coordinate / provide all documentation necessary to the District through the Construction Manager. The Superintendent or Foreman shall be responsible for signing in all personnel under his/her authority every day and providing the sign-in sheet to the Construction Manager at the close of every business day. This cost shall be included in the Contractor's bid.

END OF SECTION

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ALLOWANCES

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Allowances which the Contractor shall provide for designated construction activities in the Work and in this bid.
- B. The provisions in this Section only apply if the Owner includes Allowances in the Contract.

1.2 RELATED DOCUMENTS

- A. The Conditions of the Contract and other section of Division 01 apply to this section as fully as if repeated herein, including Section 01 01 00 – Scope of Work.

1.3 DESCRIPTION OF REQUIREMENTS

- A. Definitions and Explanations: Certain requirements of the construction related to each allowance are indicated and specified. The Allowance has been established by the Owner and represents selection by the Owner of selected Sub-Contractors for designated portions of the work specified and shown.
- B. Types of allowance scheduled herein for the Work include lump sum cash allowances. Include all allowances in Contract sum, and identify all allowances in Schedule of Values as separate line items.
- C. Selection and Purchase: At earliest feasible date after award of contract, advise the Architect/Engineer of scheduled date when final selection and purchase of each product or system described by each allowance must be accomplished in order to avoid delays in performance of the Work.
 - 1. Establish date by which Prime Contractor must enter into contract and coordinate with sub-contractor responsible for work defined by allowance.
 - 2. Establish date by which final list of products must be established for purchase of products and systems as specifically selected by the District.

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1.4 DEFINITIONS AND DESCRIPTION OF REQUIREMENTS

- A. Cash Allowance Criteria
1. The Allowance is used only as directed by the Owner.
 2. The Allowance is used exclusively for the Owner's purposes and for scope(s) of work as directed by Owner.
 3. The sub-contractor will prepare detailed breakdown of all costs associated with the work defined for the Allowance. These amounts will be charged against the Allowance by Change Order, based on final detailed payment receipts and back-up as required by Architect/Engineer, and will include all costs of work performed under the defined work scope.
 - a. If required by Owner, Contractor shall obtain quotes for equipment from three separate vendors and present to District for consideration and selection.
 4. Contractor shall include in the base bid contract amount all cost of coordination, supervision, bond costs, overhead and profit, supervision, installation and all indirect project costs associated with performing the work of each Allowance. Contractor shall be permitted to charge only its direct costs to perform the work, as indicated through documentation approved by the District.
 - a. At project closeout, any unused Cash Allowance amounts shall be credited to the Owner by Change Order. Contractor shall not deduct costs such as bond costs, overhead and profit or other indirect costs when returning any unused Cash Allowance amounts.
 - b. Changes that exceed the scope of work or amount of each Allowance covered by each allowance will be processed as a Change Order per Contract Documents.

PART 2 – PRODUCTS - (Not Applicable)

PART 3 – EXECUTION

3.1 SCHEDULE OF CASH ALLOWANCES

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1. This Contractor will provide a **\$75,000.00** Allowance which is to be included in the base bid. This allowance is to be used at the District's discretion.

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ALTERNATES

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section specifies administrative and procedural requirements for Alternates.
- B. Definition: An Alternate or Alternate Bid is an amount proposed by Bidders and stated on the Bid Form for certain construction activities defined in the Bidding Requirements that may be added to or deducted from Base Bid amount if the School District decides to accept a corresponding change in either the amount of construction to be completed, or in the products, materials, equipment, systems or installation methods described in Contract Documents.
- C. Coordination: Coordinate related Work and modify or adjust adjacent Work as necessary to ensure that Work affected by each accepted Alternate is complete and fully integrated into the project.
- D. Notification: Immediately following the award of the Contract, prepare and distribute to each party involved, notification of the status of each Alternate. Indicate whether Alternates have been accepted, rejected or deferred for consideration at a later date. Include a complete description of negotiated modifications to Alternates.
- E. A "Schedule of Alternates" is included as an attachment at the end of this section.
 - 1. Include as part of each Alternate, miscellaneous devices, accessory objects and similar items incidental to or required for a complete installation whether or not mentioned as part of the Alternate.

1.2 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division-1 Specification Sections, apply to this Section.
- B. Bid Form

PART 2 – PRODUCTS - (Not Applicable)

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PART 3 - EXECUTION

3.1 SCHEDULE OF ALTERNATES

1. There are no alternates on this bid.

END OF SECTION

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CONTRACT MODIFICATION PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section specifies administrative and procedural requirements for making modifications to the contract including:
 - 1. Change Orders/Allowance Usage
 - 2. Construction Change Documents (see General Conditions)
 - 3. Contract Credits
 - 4. Contract Additions
 - 5. Construction Change Directives
 - 6. Emergency Change Directives (see General Conditions)
 - 7. Instructions
- B. Modifications:
 - 1. Provide full written data required to evaluate contract modifications, including breakdown of labor, material, equipment and description of work with unit costs for each category.
 - 2. Maintain detailed records of work done on a time-and-material basis.
 - 3. Provide full documentation for all proposed Change Orders to the Architect for his review.
- C. Designate in writing the member of Contractor's organization:
 - 1. Who is authorized to accept changes in the Work.
 - 2. Who is responsible for informing others in the Contractor's employ of the authorization of changes in the Work.

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1.2 RELATED SECTIONS

- A. Addenda: All issued Addendums
- B. Agreement: The amounts of unit prices if any as established in the Contract.
- C. General Conditions Article 9, Changes in the Work.
- D. Section 01 33 00 - Submittals
- E. Section 01 63 00 - Product Substitution Procedures

1.3 REFERENCES

- A. Change Order Requirements per Title 24 Part 1 CCR.
 - 1. Changes in the plans and specifications are to be made by addenda or Change Orders or construction change documents approved by the Division of the State Architect, Title 24 Part 1 Section 4-338.
 - 2. Change Orders: Changes or alterations of the approved plans or specifications after a contract for the work has been awarded are to be made by means of Change Orders. State the reason for the change and provide supplementary drawings where necessary. Change Orders must be manually signed by the Architect or Engineer in general responsible charge of observation of the work or by the Architect or Engineer delegated responsibility for observation of the portion of the work affected by the Change Order.
 - 3. Change Orders are required to bear the approval of the School Board or their authorized representative upon delegated authority.
 - 4. One original signed copy by all parties of each Change Order is required for the files of the Division of the State Architect.

1.4 PRELIMINARY PROCEDURES

- A. The Architect or School District may initiate changes by submitting a Request For Quotation. The request will include:

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1. Detailed description of the Change, Products, and location of the change in the Project. Changes may include additions and deletions from the Contract.
 2. Supplementary or revised Drawings and Specifications.
 3. The projected time span for making the change and a specific statement as to whether overtime work is, or is not, authorized.
 4. A specific period of time during which the requested price will be considered valid.
 5. Such request is for information only, and is not an instruction to execute the changes, nor to stop Work in progress.
- B. Contractor may initiate changes by submitting a written Allowance Usage Request or Proposed Change Order Request to the Architect or School District containing:
1. Description of the proposed change.
 2. Statement of the reason for making the changes.
 3. Statement of the effect on the Contract Sum/ Contract Price and the Contract Time.
 4. Statement of the effect on the Work of separate contractors with breakdown of costs for labor, materials and equipment.
 5. Documentation supporting any change in Contract Sum/ Contract Price or Contract Time, as appropriate.

1.5 CONSTRUCTION CHANGE DIRECTIVES

- A. In lieu of Proposal Request, the School District through the Construction Manager may issue, a Construction Change Directive (also referred to as an Immediate Change Directive in the General Conditions) for Contractor to proceed with a change which shall state a basis for adjustment, if any, in the Contract Sum/ Contract Price or Contract Time, or both.
- B. Authorization will describe changes in the Work, both additions and deletions, with attachments of revised Contract Documents to define details of the change, and will designate the method of

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determining any change in the Contract Sum/ Contract Price and any change in Contract Time.

- C. The School District and Architect will sign and date the Construction Change Directive as authorization for the Contractor to proceed with the changes.
- D. Contractor may sign and date the Construction Change Directive to indicate agreement with the terms therein.

1.6 DOCUMENTATION OF PROPOSALS AND CLAIMS

- A. Support each quotation for a lump-sum proposal, and for each unit price which has not previously been established, with sufficient substantiating data to allow the Architect/Engineer and School District to evaluate the quotation.
- B. On request provide additional data to support time and cost computations:
 - 1. Labor required in hours with unit costs.
 - 2. Equipment required.
 - 3. Products required in units.
 - a. Recommended source of purchase and unit cost.
 - b. Quantities required.
 - 4. Taxes, insurance and bonds.
 - 5. Credit for Work deleted from Contract, similarly documented.
 - 6. Overhead and profit.
 - 7. Justification for any change in Contract Time.
- C. Support each claim for additional costs, and for work done on a time and material basis, with documentation as required for a lump-sum proposal, plus additional information:
 - 1. Name of the School District's authorized agent who ordered the work, and date of the order.
 - 2. Dates and times work was performed, and by whom.

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3. Time record, summary of hours worked, and hourly rates paid.
 4. Receipts and invoices for:
 - a. Equipment used, listing dates and times of use.
 - b. Products used, listing of quantities.
 - c. Subcontracts.
- D. Document requests for Substitution of Products as specified in Section 01 63 00.

1.7 CONSTRUCTION CREDITS

- A. Work deleted and no work has been completed by the Contractor: Work deleted from the contract is to be credited back to the District and subtracted from the contract amount. Credits are to be included in Change Orders.
1. Contractor shall credit back to the District total value for the work deleted from the contract. Cost of credits shall be determined by the amount stated in the Contractor's Schedule of Values.
 2. Where the value of credits cannot be determined from the Contractor's Schedule of values, total value of the credit is to be determined by the cost of materials, labor, overhead and profit, insurance, bonds, etc. All General Contractor, Subcontractor and Material Supplier levels of the Contract are to be included in the total value of credits back.
 3. No amount at any level of the contract shall be withheld from credits for overhead and profit, insurance, bonds, time delays, construction schedule changes and administrative expenses.
- B. Work deleted and a portion of the work has been completed by the Contractor: Work deleted from the contract is to be credited back to the District and subtracted from the contract amount. Credits are to be included in Change Orders.
1. Contractor shall credit back to the District the total value of the work deleted from the contract less any work already

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completed on the credit item. Cost of credits shall be determined by the amount stated in the Contractor's Schedule of Values less any work already completed. Completed work may include cost of shop drawings, submittals, site preparation, partially completed work on the credit item or other expenses related to the item.

2. Where the value of credits cannot be determined from the Contractor's Schedule of values, total value of the credit is to be determined by the cost of materials, labor, overhead and profit, insurance, bonds, etc. All General Contractor, Subcontractor and Material Supplier levels of the Contract are to be included in the total value of credits back.
3. An amount equal to the percentage of work already completed on the deleted item may be withheld from credits back for overhead and profit, insurance, bonds, construction schedule adjustments and administrative expenses, as indicated in the General Conditions (Section 00700).

1.8 PREPARATION OF CHANGE ORDERS

- A. The Architect or Construction Manager will prepare each Change Order.
- B. Change Order will describe changes in the Work, both additions and deletions, with attachments of revised Contract Documents to define details of the change.
- C. Change Order will provide an accounting of the adjustment in the Contract Sum/ Contract Price and in the Contract Time.

1.9 LUMP-SUM/FIXED PRICE CHANGE ORDER

- A. Content of Change Orders will be based on either:
 1. The School District's Proposal Request and Contractor's responsive Proposal as mutually agreed with the School District.
 2. Contractor's Proposal for a change, as recommended by the School District or their authorized agent.
- B. The School District, Division of the State Architect and Architect or Engineer in responsible charge will sign and date the Change

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Order as an authorization for the Contractor to proceed with the changes.

- C. The Contractor will sign and date the Change Order to indicate agreement with the terms therein.

1.10 UNIT PRICE CHANGE ORDER

- A. Content of Change Orders will be based on either:
 - 1. The School District's definition of the scope of the required changes.
 - 2. Contractor's Proposal for a change, as recommended by the School District or Authorized Agent.
 - 3. Survey of completed work.
- B. The amounts of the unit prices to be:
 - 1. Those stated in the Agreement.
 - 2. Those mutually agreed upon between School District and Contractor.
- C. When quantities of each of the items affected by the Change Order can be determined prior to start of the work:
 - 1. The School District and Architect or Engineer in responsible charge will sign and date the Change Order as authorization for Contractor to proceed with the changes.
 - 2. Contractor is to sign and date the Change Order to indicate agreement with the terms therein.
- D. When quantities of the items cannot be determined prior to start of the work:
 - 1. The School District through the Architect will issue a Construction Change Directive directing the Contractor to proceed with the change on the basis of unit prices, and will cite the applicable unit prices.
 - 2. At completion of the change, the School District or its authorized agent will determine the cost of such work based on the unit prices and quantities used.

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3. The Contractor shall submit documentation to establish the number of units of each item and any claims for a change in Contract Time.
4. The School District, Division of the State Architect and Architect or Engineer in responsible charge will sign and date the Change Order as authorization for the Contractor to proceed with the Changes.
5. The Contractor will sign and date the Change Order to indicate agreement with the terms therein.

1.11 TIME AND MATERIALS CHANGE ORDER/CONSTRUCTION CHANGE DIRECTIVE:

- A. The School District through the Architect will issue a Construction Change Directive directing Contractor to proceed with the changes
- B. At completion of the change, Contractor shall submit itemized accounting and supporting data as provided in the Article 1.6, "Documentation of Proposals and Claims," of this Section.
- C. The School District or its authorized representative will determine the allowable cost of such work, as provided in General Conditions and Supplementary Conditions.
- D. The School District, Division of the State Architect and Architect or Engineer in general responsible charge will sign and date the Change Order to authorize the change in Contract Sum/ Contract Price and in Contract Time.
- E. The Contractor will sign and date the Change Order to indicate agreement with the terms therewith.

1.12 INSTRUCTIONS

- A. Architect's Supplemental Instructions:
 1. Minor changes in the work shall be carried out in accordance with supplemental instructions issued in accordance with the Contract Documents without change in Contract Sum/ Contract Price or Contract Time.
 2. The Architect will issue, sign, and date Supplemental Instructions.

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3. The Contractor will sign and date Supplemental Instructions to indicate acceptance of minor changes consistent with the Contract Documents and return signed copy to Architect.

1.13 CORRELATION WITH CONTRACTOR'S SUBMITTALS

- A. Periodically revise Schedule of Values and Request for Payment forms to record each change as a separate item of Work and to record the adjusted contract amounts.
- B. Periodically revise the Construction Schedule to reflect each change in Contract Time.
- C. Revise sub-schedules to show changes for other items of work affected by the changes.
- D. Upon completion of work under a Change Order, enter pertinent changes in Record Documents.

1.14 FORMS

- A. Submit Proposal Request typed on AIA Document G709. A Copy of this form may be obtained from the local American Institute of Architects, Chapter Office
- B. Submit Change Orders typed on the Change Order Form included in this Project Manual. Form is included in General Conditions and at the end of this Section.
- C. Submit Potential Change Order on the Potential Change Order Form included in this Project Manual. Form is included in General Conditions and at the end of this Section
- D. Submit Supplemental Instructions typed on the form included in this Project Manual on 01 30 50-24, Requests For Information (RFI's).
- E. Immediate Change Directive Form is included in the Supplementary General Conditions.

PART 2 – PRODUCTS - (Not Applicable)

PART 3 – EXECUTION - (Not Applicable)

END OF SECTION

COMPTON COMMUNITY COLLEGE DISTRICT

PAYMENT PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section specifies administrative and procedural requirements governing the Contractor's Applications for Payment.
- B. Submit applications for payment to Construction Manager in accordance with the schedule established by the conditions of the Contract and Agreement between Owner and Contractor.
- C. The Contractor's Construction Schedule and Submittal Schedule are included in Section "Submittals".
- D. The Contractor agrees to provide an updated certified "As-Built" with every pay application both "Hard Copy" and electronic copy that is approved by the Architect/ Engineer, Inspector of Record, and the Construction Manager.

1.2 SCHEDULE OF VALUES

- A. Coordinate preparation of the Schedule of Values with preparation of the Contractor's Construction Schedule.
 - 1. Submit the Schedule of Values to the Construction Manager at the earliest feasible date, but in no case later than 10 days before the date scheduled for submittal of the initial Application for Payment.
- B. Format and Content: Use the Project Manual Table of Contents as a guide to establish the format for the Schedule of Values.
 - 1. Identification: Include the following Project identification on the Schedule of Values:
 - a. Project name and location.
 - b. Name of the Architect/ Engineer.
 - c. Project number.
 - d. Contractor's name and address.

COMPTON COMMUNITY COLLEGE DISTRICT

- e. Date of submittal.
2. Arrange the Schedule of Values in a tabular form with separate columns to indicate the following for each item listed:
 - a. Generic name.
 - b. Related Specification Section.
 - c. Name of subcontractor.
 - d. Dollar value.
 - e. Percentage of Contract Sum/ Contract Price to the nearest one-hundredth percent, adjusted to total 100 percent.
3. Provide a breakdown of the Contract Sum/ Contract Price in sufficient detail to facilitate continued evaluation of Applications for Payment and progress reports. Break principal subcontract amounts down into specific line items.
4. Round amounts off to the nearest whole dollar; the total shall equal the Contract Sum/ Contract Price.
5. For each part of the Work where an Application for Payment may include materials or equipment, purchased or fabricated and stored, but not yet installed, provide separate line items on the Schedule of Values for initial cost of the materials, for each subsequent stage of completion, and for total installed value of that part of the Work.
6. Schedule Updating: Update and resubmit the Schedule of Values when Change Orders or Construction Change Directives result in a change in the Contract Sum/ Contract Price.

1.3 APPLICATIONS FOR PAYMENT:

- A. Each Application for Payment shall be consistent with previous applications and payments as certified by the Architect/ Engineer and paid for by the School District.
- B. Payment Application Times: Each progress payment date is as indicated in the Agreement. The period of construction Work

COMPTON COMMUNITY COLLEGE DISTRICT

covered by each Application or Payment is the period indicated in the Agreement.

- C. Payment Application Forms: Use AIA Document G702 and Continuation Sheets G 703 as the form for Application for Payment.
- D. Application Preparation: Complete every entry on the form, including notarization and execution by person authorized to sign legal documents on behalf of the School District. Incomplete applications will be returned without action.
 - 1. Entries shall match data on the Schedule of Values and Contractor's Construction Schedule. Use updated schedules if revisions have been made.
 - 2. Include amounts of Change Orders and Construction Change Directives issued prior to the last day of the construction period covered by the application.
 - 3. Transmit each copy with a transmittal form listing attachments, and recording appropriate information related to the application in a manner acceptable to the Engineer and Construction Manager.
 - 4. When the Architect/ Engineer finds the application completed and correct will transmit a certificate for payment to Owner with a copy to the Contractor.
- E. Lien Releases: With each Application for Payment submit Lien Releases from subcontractors or sub- subcontractors and suppliers for the construction period covered by the previous application.
 - 1. Submit partial Lien Releases on each item for the amount requested, prior to deduction for retainage, on each item.
 - 2. When an application shows completion of an item, submit final or full Lien Releases.
 - a. Submit final Application for Payment with or preceded by final Releases from every entity involved with performance of Work covered by the application that could lawfully be entitled to a lien.
 - 3. Waiver Forms: Submit waivers of lien on forms, and executed in a manner, acceptable to the School District.

COMPTON COMMUNITY COLLEGE DISTRICT

- F. Initial Application for Payment: Administrative actions and submittals that must precede or coincide with submittal of the first Application for Payment include, without limitation, the following (see also General Conditions):
1. List of subcontractors.
 2. Schedule of Values.
 3. Contractor's Construction Schedule (preliminary if not final).
 4. Copies of authorizations and licenses from governing authorities for performance of the Work.
 5. Certificates of insurance and insurance policies.
 6. Performance and payment bonds (if required).
- G. Application for Payment at Substantial Completion: Upon Substantial Completion, submit an Application for Payment.
1. Administrative actions and submittals that shall proceed or coincide with this application include, without limitation, the following (see also General Conditions):
 - a. Project inspector's status of completion report.
 - b. Warranties (guarantees) and maintenance agreements.
 - c. Test/adjust/balance records.
 - d. Maintenance instructions.
 - e. Meter readings.
 - f. Start-up performance reports.
 - g. Change-over information related to Owner's occupancy, use, operation and maintenance.
 - h. Final cleaning.
 - i. List of incomplete Work, recognized as exceptions to the Certificate of Substantial Completion.

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- H. Final Payment Application: Administrative actions and submittals that must precede or coincide with submittal of the final payment Application for Payment include, without limitation, the following (see also General Conditions):
1. Completion of Project closeout requirements.
 2. Completion of items specified for completion after Substantial Completion.
 3. Assurance that unsettled claims will be settled.
 4. Assurance that Work not complete and accepted will be completed without undue delay.
 5. Transmittal of required Project construction records to Owner.
 6. Removal of temporary facilities and services.
 7. Removal of surplus materials, rubbish and similar elements.
 8. Submit the final complete "As-builts" both hard copy and electronic copies with proper electronic titles for each page.

PART 2 – PRODUCTS - (Not Applicable)

PART 3 – EXECUTION - (Not Applicable)

END OF SECTION

COMPTON COMMUNITY COLLEGE DISTRICT

POST BID INTERVIEW FORM

CONSTRUCTION MANAGER FIRM

PCM3, Inc.
1111 E. Artesia Blvd.
Compton, CA 90221

BIDDER: _____

DATE: _____ TIME: _____ PHONE # _____

I. INTRODUCTIONS: (SIGN IN BELOW)

A. Present

_____	_____
CONTRACTOR	CONTRACTOR
_____	_____
_____	_____
_____	_____
CONSTRUCTION MANAGER	CONSTRUCTION MANAGER

II. PROPOSED CONTRACT: _____

III. PURPOSE OF INTERVIEW IS TO ASSURE:

- | | | |
|--|-----|----|
| A. Contractor acknowledgment of a complete and accurate bid. | Yes | No |
| B. Contractor submission of a fair and equitable bid. | Yes | No |
| C. Fair comparisons of bid. | Yes | No |

Initials: _____
Contractor Construction Manager

COMPTON COMMUNITY COLLEGE DISTRICT

IV. CONTRACTUAL REQUIREMENTS:

- A. Do you understand you are a prime contractor? Yes No
- B. Can you meet all specified insurance requirements? Yes No
- C. You are required to obtain a Performance, and a Labor and Material Bond for 100% of the Contract price Yes No
1. Is this acceptable? Yes No
2. Will you provide bonds as stipulated? Yes No
3. Cost for bond: _____% Yes No
4. Is the cost of the bond in your base bid? Yes No
5. Is your insurance company California licensed? Yes No
- D. Acknowledged Receipt of Addenda _____1 _____2 _____3 _____4 _____5
- E. Acknowledged Receipt of Pre-Bid Clarification Questions Yes No
- F. Are any costs for addenda items included in your proposal (if applicable)? Yes No

V. SCOPE OF WORK:

- A. You have a complete understanding of your Scope of Work under the proposed Agreement Yes No
- B. You have re-reviewed the documents and understand the Scope of the Work. Are there any items that need to be identified or require clarification? Yes No

If yes, please identify item.

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

- Is (are) the cost(s), as applicable, included in your proposal items? Yes No
- C. Review bid alternates (if applicable) NONE Yes No
- D. Are you offering any unsolicited alternates? NONE Yes No

Initials: _____
Contractor Construction Manager

COMPTON COMMUNITY COLLEGE DISTRICT

1. _____
2. _____
3. _____

E. Are the plans and specifications clear and understandable to your satisfaction? Yes No

VI. VALUE ENGINEERING: (describe for District Consideration)

1. _____
_____ Add / Deduct _____
2. _____
_____ Add / Deduct _____
3. _____
_____ Add / Deduct _____
4. _____
_____ Add / Deduct _____

AFFECTED TOTAL \$ _____

VII. SCHEDULE:

- A. Do you acknowledge and agree to the stipulated completion dates and milestones in the Contract? Yes No
1. Will you provide a detailed construction schedule to CONSTRUCTION MANAGER within the required three (3) days, per the Contract? (Section 00700) Yes No
 2. Can you expedite the schedule without impact to others? Yes No
 3. It is understood the Project schedule is critical. Can you accelerate any and all schedule activities if the requirement occurs? Yes No
If not, what must change and why? _____

Initials: _____
Contractor Construction Manager

COMPTON COMMUNITY COLLEGE DISTRICT

- B. Identify critical materials, deliveries and dependencies, including Owner Furnished items that could affect the completion of your work. Yes No

1. _____
2. _____
3. _____

- C. You have reviewed Section 01 43 80, CONSTRUCTION SCHEDULE and you understand your work must be completed in accordance with the **Master Schedule**. You further understand the District **MAY** assess liquidated damages if you fail to meet the Master Schedule requirements. You further understand delays by you may cause other contractors to be delayed, and that you **WILL** accelerate your work upon written direction by the CONSTRUCTION MANAGER.

CRITICAL DATES	
PROJECT COMPLETION	<u>Milestone Dates</u>
Notice of Award	12/11/19
All Submittals received by Construction Manager	15 Days After Notice of Award
All Shop Drawings received by Construction Manager	15 Days After Notice of Award
Provide Detailed Construction Schedule	15 Days After Notice of Award
Mobilize	12/16/19
Construction Completed by	06/30/20
Final Cleanup, Punchlist, and Closeout	06/30/20
You agree that failure to meet the date is just cause for the DISTRICT to assess and retain Liquidated Damages in accordance with the Contract Documents.	

VIII. CONTRACTOR COMMENTS / SUGGESTIONS:

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

Initials: _____
 Contractor Construction Manager

COMPTON COMMUNITY COLLEGE DISTRICT

IX. CONTRACTOR

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

Company Name _____

Signature: _____ Title: _____

Date: _____

X. CONSTRUCTION MANAGER

Signature: _____ Title: _____

Date: _____

XI. Witness:

Signature: _____

Date: _____

END OF SECTION

Initials: _____
Contractor

Construction Manager

CONSTRUCTION PROCEDURE MANUAL

COMPTON COMMUNITY COLLEGE DISTRICT

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COMPTON COMMUNITY COLLEGE DISTRICT

Construction Procedures Manual

I. INTRODUCTION

This Construction Procedures Manual has been developed for the Compton Community College District.

The purpose of this Manual is to provide the Owner, the Architect, Engineer, Inspector and Contractors detailed information concerning the specific project requirements and procedures.

This manual delineates lines of authority and responsibility of the team members associated with this Project.

Questions or suggested changes to this manual may be addressed to the Construction Manager, at 1111 E. Artesia Blvd., Compton, CA 90221

SHOULD INCONSISTENCIES OR DISCREPANCIES EXIST BETWEEN THIS MANUAL AND THE CONTRACT DOCUMENTS (INCLUDING THE GENERAL CONDITIONS); THE CONTRACT DOCUMENTS (INCLUDING THE GENERAL CONDITIONS) WILL TAKE PRECEDENCE.

COMPTON COMMUNITY COLLEGE DISTRICT

Construction Procedures Manual

II. PROJECT PROCEDURES

A. COMMUNICATIONS

1. In carrying out the terms of the Contract, the Owner and the Architects/Engineer will interact with the Contractors through the Construction Manager.
2. All correspondence, shop drawings, submittals, RFIs etc. are to be processed and submitted through the Construction Manager.
3. All correspondence, shop drawings, submittals, RFIs etc. shall reference the Project by name and Contract number.
4. The Construction Manager is the point of contact for all Project communications.

B. MEETINGS

1. **Pre-Construction Meeting** - (Section 01 31 00)*

After award of the Contract, the Construction Manager will schedule a "Pre-Construction Meeting" to be held at a time and location designated by the Construction Manager. **An authorized representative of Contractor MUST attend the "Pre-Construction" meeting.** Minutes of the meeting will be prepared and distributed by the Construction Manager

2. **Weekly Project Meeting** - (Section 01 31 00)*

- a. The Construction Manager will conduct a weekly Project meeting in the on site office.
- b. Contractor with crews on site and upcoming work must attend weekly meetings.
- c. Persons required to attend the weekly Project meetings include Contractor's supervisory personnel, subcontractor personnel, (as appropriate), the Construction Manager, A/E, and others as requested by the Construction Manager. The Owner or User personnel may attend at any time.

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Construction Procedures Manual

- d. The Contractor(s) shall bring any documentation as may be required in order to accomplish a joint review and status of the Project activities.
- e. Contractor(s) shall prepare a two week "look ahead" schedule for review at each meeting. The schedule shall be prepared in accordance with the scheduling section of this manual and will be reviewed with the contract schedule at each weekly meeting.

3. Special Project Meetings

The Construction Manager may call a Special Project Meeting at any time during the course of the Project. Special Project Meetings, if deemed necessary, shall include representatives of the Contractor(s) and subcontractors as requested in order to provide an adequate line of communication to discuss problems and/or solutions that are common to the Project.

C. SITE RULES

1. The Compton Community College District Campus is Non-Smoking and Drug Free.
2. The Compton Community College District Campus is alcohol free.
3. All personnel are required to wear appropriate protective clothing, work shoes, and safety equipment at all times.
4. All personnel shall restrict their behavior, their language and their demeanor so as to avoid harassment to students and faculty.
5. Violations of Site Rules may result in permanent banning from the Project.

D. PROJECT DOCUMENTS All Construction Manager Document Control will be administered utilizing Prolog 9.5 (or later) software.

1. SUBMITTALS - (Specification Section 01 33 00) *

- a. Contractor shall submit all shop drawings, samples and product data through the Construction Manager within the time requirements set forth in the General Conditions.

* References are to Specification Sections; refer to section for more detailed requirements.

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- b. Every Submittal shall be made to the Construction Manager at the Project site, using the enclosed submittal form. A separate form must be filled out for each submittal. At a minimum, every submittal shall contain the following information and any other information required by the General Conditions:
1. Project Name
 2. Contractors Name & Address
 3. DSA Application Number _____ and File Number _____ for each school.
 4. Submittal Number according to the Submittal Registry.
 5. Submittal Date
 6. Specification and/or Drawing Reference.
 7. Contractor Name and Address
 8. Index of Items Submitted
 9. Number of Copies.

Each submittal must be complete in all forms to allow review without further contact with the Contractor.

- c. **CONTRACTOR WILL STAMP AND SIGN SUBMITTALS, SHOP DRAWINGS, ETC. THAT HE HAS REVIEWED THE ITEMS SUBMITTED, AND CERTIFIES THE ITEMS ARE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, AND THAT EACH HAS BEEN CHECKED FOR DIMENSIONS AND RELATIONSHIPS WITH WORK OF ALL OTHER CONTRACTORS AND TRADES INVOLVED.**
- d. Upon receipt, the Construction Manager will log each submittal. The Construction Manager may reject any submittal if it is, in his or her judgment, incomplete or inadequate. In such case, one copy of the rejected submittal will be retained by the Construction Manager with remaining

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copies returned to the Contractor with the reason for rejection cited.

- e. All Submittals shall be numbered by the Contractor as follows:

Start with the Submittal number, followed by the complete specification section number of the item submitted. For example, assuming Reinforcing Steel is required by Specification Section 00 33 00.3.2 and it is the first submittal, the Submittal number for this example is: 0001-003300.2.3. In the event there is a revision required to a submittal, the re-submittal uses the same number as the original, appended with "Rev. 1". The Submittal example then would read: 0001-003300.2.3 - Rev. 1.

- f. Upon completion of the preliminary review, the Construction Manager will transmit acceptable submittals to the A/E for review and comment.

E. A/E REVIEW COMMENTS

- 1. The A/E will review all submittals and, where appropriate, make written commentary. The A/E's comments will be similar to the following:
 - a. "NO EXCEPTIONS TAKEN" - the Contractor may proceed with work covered by the submittal.
 - b. "MAKE CORRECTIONS NOTED" - The Contractor may proceed with the work, provided the Contractor proceeds in accordance with the notes and comments on the submittal.
 - c. "REVISE and RESUBMIT" - the Contractor shall NOT begin any work covered by the submittal until a revision or correction to the submittal has been re-submitted, reviewed and returned to the Contractor.
 - d. "REJECTED" - the Contractor shall not begin any work covered by the submittal until a new submittal has been prepared, submitted and reviewed.

F. SUBMITTAL & SHOP DRAWING QUANTITIES

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1. Submittals, Shop Drawings and Product Data shall be submitted in the following minimum quantities:
 - a. SAMPLES: Three or more samples.
 - b. SHOP DRAWINGS: One (1) reproducible and seven (7) copies.
 - c. PRODUCT DATA: Seven (7) copies.

G. DISTRIBUTION OF REVIEWED SUBMITTALS

1. SHOP DRAWINGS - Seven Sets
One (1) reproducible and One (1) copy to Contractor
One (1) copy retained by Architect
One (1) copy retained by the Consultant/Engineer
One (1) copy retained by the DSA Inspector
Two (2) copies to the Construction Manager
One (1) copy to the District
2. PRODUCT DATA - Seven Sets
Three (3) sets to Contractor
One (1) copy retained by Architect
One (1) copy retained by the Consultant/Engineer
One (1) copy retained by the DSA Inspector
One (1) copy to the Construction Manager

If Contractor requires additional reviewed copies of shop drawings or product data, he shall print copies from the reproducible at Contractor's expense.

Fabrication or other work performed in advance of receipt of reviewed drawings, samples or test certifications will be entirely at the Contractor's risk.

H. REQUEST FOR INFORMATION (RFI)

Should the Contractor(s) require clarification or additional information of the plans or specifications, he will direct the request to the Construction Manager on the RFI form as provided by the Construction Manager. Sample forms are in the appendix.

Each RFI will be numbered sequentially. Contractor shall be responsible for maintaining his own "log". The Construction Manager will maintain the

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Construction Manager's RFI log, and each week, the Construction Manager RFI Log will be distributed & discussed at the weekly meeting.

The RFI shall describe thoroughly, the problem or clarification being requested and a suggested solution. The description provided should be adequate and complete to permit a written response without additional communication with the Contractor. The Contractor shall attach related sketches, information or correspondence which may have been received from subcontractors or vendors on the subject. Each attachment to the RFI shall have the RFI # marked plainly on the attachment pages are to be numbered "Page ___ of ___." In instances where the Contractor believes there may be a conflict between elements of the plans and specifications, he should identify the conflict and indicate the manner in which he interpreted the sections in preparing his bid.

No RFI will be accepted without proper reference to Plan Drawings, Shop Drawings and / or Specification Sections, and all areas completely filled out.

The contractor shall list potential solutions to expedite resolution by the Architect and Owner and the contractor shall insure that all line items in the RFI Form are completely filled out before submitting to the Construction Manager.

The Construction Manager will review the RFI and will either:

1. Return the RFI to the Contractor for additional information or response.
2. Forward the RFI to the Architect of Record for response, copying the Project Inspector in accordance with the below timelines.
3. Provide the response within twenty-four (24) hours and return to the Contractor, with copies to the Architect of Record and Project Inspector. RFI's answered by the CM are logged as official RFI's and subject to all of the below conditions.

The timeline scenario for a routine RFI shall be as follows:

1. CM will verify all RFI's for format and content prior to any disposition and may return to sender for edit, clarification and completeness.
2. When a Contractor submits an RFI to the CM it must be reviewed within twenty-four (24) hours. If the RFI is deemed legitimate by

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the CM and In the event that the CM is not able to adequately answer the RFI in the twenty-four (24) hour period it must be immediately transmitted to the Architect of Record.

3. Once the Architect receives the RFI from the CM, he must respond or pass the RFI on to the proper consultant within three (3) days. (In a Modernization project, the Architect must answer or pass the RFI on to a Consultant with in twenty-four (24) hours.)
4. Consultants are given a maximum of seven (7) days to respond or show cause for delay. (For a Modernization Project this period is shortened to three (3) days.)
5. The appropriate recipient of the RFI will endeavor to provide the response as soon as possible within the above time constraints.
6. When the Construction Manager receives a response back from the Architect, the answer should be reviewed and transmitted to the Contractor as soon as possible and within twenty-four (24) hours. A sixty (60) minute turnaround is preferred.
7. All RFI's properly executed, answered and reviewed must be posted on plans within twenty-four (24) hours of receipt by the CM.
8. In the event an RFI goes unanswered for a period of thirty (30) days or longer it shall be subject to weekly habeas corpus hearings, in which the CM, Architect, Project Inspector, and appropriate Consultant shall attend.

RFI's requiring critical response timing shall be duly annotated as to the urgency of the response date.

If the RFI review indicates a change or revision is necessary to the Contract Documents, the A/E will prepare appropriate drawings and/or specifications required to define the change or revision.

If the Contractor believes the clarification or direction provided by the response to the RFI will impact the cost or schedule of the Project, he shall provide prompt notification thereof to the Construction Manager in accordance with the General Conditions. Upon notification thereof to the Construction Manager, the Contractor shall prepare an Allowance Usage Request or Proposed Change Order, if approved by the District thru the Construction Manager, which shall be processed as outlined in the Change Order Procedure of this manual. In the event the Contractor fails

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to notify the Construction Manager, no consideration will be given to the Contractor for additional costs as outlined in the Change Order Procedure.

See also Project Coordination Section (01 31 00, 1.06 Requests for Information) regarding frivolous Requests for Information.

I. SCHEDULES

The Contractor shall furnish to the Construction Manager any required schedules that addresses the work in his Contract(s) in accordance with the General Conditions. The schedules shall be in a format as approved by the Construction Manager, and as a minimum, shall include, without limitation, the following (see also General Conditions):

1. Detail of activities required for their mobilization and start of construction.
2. Activities of other Contractors which must be completed prior to starting various components of other work.
3. A plan for completion of work in sufficient detail to allow observation and monitoring by the Construction Manager. Any activity longer than five (5) working days shall be broken down into phases of five (5) working days or less in length.
4. List activities which must be complete for succeeding contractors to start their work.
5. Show submittals and shop drawing preparation and review time.
6. Long lead procurement requirements.
7. Include all necessary and required DSA Inspections in Schedule.

The Contractor shall prepare schedules in a Critical Path Method (CPM) format as required by the General Conditions. Contractor will review the logic and duration of activities affecting his work. The Construction Manager will conduct a meeting with Contractor(s) to incorporate revisions and issue the approved construction schedule.

The schedule will become the basis for determining completion of the Project and will be reviewed at each weekly meeting.

Contractor will prepare and submit at each weekly meeting a Short Interval Schedule (SIS). The SIS shall be a two (2) week Projection of

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activities currently in progress or to be started within the following two (2) week period (use form within this manual).

The SIS will be reviewed against the base Contract Schedule each week to evaluate the progress of the work. Contractor shall submit a recovery schedule in the event his work falls behind the approved construction schedule.

J. INSPECTION & TESTING

Contractor shall be responsible for maintaining the necessary licenses required for the completion of the work.

The Owner will pay for State assessed plan check fees and inspection fees, unless otherwise indicated.

Contractor and Subcontractor will be responsible for obtaining and paying for any required City Business licenses.

The on-site DSA Inspector will make normal building and code compliance inspections. Contractor will be responsible for compliance with all requirements of applicable codes per the Contract Documents. Contractor shall inform the Construction Manager at least 2 working days prior to scheduling required inspections. Use Inspection Request Form supplied in the appendix of this manual and also complete and submit the required DSA Form 156.

Inspection, testing, and sampling will be performed as specified in the General Conditions and the specific divisions of the Contract Documents. The Owner, through the Construction Manager, will contract for performance of soil, concrete, steel, grout and mortar testing. Review the Contract Documents for Contractor testing and sampling requirements. In all cases where testing is being performed or samples being taken, the Construction Manager will be given notification pursuant to Contract Document requirements. Contractor shall also timely request special inspections as required by DSA and complete and submit the required DSA verified report forms.

If inspection or testing discloses errors, omissions, inconsistencies, or deficiencies during construction activities, the Contractor will be immediately notified using the "Notice of Non-Conforming Work" form. If corrective action is not apparent, the Construction Manager may request the Contractor to propose a corrective action plan.

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Where utilities (electric, water, drainage, sewer, gas, etc.) must be disrupted by construction activity, each Contractor shall notify the Construction Manager in writing at least fourteen (14) calendar days prior to the disruption, to be reflected on the 2 Week Look Ahead Schedule.

All **INSPECTION REQUESTS** will be channeled through the Construction Manager to the DSA Inspector (PI). The Construction Manager shall log and monitor time, date and subject of all Inspection Requests utilizing an Inspection Log, and maintaining a binder additionally containing copies of above completed form, as well as copies of Inspection Request Response form executed by the PI. Photographs of area or items to be inspected will be taken and kept as part of the permanent daily record of the project. Inspection log must indicate the title/number of the photos and their permanent file location.

K. VERIFIED REPORTS are required.

Each Contractor shall submit the required DSA Verified Reports to the Construction Manager at the end of construction or as otherwise required by DSA.

Three (3) copies of the report with **Blue ink wet signatures** shall be submitted. Retention may not be paid if Verified Reports are not received. The Construction Manager will transmit the completed Verified Reports to the Inspector for transmittal to DSA and the Architect. Use DSA-6 form supplied in appendix or any updated form from DSA at the completion of the project. The Contractor is also required to submit any other required DSA Verified Reports during construction of the project as required by DSA.

L. SAFETY

Contractor shall have sole and complete responsibility for initiating, maintaining and supervising all safety precautions and programs in connection with this Project. In no case shall the Owner, the Construction Manager, the Architect, the Inspector or their agents, employees or representatives, have either direct or indirect responsibility for the means, methods, techniques, sequences or procedures utilized by the Contractor, or for safety precautions and programs in connection with the work.

Contractor will provide the Construction Manager a copy of his updated safety program prior to commencing the work.

Contractor must submit a Safety Plan to the District via the Construction Manager within thirty five (35) calendar days of the issuance of the Notice

COMPTON COMMUNITY COLLEGE DISTRICT Construction Procedures Manual

to Proceed per the General Conditions (Specification 00 72 00). Contractor will conform to all OCIP Regulations **where applicable**.

M. CHANGE ORDER AND ALLOWANCE USAGE PROCEDURE (Specification Section 00 72 00 Article 9)

The Owner, through the Construction Manager, may from time to time direct the Contractor to make changes in the work within the general scope of the Contract. All changes to the Contract will be implemented through written orders or directives prepared by the A/E and issued by the Construction Manager.

When the Construction Manager believes a change order to the construction documents is required that may involve a change in time or cost, he will request the A/E prepare a Bulletin and issue it to the Construction Manager. The A/E will sequentially number and date each Bulletin. The Construction Manager will attach an Allowance Usage Request (AUR) or Potential Change Order (PCO) form to the Bulletin requesting the Contractor to submit a proposal. The Proposal will fully describe the proposed change(s) to the Contract Documents, including sketches, new drawings, or revised specifications as required. The Construction Manager will maintain a log of all AUR/PCOs issued. The Construction Manager shall number each AUR/PCO. Sample AUR/PCO forms and work sheet are in the appendix.

Should the Contractor believe that conditions have changed or he has been directed to do additional work requiring a change in time or cost, he may request the Construction Manager to prepare a AUR/PCO delineating the changed condition along with the cost and/or time impact. If the Contractor intends to make claim for a change in the contract time or cost, he must give the Construction Manager written notice per contract documents after the occurrence of the event giving rise to the claim, or lose his rights to the cost recovery of the extra work arising from the claim.

Upon return of the AUR/PCO the Construction Manager will evaluate the Contractor's quotation for the work, using an estimate of time and cost impact prepared by the A/E or the Construction Manager. If the quotation is acceptable to the Construction Manager, the proposal will be forwarded to the Owner and the A/E. If the quotation is judged by the Construction Manager to be not acceptable, he will begin negotiations with the Contractor to come to an agreement as to the time and cost impact.

The Construction Manager reserves the sole right to notify the Contractor when there will be no further negotiations, and when an impasse exists

COMPTON COMMUNITY COLLEGE DISTRICT Construction Procedures Manual

between the Contractor and the Construction Manager and the work is declared to be in dispute.

The Owner and the Architect may issue through the Construction Manager an AUR/PCO which directs the Contractor to proceed with a change which will be included on a subsequent Change Order. The routing procedure will be the same as a change order. If the AUR/PCO directs work to proceed prior to agreement on a lump sum quotation, the Contractor shall prepare an Extra Work Report **each day** for signature by the Construction Manager and/or the Inspector. **Extra Work tickets not signed daily will not be paid for.**

The DSA and Architect must approve all Change Orders. The Construction Manager will review each Allowance Usage Request or Proposed Change Order with the A/E to determine the appropriate DSA approval process and whether the Change Order is a Category A (DSA Form 140) or Category B (DSA Form 141) Construction Change Document. The Contractor must comply with all DSA requirements for Change Orders and Construction Change Documents.

N. APPLICATION FOR PAYMENT

Application for Payment shall be made by the Contractor on a **monthly** basis for work completed on or before the **25th of each month.**

All Applications for Payment shall contain the approved detailed Schedule of Values submitted by the Contractor at the time of award. Applications shall be submitted on forms provided in the appendix. **No other form will be accepted.**

No later than the 25th of each month, Contractor shall submit a "Preliminary Pay Request" (pencil copy) to the Construction Manager for review. Only the Schedule of Values need be submitted. The "Preliminary Pay Request" shall include a detailed Schedule of Values showing percentages of work complete or scheduled to be complete through the end of the month. The Construction Manager, the A/E and Inspector will review and evaluate the "Preliminary Pay Request". Upon agreement of the amounts due the Contractor, the Contractor will prepare the Application for Payment, and submit seven (7) original copies (wet signature) of the Application to the Construction Manager, last working day of the month, for signatures by the Architect and the Inspector. After signatures are obtained, the Construction Manager will submit the Applications to the District for payment. The District will process the Application.

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Payment for materials delivered to the Project site but not yet incorporated in the work may be made, at the discretion of the Owner. Such materials must be stored at the Project site, properly stacked, crated, boxed, and, if necessary, covered and protected from weather. Documentation of cost shall be provided with the payment request for materials. No payment will be considered without the required documentation. See additional requirements in the General Conditions.

Change Orders, if applicable, shall not be billed until approval of school board is received.

EVERY pay application must be accompanied by a **CONDITIONAL Lien Release for the current application, and an UNCONDITIONAL Lien Release for the prior application. All Applications and Releases are to be NOTARIZED, and signatures are to be in BLUE ink.**

O. PAY ESTIMATE CHECK OFF PROCEDURE (INTERNAL)

1. Verify all Schedule of Values shown on second page agrees with Schedule of Values submitted by Contractor at start of Project.
2. Check all upper details, both pages, are correctly filled in, i.e. Contractor Name and Address, complete Project Name, Architect Name, pay period dates, and that contract date is shown. (Date of Contract Agreement.)
3. Verify all previous information is correctly transferred from last prior estimate. Verify all math calculations are correct on page two and the correct numbers are transferred to page one. Verify all math on estimate page #1.
4. Verify all approved Change Orders have been included in the estimate.
5. Verify Contractor signatures and notary signatures and stamp are on page #1.
6. Verify there is a Conditional Lien Release for the current payment request. If there has been a previous pay request, then verify there is also an Unconditional Lien Release for the previous estimate. These releases must be filled out and signed by the Contractor. The District will not pay if the releases are not in order.

COMPTON COMMUNITY COLLEGE DISTRICT Construction Procedures Manual

7. Verify Preliminary Notice information against amounts billed and Request Lien Releases as necessary.
8. As-built drawings are updated and approved by PI.
9. Signed Verification of Certified Payroll Records Submittal to Labor Commissioner Form received.
10. OCIP clearance is obtained – no outstanding issues.
11. Once all of the above is correct, then transfer the complete original to the Construction Manager for signatures by the Architect and the PI. The Architect should be available for signatures, within a reasonable time.
12. After all signatures are obtained, CM signs as approved for payment, then copy for PCM3 file, attach a Letter of Transmittal and have Construction Manager take to district with spread sheet showing all estimates to date for signature by District and distribution to Accounting Department.

P. POSTING OF PROJECT DOCUMENTS (PLANS AND SPECIFICATIONS)

1. All Construction Managers will maintain an up-to-the-day posted set of plans and Specifications for each project at all times. This is essential to the continuity of the project during construction and for archiving purposes. This "Posted Set" shall not leave the Construction Trailer for any reason, and must be kept in a secure location and scrupulously maintained and preserved at all times.
2. Posting must be done within (24) twenty-four hours of the receipt of a completed, signed, change to the Contract Documents.
3. Items that must be posted:
 - a. All addendums to the bid set
 - b. All Requests for Information (RFI)
 - c. All Instructional Bulletins (IB)
4. For consistency the following color scheme for posting shall be followed throughout the District:

COMPTON COMMUNITY COLLEGE DISTRICT Construction Procedures Manual

- a. All pre-bid addendums to the bid set shall be posted on YELLOW paper.
 - b. All RFI's will be posted using 50% reduction and PINK paper.
 - c. All Instructional Bulletins will be posted using 50% reduction and GREEN paper.
5. All postings should be sufficiently clear and concise enough to indicate a definitive change to the bid documents. Postings that implement changes on more than one plan sheet or specification page must be posted in the multiple locations or a reference to that posting must be made, sufficient to guide a user to a substantial and correct conclusion.

Note: Use of 50% reduction is a vehicle for saving space. All postings should be located on the plan sheet or in the Specification Section referred to in the posted document. If frequency of posting is such that more room is needed it is permissible to insert blank sheets into the plans or blank pages into the Specifications. Posting on the reverse of the preceding plan sheet is not advised due to the possibility of replacement sheets.

Q. ITEM OF CHANGE (IOC) LOG TO BE KEPT AND MAINTAINED BY CONSTRUCTION MANAGER.

1. All changes to the Contract Documents are to be logged under separate cover in an Items of Change (IOC) Log and maintained on a continual updated basis.
2. Items in the IOC Log must correspond to items included in the Schedule of Values and be valuated based on given costs or good faith estimates.
3. The IOC Log matrix should include, but be not limited to: Item Number; Date; Description; Budget Revision; checklist for necessary Approvals; and indication of Inclusion in a Change Order.

END OF SECTION

**COMPTON COMMUNITY COLLEGE DISTRICT
Construction Procedures Manual**

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COMPTON COMMUNITY COLLEGE DISTRICT

Daily Construction Job Report

School Site: Cafeteria And Music Bldg. HVAC & Fire Alarm

CONTRACTOR _____

DATE

WEATHER _____

Time Work Started _____

SUPT./FOREMAN _____

Time Work Ended _____

WORK FORCE	Number of Hours					
WORKERS NAME	Foreman	Journeyman	Apprentice	Laborer	Operator	Other
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						
11.						
12.						
13.					TOTAL HOURS	
14.						
15.						

WORK DONE and MATERIALS DELIVERED

**COMPTON COMMUNITY COLLEGE DISTRICT
Construction Procedures Manual**

SUBMITTAL FORM

CM # _____ (For CM Use Only)

CCCD Bond Trailer
PCM3, Inc.
1111 E. Artesia Blvd.
Compton, CA 90221

**PROJECT: Cafeteria and Music Bldg.
HVAC & Fire Alarm**

PROJECT NO: CCC-059

SUBMITTAL

!!!!!!!!!!!!!!!

SUBMITTAL #

DATE: ____/____/____ **TITLE/Description:** _____

SPECIFICATION SECTION or DRWG. # : _____ **NO. COPIES SUBMITTED:** _____

NO. COPIES RETURNED: _____

TO: _____

DSA FILE NO: _____ **CONTRACTOR:** _____

ADDRESS: _____

DSA APP. NO: _____ **PHONE:** _____

ATTN.: _____

CONTRACTOR CERTIFIES: We have reviewed the attached submittal verifying products in this submittal, dimensions, adjacent work, and coordination of information is in accordance with the requirements of the work and contract documents, and approve this submittal (Reference Section 01330).

BY: _____
Contractor's Representative

DATE: ____/____/____

FOR USE BY ENGINEER:

ENGINEER'S STAMP:

- ____ **NO EXCEPTIONS TAKEN**
- ____ **MAKE CORRECTIONS NOTED**
- ____ **REVISE & RESUBMIT**
- ____ **REJECTED**

REMARKS: _____

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Construction Procedures Manual
SUBSTITUTION REQUEST FORM (AFTER BID)
Construction Manager # _____ (For CM Use Only)

DATE: _____ BID PACKAGE: _____

TO: _____

PROJECT: Cafeteria and Music Bldg. HVAC & Fire Alarm
 SPECIFIED ITEM:

Section	Page	Paragraph	Description
---------	------	-----------	-------------

The undersigned requests consideration of the following:

PROPOSED SUBSTITUTION: _____

Attached data includes product description, specifications, drawings, photographs, performance and test data adequate for evaluation of the request. Applicable portions of the data are clearly identified.

Attached data also includes a description of changes to the Contract Documents which the proposed substitution will require for its proper installation.

The undersigned certifies that the following paragraphs and any additional requirements in the General Conditions Article 3.10, unless modified by attachments, are correct:

1. The proposed substitution does not affect dimensions shown on drawings:
2. The undersigned will pay for changes to the building design, including engineering design, detailing, and construction costs caused by the requested substitution.
3. The proposed substitution will have no adverse affect on other trades, the construction schedule, or specified warranty requirements.
4. Maintenance and service parts will be locally available for the proposed substitution.
5. The proposed substitution is submitted within seven (7) calendar days after issuance of the Notice of Intent to Award.

The undersigned further states that the function, appearance, and quality of the proposed substitution are equivalent or superior to the specified item.

Submitted by: _____

Signature _____

Firm _____

Address _____

Remarks _____

Date _____

Telephone _____

Fax: _____

(For Use By The Design Consultant)

___ Accepted ___ Accepted as noted

___ Not Accepted ___ Received too late

Reviewed By _____

Date: _____

COMPTON COMMUNITY COLLEGE DISTRICT

INSPECTION REQUEST

DATE:	CONTRACTOR:
-------	-------------

SUB-CONTRACTOR/ TRADE: (if any)

DESCRIPTION OF REQUIRED INSPECTION:

INSPECTION LOCATION:	DATE REQUIRED:
	TIME REQUIRED:
PHONE:	

REQUESTED BY:	DATE:
TITLE:	SPECIAL INSTRUCTIONS:
SIGNATURE:	BATCH PLANT INSP. REQ'D: YES NO

INSPECTORS COMMENTS:	
DATE:	SIGNATURE:

SUBMIT TO (CM), 2 WORKING DAYS PRIOR TO DATE & TIME REQUIRED.

DATE & TIME RECEIVED BY CM:
CM. PROJECT MANAGER:

cc: CM File

COMPTON COMMUNITY COLLEGE DISTRICT

REQUEST FOR INFORMATION

PCM3 # _____ (For PCM3 Use Only)

(ALL LINE ITEMS MUST BE COMPLETED PRIOR TO SUBMITTAL)

TO: **Construction Manager** Ref No.:

RFI No.	
_____	_____
Bid Pkg.	RFI No.

FROM: _____ DWG. REF.: _____

EMAIL _____

PROJECT: **Cafeteria and Music Bldg. HVAC & Fire Alarm**

Spec. Ref: _____

Bid Pack: _____

Date: _____

Trade not BP No.

Description of Problem / Clarification / Information Required:

Drawings attached -

Proposed Solution:

Question By: _____

Date: _____

Response: _____

Response By: _____

Date: _____

Reviewed By: _____

Date: _____

COMPTON COMMUNITY COLLEGE DISTRICT

REQUEST FOR QUOTATION FORM

Project: RFQ CCC-059 Cafeteria and Music Bldg. HVAC & Fire Alarm

RFQ NO.: _____

DATE ____ / ____ / ____

BID PACKAGE NO.: _____

TO:

Please submit price quotation for the following work:

(Support Quotation with detailed cost breakdown and back-up materials.)

Reference Document, if any: _____

Price Quotation needed by: _____

Request submitted by: _____ DATE: ____ / ____ / ____

Construction Manager.

Parties agree and acknowledge the information in this Request for Quotation is for review purposes only. This Request for Quotation is not a request for, nor an authorization of additional work or an extension of the Contract period.

COMPTON COMMUNITY COLLEGE DISTRICT

ALLOWANCE USAGE REQUEST

CM # _____

PROJECT: CCC-059 CAFETERIA AND MUSIC BLDG. HVAC & FIRE ALARM

ALLOWANCE USAGE REQUEST — AUR# _____

TO: _____ DATE ISSUED: _____

FROM: _____ PRICING DUE BY: _____

PROJECT No.: _____ PROJECT NAME: _____

Please submit an itemized quotation for change in the contract sum and time incidental to the proposed modifications to the Contract Documents as described herein. Cost breakdown format shall be as specified including all back up documentation.

Change Item: _____

**THIS IS NOT A CHANGE ORDER NOR A DIRECTION TO PROCEED WITH THE WORK DESCRIBED HEREIN.
REFERENCE RFQ# _____ DESCRIPTION OF AUR:**

REQUESTED BY: A. Architect B. DSA Inspector C. Contractor D. Owner

COST IMPACT: A. NONE B. DEDUCT: \$ _____ C. ADD: \$ _____

TIME IMPACT: A. NONE B. DEDUCT _____ DAYS C. ADD: _____ DAYS
Submit justification for time impact per Article 9.5 in the General Conditions 00 72 00

APPROVAL OF THE AUR BY ALL PARTIES LISTED BELOW SERVES AS A NOTICE TO PROCEED.

cc: Contractor: BY: _____

District: BY: _____

Architect/Engineer BY: _____

Project Inspector BY: _____

Construction Manager BY: _____

COMPTON COMMUNITY COLLEGE DISTRICT

POTENTIAL CHANGE ORDER
CM # _____

PROJECT: CCC-059 CAFETERIA AND MUSIC BLDG. HVAC & FIRE ALARM

POTENTIAL CHANGE ORDER — PCO# _____

TO: _____ DATE ISSUED: _____

FROM: _____ PRICING DUE BY: _____

PROJECT No.: _____ PROJECT NAME: _____

Please submit an itemized quotation for change in the contract sum and time incidental to the proposed modifications to the Contract Documents as described herein. Cost breakdown format shall be as specified including all back up documentation.

Change Item: _____

THIS IS NOT A CHANGE ORDER NOR A DIRECTION TO PROCEED WITH THE WORK DESCRIBED HEREIN.
REFERENCE RFQ# _____ DESCRIPTION OF PCO:

REQUESTED BY: A. Architect B. DSA Inspector C. Contractor D. Owner

COST IMPACT: A. NONE B. DEDUCT: \$ _____ C. ADD: \$ _____

TIME IMPACT: A. NONE B. DEDUCT _____ DAYS C. ADD: _____ DAYS
Submit justification for time impact per Article 9.5 in the General Conditions 00 72 00

APPROVAL OF THE PCO BY ALL PARTIES LISTED BELOW SERVES AS A NOTICE TO PROCEED.

cc: Contractor: BY: _____

District: BY: _____

Architect/Engineer BY: _____

Project Inspector BY: _____

Construction Manager BY: _____

COMPTON COMMUNITY COLLEGE DISTRICT

**Allowance Usage Request/Proposed Change Order
CHANGES AND EXTRAS FORM**

The following format shall be used, as applicable by the District and the Contractor to communicate proposed additions and deductions to the Contract. A copy of the Allowance Usage Request and Proposed Change Order form is provided at the end of this Article.

	<u>EXTRA</u>	<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	_____	_____
(e) For Proposed Change Order and Allowance Usage Request: If Subcontractor performed Work, add Subcontractor's overhead and profit to portions performed by Sub-contractor, not to exceed fifteen percent (15%) of item (d).	_____	_____
(f) Subtotal	_____	_____

COMPTON COMMUNITY COLLEGE DISTRICT

	<u>EXTRA</u>	<u>CREDIT</u>
<p>3 a° For Proposed Change Order: General Contractor's Overhead and Profit: Not to exceed fifteen percent (15%) of Item (d) if Contractor performed the work. No more than five percent (5%) of Item (f) if Subcontractor performed the work. If work was performed by Contractor and Subcontractors, portions performed by Contractor shall not exceed fifteen percent (15%) if Item (d), and portions performed by Subcontractor shall not exceed five percent (5%) of Item (f)</p> <p>For Allowance Usage Request: Zero (-0-) percent markup per General Conditions Specification Section 00 73 00 Article 1.1.</p>	_____	_____
<p>3 j° Subtotal</p>	_____	_____
<p>(i) For Proposed Change Order: Bond not to exceed one percent (1%) of Item (d)</p> <p>For Allowance Usage Request: Zero (-0-) percent bond per General Conditions Specification Section 00 73 00 !!!Article 1.1.</p>	_____	_____
<p>(j) TOTAL</p>	_____	_____
<p>(k) Date / Time</p>	_____	_____

The undersigned Contractor approves the foregoing Allowance Usage Request or Proposed Change Order 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 Allowance Usage Request or Proposed Change Order, 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 Allowance Usage Request or Proposed Change Order shall be effective when approved by the Governing Board of the District.

COMPTON COMMUNITY COLLEGE 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.

INSTRUCTION SHEET

A. GENERAL INFORMATION:

The Payment Application and the Schedule of Values Sheet are designed to be used on a project where a Contractor has a direct Agreement with the Owner. **No Pay Applications will be accepted without updated approved "As-Builts".**

B. COMPLETING THE PAYMENT APPLICATION:

After the Contractor has completed the Schedule of Values Sheet, summary information should be transferred to the Payment Application.

The Contractor should sign the form have it notarized and submit it, together with the Schedule of Values, to the Architect. Seven signed, notarized originals should be submitted.

The Architect should review it and, if it is acceptable, complete the Architect's Certificate for Payment on this form. The completed form should be forwarded to the Owner.

C. COMPLETING THE SCHEDULE OF VALUES SHEET:

Heading: Complete the information here consistent with similar information on the Payment Application.

Columns A, B & C: These columns should be completed by identifying the various portions of the project and their scheduled value consistent with the schedule of values submitted to the Architect at the commencement of the Project or as subsequently adjusted. The breakdown may be by sections of the Work or by Subcontractors and should remain consistent throughout the Project. Multiple pages should be used when required.

Column C: This column should be subtotaled at the bottom when more than one page is used and totaled on the last page. Initially, this total should equal the original Contract Sum. The total of Column C may be adjusted by Change Orders during the Project.

Column D: Enter in this column the amount of completed Work covered by the previous application. This is the sum of columns D and E from the previous application. Values from column F (Materials Presently Stored) from prior payments should not be entered in this column.

Column E: Enter here the value of Work completed until the time of this Application, including the value of materials incorporated in the project, which were listed on the previous Application and Certificate for Payment under Materials Presently Stored (column F).

Column F: Enter here the value of Materials Presently Stored for which payment is sought. The total of the column **must** be recalculated at the end of each pay period. This value covers both materials newly stored for which payment is sought and materials previously stored which are not yet incorporated into the Project. Mere payments by the Owner for stored materials does not result in a deduction from this column. Only as materials are incorporated into the Project is their value deducted from this column and incorporated into column E (Work Completed—This Period).

Column G: Enter here the total of columns D, E and F. Calculate the percentage completed by dividing column G by column C.

Column H: Enter here the difference between column C (Scheduled Value) and column G (Total Completed and Stored to Date).

Column I: This column is normally used only for contracts where variable retainage is permitted on a line-item basis. It need not be completed on projects where a constant retainage is withheld from the overall contract amount.

Change Orders: Although Change Orders could be incorporated by changing the schedule of values each time a Change Order is added to the Project, this is not normally done. Usually, Change Orders are listed separately, either on their own form or at the end of the basic schedule. The amount of the original contract adjusted by Change Orders is to be entered in the appropriate location of the Payment Application.

D. MAKING PAYMENT

The Owner should make payment directly to the Contractor based on the amount certified by the Architect on the Payment Application. The completed form contains the name and address of the Contractor. Payment should not be made to any other party unless specifically indicated on this form.

APPLICATION AND CERTIFICATE FOR PAYMENT - AIA DOCUMENT G702/CMa (Instructions on next page) Page One of _____ Pages

TO: Compton Community College District
 CCCD PCM3 Bond Trailer
 1111 E. Artesia Blvd.
 Compton , CA 90221

Cafeteria and Music Bldg. HVAC & Fire Alarm

APPLICATION NO. _____

FROM _____
 ADDRESS _____

PERIOD TO: _____

Distribution to:
 OWNER
 ARCHITECT
 CONTRACTOR
 CONSTRUCTION MANAGER

CONTRACT FOR: _____

BID PACKAGE: _____

PROJECT NO: RFQ CCC-059

CONTRACT DATE: _____

CONTRACTOR'S APPLICATION FOR PAYMENT

CHANGE ORDER SUMMARY		ADDITIONS	DEDUCTIONS
Change Orders approved in previous months by Owner			
TOTAL			
Approved this Month			
Number	Date Approved		
TOTALS			
Net change by Change Orders			

The undersigned Contractor certifies that to the best of the Contractor's knowledge, information and belief the Work covered by this Application for Payment has been completed in accordance with the Contract Documents, that all amounts have been paid by the Contractor for Work for which previous Certificates of Payment were issued and payments received from the Owner, and that current payment shown herein is now due.

CONTRACTOR:
 BY: _____ Date: _____

ARCHITECT'S CERTIFICATE FOR PAYMENT

By: _____ DATE: _____
 INSPECTOR:
 By: _____ DATE: _____
 OWNER: Compton Community College District

By: _____ DATE: _____
 CONSTRUCTION MANAGER: PCM3, Inc.

Application is made for Payments as shown below, in connection with the Contract. Schedule of Values is attached.

1. ORIGINAL CONTRACT SUM _____
2. NET CHANGE ORDERS..... _____
3. CONTRACT SUM TO DATE..... _____
4. TOTAL COMPLETED & STORED TO DATE..... _____
 (Column G on SCHEDULE)
5. RETAINAGE:
 - a. ___5___ % Completed Work..... _____
 (Column D + E on SCHEDULE)
 - b. ___ % of Stored Material..... _____
 (Column F on Schedule of Values Sheet Total Retainage (Line 5a + 5b or Total in Column 1 of Schedule of Values Sheet)..... _____
6. TOTAL EARNED LESS RETAINAGE (Line 4 less line 5 Total)..... _____
7. LESS PREVIOUS CERTIFICATES FOR PAYMENT (Line 6 from prior Certificate)..... _____
8. CURRENT PAYMENT DUE..... _____
9. BALANCE TO FINISH, INCLUDING RETAINAGE.. _____
 (Line 3 less Line 6)

State of: ___ County of: _____
 Subscribed and sworn to before me this ___ day of _____, 20___
 Notary Public: _____
 My Commission expires: _____

In accordance with the Contract Documents, based on-site observations and the data comprising this application, the Architect certifies to the Owner that to the best of the Architect's knowledge, information and belief the Work has progressed as indicated, the quality of the Work is in accordance with the Contract Documents, and the Contractor is entitled to payment of the AMOUNT CERTIFIED.

AMOUNT CERTIFIED \$ _____ Date: _____
 (Attach explanation if amount certified differs from the amount applied for)

By: _____ Date: _____

This Certificate is not negotiable. The AMOUNT CERTIFIED is payable only to the Contractor named herein. Issuance, payment and acceptance of payment are without prejudice to any rights of the Owner or Contractor under this Contract.

COMPTON COMMUNITY COLLEGE DISTRICT

**CONDITIONAL WAIVER AND RELEASE UPON PROGRESS PAYMENT
[Civil Code §8132]**

Upon receipt by the undersigned of a check from _____
(Maker of Check)
in the sum of \$ _____ Payable to _____
(Amount of Check) (Payee or Payees of Check)
and when the check has been properly endorsed and has been paid by the bank upon which it is drawn, this document shall become effective to release any mechanic's lien, stop notice or bond right the undersigned has on the job of Compton Community College District located at _____ to the following extent.

This release covers a progress payment for labor, services, equipment or materials furnished to _____ through _____
(Your Customer) (Date)

only and does not cover any retention retained before or after the release date; extras furnished before the release date for which payment has not been received; extras or items furnished after the release date. Rights based upon work performed or items furnished under a written change order which has been fully executed by the parties prior to the release date are covered by this release unless specifically reserved by the claimant in this release. This release of any mechanic's lien, stop notice, or bond right shall not otherwise affect the contract rights, including rights between parties to the contract based upon a rescission, abandonment, or breach of the contract, or the right to the undersigned to recover compensation for furnished labor, services, equipment, or material covered by this release if that furnished labor, services, equipment, or material was not compensated by the progress payment.

Before any recipient of this document relies on it, said party should verify evidence of payment to the undersigned.

Dated: _____ Company Name: _____
By: _____
(Title)

NOTE: This form complies with the requirements of Civil Code Section 8132. It is to be used by a party who applies for a progress payment when the progress check has not yet cleared the bank. This release only becomes effective when the check, properly endorsed, has cleared the bank.

USE REVERSE SIDE AS RELEASE FOR INDIVIDUALS PERFORMING LABOR FOR WAGES

COMPTON COMMUNITY COLLEGE DISTRICT

§ 484(b) OF THE CALIFORNIA PENAL CODE PROVIDES IN PART AS FOLLOWS:

"Any person who receives money for the purpose of obtaining paying for services, labor, materials or equipment and willfully fails to apply such money for such purpose by wither willfully failing to complete the improvements for which funds were provided or willfully failing to pay for services, labor, materials or equipment provided incident to such construction, and wrongfully diverts the funds to a use other that for which the funds were received, shall be guilty of a public offense and punishable by a fine not exceeding ten thousand dollars (\$10,000), or by imprisonment in the state prison, or in the county jail not exceeding one year, or by both such fine and such imprisonment. If the amount diverted is in excess of one thousand dollars (\$1,000). If the amount diverted is less than one thousand dollars (\$1,000), the person shall be guilty of a misdemeanor."

§484(c) OF THE CALIFORNIA PENAL CODE PROVIDES AS FOLLOWS:

"Any person who submits a false voucher to obtain construction loan funds and does not use the funds for the purpose for which the claim was submitted is guilty of embezzlement."

§206.5 OF THE CALIFORNIA LABOR CODE PROVIDES:

"No employer shall require the execution of any release of any claim or right on account of wages due, or become due, or made as an advance on wages top be earned, unless payment of such wages has been made. Any release required or executed in violation of the provisions of this section shall be null and void as between the employer and the employee and the violation of the provisions of this section shall be a misdemeanor."

§532(e) OF THE CALIFORNIA PENAL CODE PROVIDES AS FOLLOWS:

"Any person who receives money for the purpose of obtaining or paying for services, labor, materials or equipment incident to constructing improvements on real property and willfully rebates any part of the money to or on behalf of anyone contracting with such person for provision of the services, labor, materials or equipment for which the money was given, shall be guilty of a misdemeanor, provided, however, that normal trade discount for prompt payment shall not be considered a violation of this section."

COMPTON COMMUNITY COLLEGE DISTRICT

UNCONDITIONAL WAIVER AND RELEASE UPON PROGRESS PAYMENT

Civil Code Section 8134

The undersigned has been paid in and has received a progress payment in the sum of

\$ _____ for _____
(Amount of Check Written & Numeric)

labor, services, equipment, or material furnished to Compton Community College District on the job of CCCD _____ Project and does hereby release pro tanto any mechanics lien, stop notice, or bond right that the undersigned has on the above referenced job to the following extent. This release covers a progress payment for labor, services, equipment, or material furnish to **Compton Community College District** through _____ only and does not cover any retention retained before of (Date/End of Month) after the release date; extras furnished before the release date for which payment has not been received; extras or items furnished after the release date. Rights based upon work performed or items furnished under a written change order which has been fully executed by the parties prior to the release date are covered by this release unless specifically reserved by the claimant in this release. This release of any mechanic's lien, stop notice, or bond right shall not otherwise affect the contract rights including rights between parties to the contract based upon a rescission, abandonment, or breach of the contract, of the right of the undersigned to recover compensation for furnished labor, services equipment, or material covered by this release if that furnished labor, services, equipment, or material was not compensated by the progress payment.

Date: _____

(Company Name)

(Bid Package Number)

By: _____
(Signature)

(Print Name)

(Title)

NOTICE: THIS DOCUMENT WAIVES RIGHTS UNCONDITIONALLY AND STATES THAT YOU HAVE BEEN PAID FOR GIVING UP THOSE RIGHTS. THIS DOCUMENT IS ENFORCEABLE AGAINST YOU IF YOU SIGN IT, EVEN IF YOU HAVE NOT BEEN PAID. IF YOU HAVE NOT BEEN PAID, USE A CONDITIONAL RELEASE FORM.

NOTE: This form of release complies with the requirements of Civil Code Section 8134. It is to be used to release claims to the extent that a progress payment has actually been received by the releasing party.

COMPTON COMMUNITY COLLEGE DISTRICT

**CONDITIONAL WAIVER AND RELEASE UPON FINAL PAYMENT
(Civil Code Section 8136)**

Upon receipt by the undersigned of a check from _____

(Maker of Check)

in the sum of \$ _____

(Amount of Check)

payable to _____

(Payee or Payees of Check)

and when the check has been properly endorsed and has been paid by the bank upon which it is drawn, this document shall become effective to release pro tanto any mechanic's lien, stop notice or bond right the undersigned has on the job of Compton Community College District located at 1111 E. Artesia Blvd., Compton, CA 90221 to the following extent:

This release covers the final payment to the undersigned for all labor, services, equipment, or materials furnished on the _____, except for disputed claims for extra work in the amount of \$ _____.

DATED: _____

(Company Name)

By: _____

(Title)

NOTE: This form complies with the requirements of Civil Code Section 8136. It is to be used by the party who applies for a final payment when the final payment check has not yet cleared the bank. This release only becomes effective when the check, properly endorsed, has cleared the bank.

COMPTON COMMUNITY COLLEGE DISTRICT

2-WEEK-LOOK-AHEAD

- 1. Insert information, including dates
- 2. Include Contractor Company Name & Bid Package Number below
- 3. Include Signature below

Items to Schedule: _____

Date: _____ Signature: _____

Contractor: _____

COMPTON COMMUNITY COLLEGE DISTRICT

TIME AND MATERIAL WORK ITEM TICKET

PROJECT: _____ PCO# _____ BP# _____
 CONTRACTOR: _____ SHEET# _____ of _____
 Reference Document: _____ Submitted for work on: _____
 Original Work Date for this Item: _____ Is Work Completed today? _____
 Date of Last Work Activity: _____ Date Submitted to CM _____

WORK COMPLETED TODAY:

Location:

LABOR

EMPLOYEE NAME	CLASSIFICATION	Hours Noted	REMARKS
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____

MATERIAL

ITEM DESCRIPTION	QTY / UNITS	Hours Noted	REMARKS
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____

EQUIPMENT

EQUIPMENT	MAKE & MODEL	Hours Noted	REMARKS	Rented / Owned
1. _____	_____	_____	_____	_____
2. _____	_____	_____	_____	_____
3. _____	_____	_____	_____	_____
4. _____	_____	_____	_____	_____
5. _____	_____	_____	_____	_____

CONTRACTOR CERTIFICATION: Signature by contractor to certify that all information on this sheet is true and accurate. Contractor also certifies that only the listed labor, material, and equipment listed were used for this item and that no other items are part of this work.

SIGNATURES

CM: Verifies hours worked as identified on this sheet only, not acceptance of any cost or schedule impact on behalf of the Owner.

IOR: Verifies hours worked as identified on this sheet only, not acceptance of any cost or schedule impact on behalf of the Owner.

UNCONDITIONAL WAIVER AND RELEASE UPON FINAL PAYMENT

{Civil Code Section 8138}

The undersigned has been paid in full for all labor, services, equipment or materials furnished to _____
on the job of _____
located at _____
and does hereby release pro tanto any mechanic's lien, stop notice or bond right, except for disputed claims for extra work in the amount of \$_____.

DATED: _____

Company Name

By: _____

Signature

Title _____

NOTICE: THIS DOCUMENT WAIVES RIGHTS UNCONDITIONALLY AND STATES THAT YOU HAVE BEEN PAID FOR GIVING UP THOSE RIGHTS. THIS DOCUMENT IS ENFORCEABLE AGAINST YOU IF YOU SIGN IT, EVEN IF YOU HAVE NOT BEEN PAID. IF YOU HAVE NOT BEEN PAID, USE A CONDITIONAL RELEASE UPON FINAL PAYMENT FORM.

NOTE: This form of release complies with the requirements of Civil Code Section 8138. It is to be used to release claims to the extent that a final payment has actually been received by the releasing party.



COMPTON COMMUNITY COLLEGE DISTRICT
1111 E. Artesia Blvd
Compton, California 90221

GUARANTEE

Guarantee for _____ . We hereby guarantee that the _____, which we have installed in _____, has been done in accordance with the Contract Documents, 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 any or all such work, together with any other adjacent work, which may be displaced in connection with such replacement, that may prove to be defective in workmanship or material within a period of _____ (__) year(s) from the date of the Notice of Completion of the above-mentioned structure by the Compton Community College District, ordinary wear and tear and unusual abuse or neglect excepted.

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 two (2) business days 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 therefore 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.

GUARANTEE (continued)

Contractor's Company Name

Signature of Contractor

Print Name

Title

Subcontractor's Company Name
(If work performed by subcontractor)

Signature of Subcontractor

Print Name

Title

Representatives to be contacted for service:

Name: _____

Address: _____

Telephone Number: _____

END OF SECTION

CONTRACTOR VERIFIED REPORT

This form shall be completed by each contractor having a contract with the owner, in accordance with California Code of Regulations, Title 24, Part 1, Sections 4-343 or 4-220.

School District/Owner:		DSA File #:	-
Project Name/School:		DSA App. #:	-
Date of Report:	Number of Attached Pages: <i>(If none, enter zero.)</i>	DSA 152 Card #(s):	
Note that DSA approved construction documents, referred to below, are those portions of the construction documents, duly approved by the DSA, that contain information related to and affecting the Structural Safety, Fire/Life Safety and Accessibility portions of the project.		<i>List all inspection card numbers for which this verified report applies.</i>	

COMPLETE SECTIONS 1, 2, 3 & 4 AND PROVIDE ALL REQUIRED DOCUMENTATION

1. CONTRACTOR INFORMATION *(Enter name and check applicable box)*

Name of Contractor (Company/Firm) Submitting this Report:	
Operating as general contractor responsible for all work shown in the <i>DSA approved</i> construction documents.	
Operating as contractor responsible for part of the work shown in the <i>DSA approved</i> construction documents. <i>(Describe scope of work in the contract.)</i>	

2. REASON FOR FILING THIS VERIFIED REPORT *(Check applicable box)*

Interim Verified Report: List affected form DSA 152 Inspection Card Section #(s):	
Final Verified Report: Construction of all work shown in the <i>DSA approved</i> construction documents that is part of my contract is complete.	
Termination of Contract prior to completion of all work in the contract <i>(Provide last date of work):</i>	
DSA Request Dated:	

3. DEFERRED SUBMITTALS *(Check applicable box)*

This project does not require deferred submittals within the scope of my contract.	
All deferred submittals within the scope of my contract are approved by DSA.	
The following deferred submittals, within the scope of my contract, are not approved by DSA <i>(Provide list. Attach additional pages if necessary.):</i>	

4. DEVIATIONS AS OF THE DATE OF THIS REPORT *(Check applicable box)*

All deviation notices pertinent to my contract related to work shown in the <i>DSA approved</i> construction documents are resolved.	
There are unresolved deviation notices pertinent to my contract and related to work shown in the <i>DSA approved</i> construction documents. <i>(Attach copies)</i>	
There is work pertinent to my contract that is not completed in compliance with the <i>DSA approved</i> construction documents. <i>(Briefly describe. Attach additional pages if necessary.)</i>	

I attest that based on my own personal knowledge (as defined in California Code of Regulations, Title 24, Part 1, Sections 4-336 and 4-214) that, except as marked in Sections 3 and 4, as of the date of this report, the work has been performed and materials have been used and installed, in every material respect, in compliance with the *DSA approved* construction documents. I declare under penalty of perjury that I prepared this report and that all statements are true.

Signature: _____ Date: _____

Print Name: _____ Contractor's License No.: _____

Submit completed form to the DSA Regional Office with construction oversight authority for the project.

DSA OAKLAND 1515 Clay Street, Suite 1201 Oakland, CA 94612	DSA SACRAMENTO 1102 Q Street, Suite 5200 Sacramento, CA 95811	DSA LOS ANGELES 700 N. Alameda Street, Suite 5-500 Los Angeles, CA 90012	DSA SAN DIEGO 10920 Via Frontera Rd., Suite 300 San Diego, CA 92127
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COMPTON COMMUNITY COLLEGE DISTRICT

Construction Procedures Manual

V. PROJECT / CONTRACT COMPLETION

- A. The contracts of certain other Contractors may be complete prior to the overall completion of the project, as determined by the Construction Manager. The entire project is not finally complete until Contractors have completed their work and all equipment and furnishings have been installed, systems tested, and accepted and all notices of completion recorded. The District may occupy all or any part of the project prior to completion, in accordance with the Contract Documents. See General Conditions Article 9.9 for further details regarding project completion and requirements.

END OF SECTION

COMPTON COMMUNITY COLLEGE DISTRICT

Construction Procedures Manual

VI. CONTRACT CLOSE-OUT

A. Contract close-out involves review of the Contract Documents, drawings, specifications, schedules, and inspection reports to ensure the Contractors have satisfactorily completed the requirements of the Contract Documents (General Conditions Article 9.9). Before release of the retainage, the Contractor must deliver to the Construction Manager the following close-out submittals and documentation: Including, but not limited to, the following (see also General Conditions Article 9.11):

1. Certificates of Inspection as applicable to each bid package
2. Project record documents, including as-built documents (Hard and Electronic per the District Requirements)
3. Operation and Maintenance Manuals - (per Contract Documents)
4. Warranties and Bonds - two wet signed notarized originals that MUST be signed with blue ink
5. Keys and keying schedule
6. Spare parts and materials
7. Statement of completion of all punch list items
8. Affidavit that all payrolls, bills, and indebtedness connected with the work have been paid or satisfied - sworn statement
9. Final waiver of liens
10. Consent of Surety to final payment
11. Final Verified Reports
12. Other data as required by the Construction Manager for assurance of satisfaction of the requirements of the contract documents.
13. In-Service Schedule
14. Commissioning

The A/E will make distribution of the close-out submittals to the Owner with copies to the appropriate project team members.

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- B. The A/E will draft the Notice of Completion for Board presentation. The District normally files these with the County within ten (10) days of the Board's action.

- C. Upon completion and submittal of all contract close-out times, the Contractor shall submit written notice to the Construction Manager that the project is ready for final inspection. Concurrent with the request for final inspection, the Contractor shall prepare and submit a final application for payment, the Construction Manager, in conjunction with the A/E, will issue a final certificate for payment to the Owner recommending final payment. The Owner will make final payment, less outstanding Stop Notices.

END OF SECTION

COMPTON COMMUNITY COLLEGE DISTRICT Construction Procedures Manual

V. APPENDIX

A. GENERAL FORMS:

1. Daily Construction Job Report
2. Submittal Form
3. Substitution Request Form
4. Inspection Request
5. Request For Information
6. Request For Quotation Form
7. Potential Change Order
8. Change and Extras Form
9. Instruction Sheet for Pay Applications
10. Application and Certification for Payment
11. Schedule of Values Sheet
12. Conditional Waiver And Release Upon Progress Payment
13. Unconditional Waiver And Release Upon Progress Payment
14. Conditional Waiver And Release Upon Final Payment
15. 2-Week-Look-Ahead
16. Time and Material Work Item Ticket
17. Guarantee Form
18. DSA-6 Form

COMPTON COMMUNITY COLLEGE DISTRICT

PROJECT COORDINATION

PART 1 - GENERAL

1.1 REQUIREMENTS INCLUDED:

- A. Each Prime CONTRACTOR shall coordinate his Work and Work of his subcontractors for the Project.
- B. Each Prime Contractor shall:
 - 1. Coordinate work of his own employees and suppliers.
 - 2. Expedite his work to assure compliance with schedules.
 - 3. Coordinate his work with that of other Prime Contractors, subcontractors, and work by DISTRICT.
- C. Each Prime Contractor shall coordinate his work and the work of his subcontractors with other Prime Contractors on Project.
- D. This Prime Contractor understands and will coordinate with Bid Packs 01to ensure proper coordination, scheduling and ensure that the required Fire Watch/Security is well informed and coordinated with the Construction Manager and reviewed at each construction meeting.

1.2 RELATED REQUIREMENTS:

- A. The General Conditions of the Contract: Authority and responsibilities of the Contractor and subcontractor.

1.3 CONSTRUCTION ORGANIZATION AND START-UP:

- A. The Prime Contractor shall establish on-site lines of authority and communications, and each Contractor shall:
 - 1. Attend pre-construction meeting and mandatory weekly progress meetings.
 - 2. Establish procedures for inter-project communications:
 - a. Submittals
 - b. Reports and records
 - c. Recommendations

COMPTON COMMUNITY COLLEGE DISTRICT

- d. Coordination drawings
 - e. Schedules (Critical path method, submitted to CONSTRUCTION MANAGER in accordance with the General Conditions)
 - f. Resolution of conflicts
3. Interpret Contract Documents:
- a. Consult with CONSTRUCTION MANAGER to obtain interpretation from the ARCHITECT.
 - b. Assist in resolution of questions or conflicts which may arise.
 - c. Transmit written interpretations to subcontractors and to other concerned parties.
4. Assist in obtaining permits and approvals:
- a. Building permits and special permits required for all Work or for temporary facilities.
 - b. Verify that subcontractors have obtained inspections for all Work through the D.S.A. approved INSPECTOR.
5. Control the use of site:
- a. Supervise field engineering and site layout.
 - b. Allocate space for each subcontractor's use for field offices, sheds, and work and storage areas as approved by the CONSTRUCTION MANAGER.
 - c. Establish access, traffic and parking allocations and regulations.
 - d. Monitor use of site during construction.

1.4 GENERAL DUTIES:

- A. Construction Schedules - Each Prime Contractor shall:

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1. Prepare a detailed schedule of basic operations for all subcontractors.
 - a. Each subcontractor shall prepare sub-schedules to comply with critical phases.
2. Monitor schedules as work progresses:
 - a. Identify potential variances between scheduled and probable completion dates for each phase.
 - b. Recommend to CONSTRUCTION MANAGER adjustments in schedule to meet required completion dates.
 - c. Adjust schedules of subcontractors as required.
 - d. Document changes in schedule, submit to DISTRICT and ARCHITECT/ENGINEER through the CONSTRUCTION MANAGER and to involved subcontractors.
 - e. Upon written notice by CONSTRUCTION MANAGER, PRIME CONTRACTOR shall, within three (3) calendar days, provide a complete recovery schedule, including manpower loading, resource loading, detailing how the PRIME CONTRACTOR and his subcontractors will recover PRIME CONTRACTOR'S original scheduled milestone dates. Recovery schedule shall show overtime, weekends, or multiple shifts as necessary to meet each milestone of the original schedule.
3. Observe Work of each subcontractor to monitor compliance with schedule.
 - a. Verify that labor and equipment are adequate for the Work and the schedule.
 - b. Confirm that product procurement schedules are adequate.
 - c. Confirm that product deliveries are adequate to maintain schedule.

COMPTON COMMUNITY COLLEGE DISTRICT

- d. Report noncompliance to District D.S.A. approved INSPECTOR, with recommendation for changes.
- B. Process Shop Drawings, product data and samples - Each Prime Contractor shall:
1. Prior to submittal to ARCHITECT/ENGINEER, review for compliance with Contract Documents:
 - a. Field dimensions and clearance dimensions.
 - b. Relation to available space.
 - c. Relation to other contracts and to other trades.
 - d. Effect of any changes on the Work of any other contracts or other trades.
 - e. Provide written approval that submittals have been approved by Prime Contractor.
- C. Review coordination drawings prepared by mechanical and electrical Contractors - Each Prime Contractor shall:
1. Prior to submittal to ARCHITECT/ENGINEER, through the CONSTRUCTION MANAGER, review for compliance with Contract Documents.
 2. Resolve conflicts and assure coordination of the Work of, or affected by, mechanical and electrical trades, or by special equipment requirements.
- D. Inspection and testing - Each Prime Contractor shall:
1. Inspect Work to assure performance in accordance with requirements of Contract Documents.
 2. Bring to ARCHITECT'S/ENGINEER'S attention, through the CONSTRUCTION MANAGER, the need of any special testing and inspections of suspect Work.
 3. Reject Work which does not comply with requirements of Contract Documents.
 4. Coordinate Testing Laboratory services:

COMPTON COMMUNITY COLLEGE DISTRICT

- a. Verify that required laboratory personnel are present.
 - b. Verify that tests are made in accordance with specified standards.
 - c. Review test reports for compliance with specified criteria.
 - d. Recommend and administer any required retesting.
- E. Monitor the use of temporary utilities - Each Prime Contractor shall verify that adequate services are provided and maintained.
- F. Monitor the PRIME CONTRACTOR'S periodic cleaning - Each Prime Contractor shall:
1. Enforce compliance with Specifications.
 2. Resolve any conflicts.
- G. Arrange for delivery of DISTRICT furnished products - Each Prime Contractor shall:
1. Inspect for condition at delivery.
 2. Turn over to appropriate subcontractor, obtain receipt.
- H. Changes and substitutions - Each Prime Contractor shall:
1. Recommend necessary or desirable changes to DISTRICT and to ARCHITECT/ENGINEER, through the CONSTRUCTION MANAGER.
 2. Review subcontractor's requests for changes and substitutions. Submit recommendations to DISTRICT and to ARCHITECT/ENGINEER through the CONSTRUCTION MANAGER.
 3. Assist ARCHITECT/ENGINEER, through the CONSTRUCTION MANAGER, in negotiating Change Orders.
 4. Promptly notify all subcontractors of pending changes or substitutions.

1.5 CLOSE-OUT DUTIES:

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- A. Mechanical and electrical equipment start-up:
1. Coordinate check-out of utilities, operations systems, and equipment.
 2. Assist in initial start-up and testing.
 3. Record dates of start of operation of systems and equipment.
 4. Submit to DISTRICT written notice of beginning of warranty period for equipment put into service.
- B. At completion of Work of each Prime Contract, conduct an inspection to assure that:
1. Specified cleaning has been accomplished.
 2. Temporary facilities have been removed from site.
- C. Substantial Completion:
1. Conduct an inspection to confirm or supplement Prime Contractor's list of work to be completed or corrected.
 2. Assist ARCHITECT/ENGINEER, through the CONSTRUCTION MANAGER, in preparation of correction list.
 3. Supervise correction and completion of Work as established in Certificate of Substantial Completion.
- D. When DISTRICT occupies a portion of Project prior to final completion, coordinate established responsibilities of PRIME CONTRACTOR and DISTRICT.
- E. Final Completion:
1. When each Prime Contractor determines that Work is finally complete, conduct an inspection to verify completion of Work, prior to Punchlist.

COMPTON COMMUNITY COLLEGE DISTRICT

2. Assist ARCHITECT/ENGINEER, through the CONSTRUCTION MANAGER, in verification of final completion.

F. Administration of Contract Close-out: - Each Prime Contractor shall:

1. Review final submittals and as-builts prior to transmittal.
2. Transmit to ARCHITECT/ENGINEER, through the CONSTRUCTION MANAGER, with recommendations for action.

1.6 REQUEST FOR INFORMATION

- A. Each Prime Contractor shall plan, schedule, coordinate and sequence Work so Requests for Information (RFI), if necessary, may be submitted to the Architect/Engineer in a timely manner so as not to delay progress of Work. Submission of and responses to RFI(s) with copies to Owner, shall be transmitted via facsimile (FAX) equipment or via email to designated email addresses.
- B. Telephone conversations requesting information shall be confirmed in writing for prompt reply of all RFI(s). Prime Contractor shall coordinate the timing of facsimile (FAX), email and telephone conversations to be made with the Architect's/Engineer's office between the hours of 8:00 a.m. and noon, Monday through Friday.
- C. Architect/Engineer shall have the same time period to respond to RFI(s) as "shop drawing review period". When Architect/Engineer responds to an RFI within 5 working days after receipt of RFI but when the response already is contained or included within contract documents, or is based on referenced standards, or is based on established and common construction practices, Contractor shall reimburse the Architect at the following hourly rates:

Principal	\$150
Associate Architect/Project Manager	100
Project Architect/Engineer	85
Job Captain	70
Draftsperson	65
Support Staff	45

If RFI requires Architect's/Engineer's Consultant(s) acknowledgement, Prime Contractor shall reimburse consultant(s), at the same hourly rate for consultant's staff; Prime Contractor shall also pay to the Architect, a percentage for overhead and profit to

COMPTON COMMUNITY COLLEGE DISTRICT

the consultant's fee, equal to the markup the Prime Contractor adds to "Change Orders".

- D. Prime Contractor shall be billed at "Request for Payment" meeting, and payment is due on the 10th day of the following month. If payment is not received by Architect/Engineer by that date, Architect's/Engineer's response to pending RFIs will be delayed by the same number of days as the days the payment check for RFI services is late.
- E. 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 the Architect's/Engineer'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 "Construction Schedule" activity period(s).

1.7 QUALITY ASSURANCE

- A. Familiarity with Contract Documents:
 - 1. Prime 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/Engineer immediately. Where there is 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 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 Prime Contractor in his transmittals, all of the Prime Contractor's data transmittals to the Architect/Engineer for the Architect's/Engineer's review will be construed as stipulating that the Prime Contractor has thoroughly and completely reviewed and coordinated the data prior to transmittal.

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- C. Interfacing: It shall be solely the responsibility of each Prime Contractor to make sure that the assigned work completes in a timely manner and that all interfaces are prepared, connected, and function as required.

PART 2 – PRODUCTS – All products will be submitted and approved by the Architect/Engineer prior to purchase and then placement.

PART 3 - EXECUTION

3.1 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.
 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.

3.2 COORDINATION

- A. Coordinate construction activities included under various Sections of these Specifications to ensure 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.

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3.3 GENERAL INSTALLATION PROVISIONS

- A. Coordination methods used by the Prime Contractor are at the Prime Contractor's option, except that the Architect/Engineer may disapprove Work completed by the Prime Contractor or data submitted by the Prime Contractor when, in the Architect's/Engineer'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 final decision.

END OF SECTION

COMPTON COMMUNITY COLLEGE DISTRICT

ACCELERATION OF WORK

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section specifies administrative and procedural requirements for the acceleration of the work by the Contractor.
 - 1. Where work is falling behind the construction schedule and the total project may not be completed by the date for contract completion as adjusted by change orders.
 - 2. Where the District requires the entire project or a portion thereof be completed at a date earlier than the contract completion date as adjusted by change orders.
- B. Related Sections
 - 1. Section 01 25 00 - Contract Modifications Procedures
 - 2. Section 01 29 00 - Payment Procedures
 - 3. Section 01 33 00 - Submittals.
- C. Construction Completion date as stated in the Agreement shall be the completion dated as revised by all time extensions granted at the time acceleration of the work begins.

1.2 NOTICE TO ACCELERATE WORK

- A. If in the judgment of the Architect and School District it becomes necessary at any time to accelerate the work or a portion thereof to increase rate of progress, Contractor when directed in writing, shall increase his construction forces, equipment, hours of work, number of shifts, delivery of materials and provide means to insure timely completion of the project.
 - 1. Any increase in cost to Contractor to accelerate the work progress to meet construction schedules or contract completion dates are the responsibility of the Contractor.
 - 2. Contractor shall not be entitled to additional compensation for additional effort he applies to the work to meet construction schedules or contract completion dates.

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3. Overtime hours by Contractor or its Subcontractors are the responsibility of the Contractor and are not grounds for additional compensation.
- B. If in the judgment of the Architect/Engineer and School District it become necessary at any time to accelerate the work or a portion thereof be completed at a date earlier than the contract completion date, Contractor when directed in writing, shall increase his construction forces, equipment, hours of work, number of shifts, delivery of materials and provide means to insure an earlier completion date.
1. Architect/Engineer and District shall determine new accelerated completion date.
 2. Any increase in the cost to Contractor in compliance with such accelerated completion date shall be adjusted by Change Order.
- C. All directives or orders to accelerate the work will be in writing. Any directive or order terminating acceleration of the work will be in writing.
- D. Phased Construction: Where the project includes phased construction and portions of the project are to be completed at earlier times than other portions of the contract, the above stated acceleration provisions shall apply to each phase of the construction contract.

1.3 CONTRACTOR RESPONSIBILITIES

- A. Contractor shall when so directed by the Architect/Engineer or School District to accelerate the work or portion thereof, deploy Subcontractors, accelerate material deliveries, increase work forces, increase hours of work, provide additional shifts or provide other methods to accelerate progress of the work.
- B. Contractor shall within ten (10) calendar days after receiving written notice to accelerate the work, provide in writing to the Architect/Engineer and District specific measures being taken or planned to increase rate of progress along with a revised Construction Schedule. Architect/Engineer may require the Contractor to make adjustments in the plan of action to insure acceleration of the work.

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- C. Contractor shall continue acceleration of the work until scheduled progress is regained for timely completion of the project. Timely completion shall be understood as the contract completion date, as revised by all time extensions granted at the time acceleration begins.

1.4 REVISED CONSTRUCTION SCHEDULE

- A. Critical-Path Acceleration of Work Schedule: Prepare a new revised fully developed, Critical Path Method type Contractor's construction schedule showing an Acceleration of Work Schedule and new completion dates where an earlier completion date is directed. Revised schedule shall show acceleration of work scheduled to increase progress of the work to provide for timely completion of the project.

PART 2 – PRODUCTS - (Not Applicable)

PART 3 – EXECUTION - (Not Applicable)

END OF SECTION

COMPTON COMMUNITY COLLEGE DISTRICT

SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: General requirements for the submittal of Shop Drawings, product literature, samples, RFIs, and other data.
 - 1. To ensure that specified products are furnished and installed in accordance with the design intent, procedures have been established for advance submittal of relevant data, and for review and acceptance or rejection of that data by the Architect.
 - 2. Procedures have been established to ensure that Contractor requests for information and clarification are processed efficiently and promptly.
- B. Referenced Documents and Sections:
 - 1. Document 00 72 00 - General Conditions.
 - 2. Section 01 45 00 - Quality Control.
 - 3. Section 01 63 00 - Product Substitution Procedures.
- C. Substitutions: Requests for substitutions shall be made in accordance with the provisions of, and in a form described in, Section 01 63 00.

1.2 DEFINITIONS

- A. Request For Information (RFI): A document submitted by the Contractor requesting clarification of a portion of the Contract Documents, hereinafter referred to as RFI.
 - 1. Proper RFI: An RFI that includes a detailed written statement indicating the specific Drawings or Specification section in need of clarification and the nature of the clarification requested.
- B. Improper RFIs: RFIs that are not properly prepared.

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1. Improperly prepared RFIs will be processed by the Architect/Engineer at the Architect's/Engineer's standard hourly rate. The Architect will charge the Owner, and such costs will be deducted from monies still due the Contractor.
 - a. The Contractor will be notified by the Architect/Engineer prior to the processing of Improper RFIs.
- C. Frivolous RFIs: RFIs that request information that is clearly shown on the Contract Documents.
 1. Frivolous RFIs may be returned unprocessed. If processed, the Architect may charge the Owner at the Architect's/Engineer's standard hourly rate, and such costs will be deducted from monies due the Contractor.
 - a. The Contractor will be notified by the Architect/Engineer prior to the processing of Frivolous RFIs.

1.3 SCHEDULE OF SUBMITTALS

- A. Schedules: Furnish required schedules in accordance with the General Conditions listing all items that will be submitted for acceptance-review by the Construction Manager and Architect/Engineer.
 1. Include Shop Drawings, manufacturer's literature, test procedures, test results, certificates of compliance, material samples, and special guaranties.
 2. Indicate scheduled dates for submitting the above items, projected needs for responses, and procurement dates.
 3. Revise and update submittal schedule as required to keep current. Make revised schedules available to the Architect/Engineer for review.
- B. For drawings larger than 11 inches by 17 inches, submit two copies of blueline prints, and one reproducible sepia or vellum of each Shop Drawing submittal, or as determined by mutual agreement. One reproducible copy will be returned to Contractor for reproduction and distribution as required.

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1. Alternately, provide two sets of plain bond paper copies 11 inches by 17 inches in size.
- C. Make submittals in accordance with the General Conditions to allow adequate time for securing necessary acceptances, for revision and resubmittal, for placing orders and securing delivery, and to accommodate the rate of construction progress required under the Contract.
- D. Do not begin work requiring submittals until the submittals have been returned with the other professional consultant's stamp indicating review and acceptance.
1. Provide acknowledgement stamp by Contractor signifying review and acceptance of submittal as defined in Article 1.5 - Coordination of Submittals.
- E. Submittals with Bid:
1. Elevators: Provide copies of Preventive Maintenance Contract in accordance with Project Manual Elevator Specifications (if any).

1.4 IDENTIFICATION OF SUBMITTALS

- A. On submittal forms acceptable to the Architect/Engineer, identify each submittal and resubmittal by including the following information:
1. Name and address of submitter, including name and telephone number of the individual to be contacted for further information.
 2. Complete name of Project.
 3. Drawing number and Specification Section number to which the submittal applies.
 4. Whether submittal is an original or a resubmittal.
 5. Date submittal was prepared or revised.

1.5 COORDINATION OF SUBMITTALS

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- A. General: Fully coordinate materials prior to submittal for review. Include a transmittal form with a signed statement that submittal satisfies the following procedures:
 - 1. Determine and verify field dimensions and other field conditions.
 - 2. Coordinate with work of related trades.
 - 3. Coordinate with the requirements of public agencies having jurisdiction.
 - 4. Secure required approvals from public agencies and signify by stamp, or other legitimate means, that they have been secured.
 - 5. Indicate necessary deviations from the Contract Documents in a clear manner.
- B. Grouping of Submittals: Make submittals in groups containing associated items. The Architect reserves the right to reject partial submittals as not complying with provisions of the Contract Documents.

PART 2 - PRODUCTS

2.1 PRODUCT DATA

- A. When required by Part 1 - General of the respective Sections, submit manufacturer's printed product data and instructions for products used on the Project. Include catalog cuts, diagrams, and other descriptive material published by the manufacturer, as well as evidence of compliance with safety and performance standards to demonstrate conformance to the specified requirements. Catalog numbers alone will not be acceptable.
 - 1. Include complete lists of materials, illustrations, standard schedules, performance charts, instructions, brochures, diagrams, and other information proposed for use, giving manufacturer's name, catalog number, and catalog cut for each item, where applicable.
 - 2. When materials, equipment, or fixtures are identified by numeric, alphabetical, or alphanumeric designations,

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identify materials, equipment, and fixtures proposed for use with identical designations.

2.2 SHOP DRAWINGS

- A. When required by Part 1 - General of the respective Sections for the various portions of the construction, provide special detailed drawings, diagrams, schedules, and other data in amplification of the Contract Documents before proceeding with the work.
 - 1. Refer to Document 00 72 00 - General Conditions for obligations under the Contract regarding Shop Drawings, product data, and samples.
- B. Submit Shop Drawings prepared by qualified detailers. Identify details by reference to Contract Drawing sheet and detail numbers and by specification section and article numbers. Provide a blank area approximately 4 inches by 4 inches for Architect's review stamp.
 - 1. Do not use reproductions of Contract Drawings for fabrication or erection drawings.
- C. Shop Drawings submitted shall include not less than the following:
 - 1. Dimensioned plans, elevations, and sections locating assembly components in relationship to each other and in relationship to contiguous building structure.
 - 2. Typical and special fabrication and installation details, including details of anchorage to supporting structure.
 - 3. Materials and finishes.
- D. Indicate desired deviations from Contract Drawings on Shop Drawings by placing a heavy line around features on which acceptance is requested. Append a note to each deviation specifically requesting acceptance.
 - 1. Contractor is advised that the identification of "desired deviations" will not be construed as a means of requesting substitutions. Make requests for substitutions in accordance with the provisions of Section 01 63 00.
- E. Refer to Part 3 - Execution, for additional review documentation procedures.

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2.3 SAMPLES

- A. When required by Part 1 - General of the respective Sections of the Specifications, submit physical examples of each item which illustrate materials, equipment, or workmanship, and establish standards by which the work will be judged.
- B. All products requiring color selection shall be submitted prior to any selection of colors by the Architect/Engineer. Allow sufficient time for color selection of all items so as not to delay construction progress.

2.4 QUALITY CONTROL SUBMITTALS

- A. Test Reports: When and as directed by the Architect/Engineer, submit certified laboratory test reports confirming physical characteristics of materials used in the performance of the work. Refer to Section 01 45 00 for general requirements for inspections and tests.
- B. Manufacturer's Instructions: Submit manufacturer's current recommended methods of installation, including relevant limitations, safety and environmental cautions, and application rates.

2.5 EQUIPMENT ROOM LAYOUT DRAWINGS

- A. Prepare and submit equipment room layout drawings where required by the Contract Drawings and additionally for areas where equipment proposed for use could present interface or space difficulties.
 - 1. Submit room layout drawings within 10 calendar days after receipt of Notice to Proceed in conformance with the requirements specified for Shop Drawings.
 - 2. Include elevations of wall mounted items.

2.6 CERTIFICATES OF COMPLIANCE

- A. When required by Part 1 - General of the respective Sections of the Specifications, furnish certificates to demonstrate compliance of materials with specification requirements, including statements of application and extended guaranties, executed in duplicate. Furnish certificates to the Architect at least 10 days prior to delivery of product. Review certificates before submittals are made to ensure

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compliance with the specification requirements, and to ensure that the affidavit is properly executed.

1. Furnish certificates relative to flame-resistance for all decorative materials.
- B. Furnish certificates signed by an official authorized to act on behalf of the manufacturing company, material supplier, or other third-party entity, as required. Furnish certificates that contain the name and address of the Contractor, the Project name and location, and the quantity and dates of shipment or delivery to which the certificates apply. In the case of copies of laboratory test reports submitted with certificates, furnish test reports which contain the name and address of the testing laboratory and the dates of the tests to which the report applies.
- C. Certification will not be construed as relieving the Contractor from furnishing satisfactory material if, after tests are performed on selected samples, the material is found not to meet the specific requirements.

2.7 CONSTRUCTION COST BREAKDOWN

- A. Within 10 calendar days after issuance of Notice to Proceed, submit a Construction Cost Breakdown (Schedule of Values) based on final Contract Sum and scope of work for use in evaluating construction progress and certificates of payment.

PART 3 - EXECUTION

3.1 CONTRACTOR'S REVIEW

- A. Check subcontractor-submitted drawings and data, verify field measurements, apply review stamp, and submit to the Architect/Engineer promptly.
1. Indicate on review stamp that Contractor has reviewed subcontractor's submittal for conformance to the specified product and submittal procedures.
 2. Disapprove and return to the material supplier, submittals not meeting the requirements of the Contract Documents.

3.2 ARCHITECT'S REVIEW

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- A. The Architect/Engineer will review, and either accept or reject with reasonable promptness and as outlined in the accepted submittal schedule, data and drawings submitted by the Contractor. The Architect/Engineer will review submittals for conformance with the intent of the design, and for compliance with specific and relevant requirements of the Contract Documents.
 - 1. The Architect/Engineer will reject and return to the Contractor, Shop Drawings and product literature submitted without the Contractor's review stamp.
 - 2. The Architect/Engineer will reject and return to the Contractor, Shop Drawings not thoroughly reviewed by Contractor prior to submittal.
- B. The Architect/Engineer is not responsible for delays caused by rejection of Shop Drawings submitted by the Contractor.
- C. Review Procedures:
 - 1. Review will not relieve the Contractor from responsibility for errors.
 - a. Acceptance of submittals shall not be construed as authorizing changes in the Contract Sum or Contract Time, nor shall it be construed as relieving the Contractor of his responsibility for coordination of work with other trades, or interpreted as approving quantities and dimensions.
 - 2. Notations:
 - a. REVIEWED: Fabrication, manufacture, or construction may proceed.
 - b. MAKE CORRECTIONS NOTED: Fabrication, manufacture, or construction may proceed providing submittal complies with comments and notations. If, for any reason, Contractor cannot comply with the comments and notations, Contractor shall bring reasons to the attention of the Architect/Engineer promptly. If Contractor cannot comply with the comments and notations, the MAKE CORRECTIONS NOTED becomes REJECTED. The Contractor shall return the revised version of the submittal to the Architect/Engineer when requested to do so.

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- c. REJECTED: Submittal does not comply with the Contract Documents and fabrication, manufacture, and construction shall not proceed. Submittals stamped REJECTED are not permitted on the job site. Review and re-submit submittal.

3.3 DISTRIBUTION OF SUBMITTALS BY CONTRACTOR

- A. After Architect's/Engineer's review, distribute copies of Shop Drawings and product data which carry the Architect's/Engineer's stamp as determined at the pre-construction meeting. If not otherwise determined, distribute one copy to each of the following:
 - 1. Contractor's Project site file.
 - 2. Project record documents file.
 - 3. Subcontractor, supplier, or fabricator.
 - 4. Other prime Contractors, if applicable.
 - 5. Owner's Representative (at Owner's option).
- B. Distribute samples as directed.
- C. Maintain an up-to-date submittal log.

3.4 CONTRACTOR'S RESPONSIBILITY

- A. The Architect's/Engineer's review of submittals or data shall not relieve the Contractor from responsibility for deviations from Contract Drawings or Specifications unless the Contractor has called the Architect's/Engineer's and Owner's attention to such deviations and secured written acceptance, nor shall it relieve him of responsibility for errors in Shop Drawings or other data.
- B. In the event the Architect/Engineer rejects a submittal twice for valid reasons, including improper procedures, the Contractor shall accept the responsibility to pay for professional services to cover further processing of the submittal. A flat hourly rate, as agreed upon, shall be paid by the Contractor.

END OF SECTION

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ALTERATION PROJECT PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section specifies administrative and procedural requirements for Alteration or Modernization Projects for acceptance of existing site conditions, selective demolition, cutting and patching of existing buildings and site improvements, removal and reinstallation of existing materials, wiring and equipment and interface with existing construction.
- B. Refer to other Sections for specific requirements and limitations applicable to Alteration or Modernization projects
- C. Requirements of this Section apply to Sections in Divisions 2 through 16.

1.2 RELATED SECTIONS

- A. Section 01 01 00 - Summary of work.
- B. Section 01 73 20 - Cutting and Patching
- C. Section 01890 - Existing Facility Reconstruction

1.3 ALTERATION PROJECTS GENERAL PROCEDURES

- A. Alteration/Modernization projects require that the contractor may need to demolish, cut, alter, expose, modify, repair, replace, reconstruct, patch, reroute, or other construction procedures to interface new construction into existing construction.
- B. The Drawings and specifications are not intended to show in detail all Alteration Project Procedures for interface of new construction into existing construction. It is the responsibility of the Contractor to include in the Contract Price Allowances for such Alteration Procedures.

1.4 QUALITY ASSURANCE

- A. Matching existing Construction: On Alteration\Modernization projects new materials are to match existing materials for patching and extending work.

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- B. Determine type and quality of existing materials by inspection and testing. Existing construction shall be used as a standard of quality for new construction unless noted or specified otherwise.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Use materials that are identical to existing materials. If identical materials are not available or cannot be used where exposed surfaces are involved, use materials that match existing adjacent surfaces to the fullest extent possible with regard to visual effect. Use materials whose installed performance will equal or surpass that of existing materials.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that selective demolition is complete and areas are ready for installation of new work.

3.2 PREPARATION

- A. Cut, move, or remove items as necessary for access to alteration and renovation work. Replace and restore prior to completion.
- B. Remove unsuitable material not marked for salvage, such as rotted wood, corroded metals, and deteriorated construction. Replace materials as specified for the affected finish material.
- C. Remove debris and abandoned items from area and from concealed spaces.
- D. Remove surface finishes to provide for proper installation of new work.
- E. Temporarily close openings in exterior surfaces to protect existing improvement from weather, temperature and humidity during construction of new work.

3.3 INSTALLATION

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- A. Coordinate work of Alteration/Modernization to expedite completion and to accommodate School occupancy of the facility.
- B. Remove, cut and patch in a manner to minimize damage to existing facilities and to provide a means of restoring materials and finishes to original conditions.
- C. Refinish visible existing surfaces to remain in Alteration/Modernization areas to specified condition for each material, with a neat transition to adjacent finishes.
- D. In addition to the specified new equipment, fixtures, wiring, conduit, materials, etc. bring existing systems to full operational conditions before Alteration/Modernization work is completed.
- E. Patch, repair and refinish work that was damaged during mechanical, electrical and other modernization work.

3.4 TRANSITIONS

- A. Where the removal or addition of walls, ceilings and finishes abuts existing construction, construct a smooth and even transition. Patch new work to existing to match adjacent work in texture and appearance.
- B. When existing surfaces are cut so that a smooth transition with new construction is not possible, terminate existing surface along a straight line at a natural line of division, such as a corner change in finish or a joint. Replace existing finish as required for a smooth transition.
- C. Trim bottom of existing doors as required to clear new floor finish.

3.5 CONSTRUCTION INTERFERENCE

- A. Where existing construction interferes with new construction, such as pipes, conduit, junction boxes, and other existing construction that may be in a location that is not compatible with new construction, contractor is to relocate, move, provide replacement or otherwise remove the construction interference.
- B. Contractor is to field verify existing conditions and is not to rely on Existing Record Drawings provided by the School District. Contractor is not to rely on any verbal instructions or verbal locations given by School District Personnel unless given or stated

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in writing. Existing Record drawings if provided are for information only and may not indicate the exact existing construction.

3.6 REPAIR OF DAMAGED SURFACES

- A. Where removal of partitions, ceilings, walls or finishes results in adjacent spaces becoming damaged, rework floors, walls and ceilings to provide for a smooth plane without break, steps, or bulkheads.
- B. Patch or replace portions of existing surfaces which are damaged, lifted, discolored, or showing other imperfections. Repair substrate prior to patching finish.

3.7 FINISHES

- A. Finish surfaces as specified in individual Product sections.
- B. Finish patches to produce uniform finish and texture over the entire area. When finish cannot be matched, refinish entire surface to nearest joint corner or intersection.

END OF SECTION

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REFERENCES

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Requirements for reference materials applicable to contract documents
- B. Definitions of abbreviations, terms, and symbols.
- C. Establishes edition dates for reference standards found elsewhere in the specifications.

1.2 DEFINITIONS

- A. General: Basic Contract definitions are included in the General Conditions.
- B. Indicated: The term "indicated" refers to graphic representations, notes, or schedules on the Drawings, other paragraphs or schedules in the Specifications, and similar requirements in the Contract Documents. Where terms such as "shown," "noted," "scheduled," and "specified" are used, it is to help the reader locate the reference; no limitation on location is intended. Except as specifically noted.
- C. Directed: Terms such as "directed," "requested," "authorized," "selected," "approved," "required," and "permitted" mean "directed by the Architect/Engineer," "requested by the Architect/Engineer," and similar phrases. However, no such implied meaning will be interpreted to extend Architect/Engineer responsibility into Contractor's area of construction supervision.
- D. Approve: The term "approved," where used in conjunction with the Architect's/Engineer's action on the Contractor's submittals, applications, and requests, is limited to the Architect's/Engineer's duties and responsibilities as stated in General and Supplementary Conditions. In no case will "approval" by the Architect/Engineer be interpreted as a release of the contractor from responsibilities to fulfill requirements of contract documents.
- E. Regulation: The term "Regulations" includes laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction,

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as well as rules, conventions, and agreements within the construction industry that control performance of the Work.

- F. Furnish: The term "furnish" is used to mean "supply and deliver to the Project site, ready for unloading, unpacking, assembly, installation, and similar operations."
- G. Install: The term "install" is used to describe operations at project site including the actual "unloading, unpacking, assembly, erection, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations."
- H. Provide: The term "provide" means "to furnish and install, complete and ready for the intended use."
- I. Installer: An "Installer" is the Contractor or an entity engaged by the Contractor, either as an employee, subcontractor, or sub-subcontractor, for performance of a particular construction activity, including installation, erection, application, and similar operations. Installers are required to be experienced in the operations they are engaged to perform.
 - 1. The term "experienced" when used with the term "Installer" means having a minimum of 5 previous Projects similar in size and scope to this Project, being familiar with the precautions required, and having complied with requirements of the authority having jurisdiction.
- J. Project Site is the space available to the Contractor for performance of construction activities, either exclusively or in conjunction with others performing other work as part of the Project. The extent of the Project Site is shown on the Drawings and may or may not be identical with the description of the land upon which the Project is to be built.
- K. Testing Laboratories: A "testing laboratory" is an independent entity engaged to perform specific inspections or tests, either at the Project Site or elsewhere, and to report on and, if required, to interpret results of those inspections or tests.

1.3 REFERENCE STANDARDS

- A. Applicability of Standards: Except where the Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or

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copied directly into the Contract Documents. Such standards are made a part of the Contract Documents by reference.

- B. Publication Dates: Where the date of issue of a referenced standard is not specified, comply with the standard in effect as of bid date or date of Contract Execution, for projects that are not competitively bid.
- C. Upon request, the Contractor is required to make available at the job site within a reasonable time a copy of all referenced standards referred to in the Specifications. Standards are to be maintained in the Project Job Site Office Library for use by the Architect/Engineer, School District and School District's inspector for the purpose of establishing requirements applicable to equipment, materials, quality and workmanship.
- D. Conflicting Requirements: Where compliance with two or more standards is specified, and the standards establish different or conflicting requirements for minimum quantities or quality levels, refer requirements that are different, but apparently equal, and uncertainties to the Architect for a decision before proceeding.
 - 1. Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. In complying with these requirements, indicated numeric values are minimum or maximum, as appropriate for the context of the requirements. Refer uncertainties to the Architect for a decision before proceeding.

1.4 ABBREVIATIONS

- A. Abbreviations and Names: Trade association names and titles of general standards are frequently abbreviated. Where such acronyms or abbreviations are used in the Specifications or other Contract Documents, they mean the recognized name of the trade association, standards generating organization, authority having jurisdiction, or other entity applicable to the context of the text provision.
- B. Refer to the "Encyclopedia of Associations," published by Gale Research Co., available in most libraries or the Construction

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Specifications Institute (CSI) Technical Document TD-2-5
November 1989, entitled "Sources of Construction Information".

PART 2 – PRODUCTS - (Not Applicable)

PART 3 – EXECUTION - (Not Applicable)

END OF SECTION



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1111 E. Artesia Blvd
Compton, California 90221
(310) 900-1600

**RFQ CCC-059
Cafeteria and Music Bldg. HVAC & Fire Alarm**

Work Plan and Milestone Schedule

Task Name	Finish Date
Pre-bid Mandatory Job Walk:	11/08/19
Bid Opening:	11/21/19
Notice of Intent to Award:	11/21/19
Start Construction Phase:	12/16/19
Construction Completion:	06/30/20
Punchlist/Closeout completion:	06/30/20

CAFETERIA AND MUSIC BLDG HVAC AND FIRE ALARM PROJECT AND CONSTRUCTION SCHEDULE

ID	Task Name	Duration	Start	Finish	November	December	January	February	March	April	May	June	July				
					10/20 10/21 10/22 10/23 10/24 10/25 10/26 10/27 10/28 10/29 10/30 10/31 11/1 11/2 11/3 11/4 11/5 11/6 11/7 11/8 11/9 11/10 11/11 11/12 11/13 11/14 11/15 11/16 11/17 11/18 11/19 11/20 11/21 11/22 11/23 11/24 11/25 11/26 11/27 11/28 11/29 11/30	12/1 12/2 12/3 12/4 12/5 12/6 12/7 12/8 12/9 12/10 12/11 12/12 12/13 12/14 12/15 12/16 12/17 12/18 12/19 12/20 12/21 12/22 12/23 12/24 12/25 12/26 12/27 12/28 12/29 12/30 12/31	1/1 1/2 1/3 1/4 1/5 1/6 1/7 1/8 1/9 1/10 1/11 1/12 1/13 1/14 1/15 1/16 1/17 1/18 1/19 1/20 1/21 1/22 1/23 1/24 1/25 1/26 1/27 1/28 1/29 1/30 1/31	2/1 2/2 2/3 2/4 2/5 2/6 2/7 2/8 2/9 2/10 2/11 2/12 2/13 2/14 2/15 2/16 2/17 2/18 2/19 2/20 2/21 2/22 2/23 2/24 2/25 2/26 2/27 2/28 2/29	3/1 3/2 3/3 3/4 3/5 3/6 3/7 3/8 3/9 3/10 3/11 3/12 3/13 3/14 3/15 3/16 3/17 3/18 3/19 3/20 3/21 3/22 3/23 3/24 3/25 3/26 3/27 3/28 3/29 3/30 3/31	4/1 4/2 4/3 4/4 4/5 4/6 4/7 4/8 4/9 4/10 4/11 4/12 4/13 4/14 4/15 4/16 4/17 4/18 4/19 4/20 4/21 4/22 4/23 4/24 4/25 4/26 4/27 4/28 4/29 4/30	5/1 5/2 5/3 5/4 5/5 5/6 5/7 5/8 5/9 5/10 5/11 5/12 5/13 5/14 5/15 5/16 5/17 5/18 5/19 5/20 5/21 5/22 5/23 5/24 5/25 5/26 5/27 5/28 5/29 5/30 5/31	6/1 6/2 6/3 6/4 6/5 6/6 6/7 6/8 6/9 6/10 6/11 6/12 6/13 6/14 6/15 6/16 6/17 6/18 6/19 6/20 6/21 6/22 6/23 6/24 6/25 6/26 6/27 6/28 6/29 6/30	7/1 7/2 7/3 7/4 7/5 7/6 7/7 7/8 7/9 7/10 7/11 7/12 7/13 7/14 7/15 7/16 7/17 7/18 7/19 7/20 7/21 7/22 7/23 7/24 7/25 7/26 7/27 7/28 7/29 7/30 7/31				
1	Bidding	17 days	Thu 10/31/19	Fri 11/22/19	[Blue bar from 10/31 to 11/22]												
2	1st Advertisement	5 days	Thu 10/31/19	Wed 11/6/19	[Blue bar from 10/31 to 11/6]												
3	2nd Advertisement	5 days	Thu 11/7/19	Wed 11/13/19	[Blue bar from 11/7 to 11/13]												
4	Job Walk	1 day	Fri 11/8/19	Fri 11/8/19	[Blue bar at 11/8]												
5	RFC Deadline	1 day	Wed 11/13/19	Wed 11/13/19	[Blue bar at 11/13]												
6	Addendum	2 days	Thu 11/14/19	Fri 11/15/19	[Blue bar from 11/14 to 11/15]												
7	Bids Due	1 day	Thu 11/21/19	Thu 11/21/19	[Blue bar at 11/21]												
8	Post Bid Interview	1 day	Fri 11/22/19	Fri 11/22/19	[Blue bar at 11/22]												
9	Board Recommendation	3 days	Mon 11/25/19	Wed 11/27/19	[Blue bar from 11/25 to 11/27]												
10	Board Approval	1 day	Tue 12/10/19	Tue 12/10/19	[Blue bar at 12/10]												
11	Award of Contract	1 day	Wed 12/11/19	Wed 12/11/19	[Blue bar at 12/11]												
12	Execute Contract	2 days	Thu 12/12/19	Fri 12/13/19	[Blue bar from 12/12 to 12/13]												
13	Mobilize	1 day	Mon 12/16/19	Mon 12/16/19	[Blue bar at 12/16]												
14	Christmas Schedule	14 days	Tue 12/17/19	Fri 1/3/20	[Red bar from 12/17 to 1/3]												
15	Construction	140 days	Tue 12/17/19	Mon 6/29/20	[Blue bar from 12/17 to 6/29]												
16	February Break	7 days	Fri 2/7/20	Mon 2/17/20	[Red bar from 2/7 to 2/17]												
17	April Break	6 days	Fri 4/10/20	Fri 4/17/20	[Red bar from 4/10 to 4/17]												
18	June Break	13 days	Fri 6/12/20	Tue 6/30/20	[Red bar from 6/12 to 6/30]												

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QUALITY CONTROL

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. This Section specifies administrative and procedural requirements for quality control services.
- B. Quality control services include inspections and tests and related actions including reports, performed by independent agencies, governing authorities, and the Contractor. They do not include Contract enforcement activities performed by the Architect/Engineer.
- C. Inspection and testing services are required to verify compliance with requirements specified or indicated. These services do not relieve the Contractor of responsibility for compliance with Contract Document requirements.
- D. Requirements of this Section relate to customized fabrication and installation procedures, not production of standard products.
 - 1. Specific quality control requirements for individual construction activities are specified in the Sections that specify those activities. Those requirements, including inspections and tests, cover production of standard products as well as customized fabrication and installation procedures.
 - 2. Inspections, test and related actions specified are not intended to limit the Contractor's quality control procedures that facilitate compliance with Contract Document requirements.
 - 3. Requirements for the Contractor to provide quality control services required by the Architect/Engineer, Owner, or authorities having jurisdiction are not limited by provisions of this Section.

1.2 RELATED REQUIREMENTS SPECIFIED ELSEWHERE

- A. Inspections and testing required by laws, ordinances, rules, regulations or orders of public authorities: General Conditions.

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- B. Certification of Products: Respective specification sections.
- C. Test, Adjust and Balance of Equipment: Respective specification sections.

1.3 RESPONSIBILITIES

- A. The Owner will engage and pay for the services of an independent agency to perform inspections and tests specified as the Owner's responsibilities. Testing agency and project inspector shall have approval of the Division of the State Architect.

1.4 DEFICIENCIES

- A. Tests or inspections due to the following will be reimbursed to the Owner by deductive change order.
 - 1. Retesting because of failure of initial samples.
 - 2. Additional costs due to overtime work or extra shifts work because of improper scheduling of work or of delivery of materials by Contractor.
 - 3. Failure to properly notify laboratory.
 - 4. Changes in sources, lots or suppliers of materials after original tests.
 - 5. Changes in methods or materials of construction requested by Contractor that require testing, inspection, or other related services in excess of that required by original design.
 - 6. Concrete mix designs in excess of first successful design for each concrete type.
 - 7. Overtime or extra shift work requiring overtime work by Owner's Inspector.
 - 8. This contractor will have the sole responsibility of coordinating the Schedule with the Construction Manager for Owner/General Contractor, Bid Package 01, provided Fire Watch.

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1.5 TESTS

- A. Selection of the material required to be tested shall be the responsibility of the laboratory or the Owner's representative and not selected by the Contractor.
- B. The Contractor shall notify the Owner's representative a sufficient time in advance of the manufacture of material to be supplied by him under the Contract Documents, which must be tested, in order that the Owner may arrange for the testing of material at the source of supply.
- C. Any material shipped by the Contractor from the source of supply prior to satisfactory testing and inspection or prior to the receipt of notice from said representative that testing and inspection will not be required shall not be incorporated in the work.
- D. Duties of the Testing Agency: The independent testing agency engaged to perform inspections, sampling and testing of materials and construction specified in individual Specification Sections shall cooperate with the Architect/Engineer and Contractor in performance of its duties, and is to provide qualified personnel to perform required inspections and tests.
 - 1. Notify the Architect/Engineer and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.
 - 2. The agency is not authorized to release, revoke, alter or enlarge requirements of the Contract Documents, or approve or accept any portion of the Work.
 - 3. The agency shall not perform any duties of the Contractor.
- E. Perform specified instructions, sampling and testing of materials and methods of construction:
 - 1. Comply with specified standards; ASTM, other recognized authorities, and as specified.
 - 2. Ascertain compliance with requirements of Contract Documents.
 - 3. Comply with requirements of Title 24, Part I, Sec. 4-333.

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- F. Coordination: The Contractor and each agency engaged to perform inspections, tests, Fire Watch and similar services shall coordinate the sequence of activities to accommodate required services with a minimum of delay. In addition the Contractor and each agency shall coordinate activities to avoid the necessity of removing and replacing construction to accommodate inspections and tests.

1.6 SUBMITTALS

- A. Promptly submit copies of reports of inspections and tests mill analysis, concrete mix designs and certifications per applicable sections of the specifications.
1. Comply with requirements of Division of State Architect testing and inspection requirements.
 2. One copy of all test reports shall be forwarded to the Division of the State Architect by the testing agency. Such reports shall include all tests made, regardless of whether such tests indicated that the material is satisfactory or unsatisfactory. Samples taken but not tested 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, CCR and with the approved specifications. Test reports shall show the specified design strength. They shall also state definitely whether or not the material or materials tested comply with requirements.
 3. Verification of Test Reports: Each testing agency shall submit to the Office of the State Architect a verified report in duplicate covering all of the tests which are required to be made by the agency during the progress of the project. Such report shall be furnished each time that work on the project is suspended, covering the tests up to that time, and at the completion of the project, covering all tests.
 4. Submit one copy of all test reports to:
 - a. Owner
 - b. Architect/Engineer
 - c. Structural Engineer
 - d. Contractor

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- e. Inspector
- f. Division of the State Architect (DSA)
- g. Submit verification of test reports to DSA per Title 24, Part 1, CCR, Sec. 4-336.

1.7 QUALITY ASSURANCE

- A. All tests and inspection required by the Division of the State Architect are to be conducted in strict accordance with requirements of Title 24, CCR.
- B. Contractor shall comply with all Project Inspection Card requirements (DSA Form 152), DSA PR 13-01 and 13-02, and all related DSA required inspection and testing requirements.

1.8 INSPECTION BY THE SCHOOL DISTRICT

- A. The School District and its representative shall at all times have access for the purpose of inspection to all parts of the work and to the shops wherein the work is in preparation, and the Contractor shall at all times maintain proper facilities and provide safe access for such inspection.
- B. The School District shall have the right to reject materials and workmanship which are defective, or to require their correction. Rejected workmanship shall be satisfactorily corrected and rejected materials shall be removed from the premises without charge to the School District. If the Contractor does not correct such rejected work within a reasonable time, fixed by written notice, the School District may correct same and charge the expense to the Contractor.
- C. Should it be considered necessary or advisable by the School District 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 all necessary facilities, labor and materials. If such work is found to be defective in any respect due to fault of the Contractor or his subcontractor, he shall defray all 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 materials necessarily involved in the examination and replacement shall be allowed the Contractor.

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- D. District to provide an Inspector employed by the District in accordance with the requirements of the California Code of Regulations, Title 24, to be assigned to the work. His duties are specifically defined in Title 24, Part I, Sec. 4-342. The work of construction in all stages of progress shall be subject to the personal continuous observation of the Inspector. He shall have free access to any or 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 Contractor from any obligation to fulfill this Contract.

1.9 WORK BY DISTRICT'S INSPECTORS

- A. General inspection of construction.
- B. Concrete slump tests.
- C. Concrete cylinder samples.
- D. Cement samples and tests.
- E. Reinforcing Steel sample and test, (#5 and larger).
- F. Continuous inspection of Structural Concrete placement.
- G. Structural Steel sample and test.
- H. Continuous inspection of welds, (shop and field).

1.10 CONTRACTOR'S RESPONSIBILITIES

- A. Cooperate with laboratory personnel, provide access to work, to manufacturer's operations.
- B. Provide to laboratory, selected preliminary representative samples of materials to be tested, in required quantities.
- C. Furnish casual labor and facilities:
 - 1. To provide access to work to be tested.
 - 2. To obtain and handle samples at the site.

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3. To facilitate inspections and tests.
 4. For laboratory's exclusive use for storage and curing of test samples.
- D. Notify laboratory sufficiently in advance of operations to allow for his assignment of personnel and scheduling of tests. Per Specification Section 1305, the contractor will provide an updated 2 Week Look Ahead to ensure proper and timely scheduling.

PART 2 - PRODUCTS - (Not Applicable)

PART 3 - EXECUTION

3.1 MISCELLANEOUS TESTS AND INSPECTIONS

- A. Soil and Compaction Testing and Inspection: Performed by soils engineer employed and paid by the School District.
- B. Roofing Inspection: As specified in Section "Built-Up Roofing".
- C. Moisture and Bond Tests for resilient flooring and non-breathing floor surface materials. Performed by Independent Testing Agency and paid for by the School District.
- D. Special Tests: Special tests requested by School District, Architect or Division of the State Architect will be paid for by the School District, except that if such tests fail, the costs for failed tests and additional retesting shall be deducted from the Contract Price by Change Order.

3.2 SCHEDULE OF TESTS, INSPECTIONS AND METHODS

- A. Foundations (Chapter 18A):
 1. Earth Fill Compaction: 1802A
- B. Concrete (Chapter 19A):
 1. Materials:
 - a. Portland Cement Tests: 1929A.1
 - b. Concrete Aggregates: 1903A.3

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- c. Reinforcing Bars: 1903A.5, 1929A.2
 - d. Batch Plant Inspection and Tests: 1929A.4
 - 2. Concrete Quality:
 - a. Proportions of Concrete: 1905A.2.3, 1905A.3.1.1, 1905A.3.3.2, 1905A.4
 - b. Strength Tests of Concrete: 1905A.6
 - c. Splitting of Tensile Test 1905A.1.5
 - 3. Concrete Inspection:
 - a. Job Site Inspection: 1905A.7
 - b. Batch Plant or Weighmaster Inspection: 1929A.4
- C. Structural Steel (Chapter 22A):
 - 1. Materials:
 - a. Structural Steel, Cold-Formed Steel: 2203A.3
 - b. Structural Steel Construction: 2203A.2
 - 2. Inspection and tests of Structural Steel:
 - a. Tests of Structural and Cold Formed Steel: 2231A.1
 - b. Tests of End-Welded studs (Nelson Studs): 2231A.3
 - c. Welding Inspection: 2231A.5
 - d. High Strength Bolts: 2231A.2
- D. Wood (Chapter 23A):
 - 1. Materials:
 - a. Lumber and Plywood Grading: 2303A.1. 2303A.2
 - b. Glue-Laminated Member testing: 2337A.1

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Note: Chapters and Articles refer to 1997 UBC and 1998 Title 24 Part 2, California Building Code (CBC), 1998

3.3 REPAIR AND PROTECTION

- A. General: upon completion of inspection, testing, sample-taking and similar services, repair damaged construction and restore substrates and finishes to eliminate deficiencies, including deficiencies in visual qualities of exposed finishes. Comply with Contract Document requirements for "Cutting and Patching".
- B. Protect construction exposed by or for quality control service activities, and protect repaired construction.
- C. Repair and protection is the Contractor's responsibility, regardless of the assignment of responsibility for inspection, testing or similar service.

END OF SECTION

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TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section specifies requirements for temporary services and facilities, including utilities, construction and support facilities, security and protection.
- B. Temporary utilities required include but are not limited to:
 - 1. Water service and distribution.
 - 2. Temporary electric power and light.
 - 3. Telephone service with separate Fax line.
 - 4. Storm and sanitary sewer.
- C. Temporary construction and support facilities required include but are not limited to:
 - 1. Temporary heat.
 - 2. Field offices and storage sheds.
 - 3. Sanitary facilities, including drinking water.
 - 4. Temporary enclosures.
 - 5. Temporary Project identification sign.
 - 6. Waste disposal services.
- D. Security and protection facilities required include but are not limited to:
 - 1. Temporary fire protection. Coordination of Fire Watch.
 - 2. Barricades, warning signs.
 - 3. Environmental protection.

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4. Temporary security fencing when required and in compliance with the Phase temporary fencing provided by Bid Package xx.

1.2 SUBMITTALS

- A. Temporary Utilities: Submit reports of tests, inspections, meter readings and similar procedures performed on temporary utilities.

1.3 RELATED WORK

- A. All equipment furnished by subcontractors shall comply with all requirements of pertinent safety regulations. The ladders, planks, hoists, and similar items normally furnished by the individual trades in execution of their own portions of the work are not part of this section.
- B. Permanent installation and hook-up of the various lines are described in the other pertinent sections.

1.4 QUALITY ASSURANCE

- A. Regulations: Comply with industry standards and applicable laws and regulations of authorities having jurisdiction, including but not limited to:
 1. Building Code requirements.
 2. Health and safety regulations.
 3. Utility company regulations.
 4. Police, Fire Department and Rescue Squad rules.
 5. Environmental protection regulations.
- B. Standards: Comply with NFPA Code 241, "Building Construction and Demolition Operations", ANSI-A10 Series standards for "Safety Requirements for Construction and Demolition", and NECA Electrical Design Library "Temporary Electrical Facilities."
 1. Refer to "Guidelines for Bid Conditions for Temporary Job Utilities and Services", prepared jointly by AGC and ASC, for industry recommendations.

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2. Electrical Service: Comply with NEMA, NECA and UL standards and regulations for temporary electric service. Install service in compliance with National Electric Code (NFPA 70).
- C. Inspections: Arrange for authorities having jurisdiction to inspect and test each temporary utility before use. Obtain required certifications and permits.

1.5 PROJECT CONDITIONS

- A. Conditions of Use: Keep temporary services and facilities clean and neat in appearance. Operate in a safe and efficient manner. Take necessary fire prevention measures. Do not overload facilities, or permit them to interfere with progress. Do not allow hazardous dangerous or unsanitary conditions, or public nuisances to develop or persist on the site.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. General: Provide new materials; if acceptable to the Architect/Engineer, undamaged previously used materials in serviceable condition may be used. Provide materials suitable for the use intended.
- B. Water: Provide potable water approved by local health authorities.

2.2 FIELD OFFICE

- A. Provided by this Bid Package; Provide on-site, adequate field space for use by construction forces, the District Inspector, and the Architect during the time construction is in progress. The offices shall be conveniently located and shall be watertight and waterproof, clean, insulated, heated, cooled, lockable, provided with windows to give adequate light and ventilation, have electrical service outlets, and have a floor. Minimum size of temporary site construction is 360 square feet.
 1. The Contractor shall provide and pay for separate telephone service for phone and fax machine. Telephone and fax machines are to be on separate telephone line.

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2. Equip with a minimum of one desk and a layout table. Equip with additional folding chairs for field meetings.
 3. The offices, equipment, and furniture shall remain the property of the Contractor and shall be removed by contractor upon completion of work.
 4. A complete set of approved plans and specifications shall be kept in the office at all times.
- B. Inspectors Field Office: Contractor is required to provide for the use of the School District's Inspector a temporary office space to be located as directed by the Inspector and to be maintained until removal is authorized by the School District. Space is to have a lockable separate room area with a table for plans and a desk with two chairs. At least one entrance to Inspector office space is to be from the outside and not through the Contractors field office space. Provide and pay for high speed internet service. Maintain for Inspector until completion of the Contract.

2.3 TOILET FACILITIES

- A. Provided by Each Bid Package for their personnel; Provide, install and maintain, for during of the work, temporary outside toilet facilities for use of construction personnel. Toilet facilities shall be constructed, maintained and supplied as required for the numbers of construction personnel required, and according to local regulations.

2.4 FIRST AID

- A. Maintain such first aid supplies as may be required for minor accidents. Make arrangements with local emergency center and nearest hospital to receive cases requiring medical attention, including emergencies. Such information shall be conspicuously displayed at the construction office.

2.5 WATCHMAN SERVICES

- A. Provided by this Bid Package; The Contractor shall provide such watchman services as he may deem necessary to properly safeguard materials, tools, appliances, and work during all hours that operations under the Contract are not actively proceeding. The District will not assume any responsibility for the loss of or damage to materials, tools, appliances or work arising from acts of theft, vandalism, malicious mischief, or other causes.

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2.6 FIRE PROTECTION

- A. Provide fire extinguisher on the premises during the course of construction of the type and sizes recommended by the NBFU to control fires resulting from the particular work being performed. Instruct employees in their use. Place extinguisher in the immediate vicinity of the work being performed, ready to be used.
- B. During the use of hazardous equipment such as acetylene torches, welding equipment, bitumen kettles, salamanders and similar devices, no work shall be commenced or equipment used unless fire extinguisher of an approved type and capacity are placed in the working area and available for use by the workmen using such hazardous equipment.
- C. Provide fire extinguisher conforming to the requirements, as minimums, of NFPA 10 and 241.

2.7 SAFETY AND PROTECTION

- A. Provided by this Bid Package the Contractor shall furnish and erect temporary or permanent fences around the areas, as indicated on the drawings, and elsewhere where required for protection of the work, and to prevent unauthorized persons from entering the construction area. Temporary fences shall be at least eight feet (6'-0") above grade, of chain link or other substantial construction. Necessary gates for access to the site shall be placed where directed by the School District.
- B. Furnish or construct barricades, lights and other guards about the work area that may be required by local ordinance or for public safety and necessity. Protect all work from vandalism.

2.8 TEMPORARY UTILITY SERVICES

- A. Provided by this Bid Package; Power and Lighting: Furnish, install and maintain temporary wiring, poles, meter board, service entrance switch, lamps and equipment necessary to provide temporary lighting and power for the construction site.
 - 1. Temporary power is available from location as directed by the Power Company.
 - 2. Any temporary transmission lines required shall be installed by Contractor.

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3. Provide power sources within eighty feet of any working position to allow the use of one hundred foot extension cords.
- B. Water: Install required temporary connections to existing water. Locate temporary pipelines so that they do not interfere with traffic or drainage. Design and construct such pipelines so that they do not leak or cause damage or nuisance.
1. Upon completion of work, remove all temporary piping.

2.9 HEAT AND VENTILATION

- A. Provide temporary heat and ventilation as required to maintain adequate environmental conditions to facilitate the progress of the work, to meet specified minimum conditions for the installation of materials, and to protect materials and finishes from damage due to temperature and humidity.
1. Pay costs of installation, maintenance, operation and removal, and fuel consumed.

2.10 CONSTRUCTION AIDS

- A. Provide construction aids and equipment required by personnel and to facilitate the execution of the work; scaffolds, staging, ladders, stairs, ramps, runways, platforms, railings, hoists, cranes, chutes and other such facilities and equipment.
- B. Provide all necessary facilities and means of access to all parts of the structure so that Governmental Agency Inspectors, Special Inspectors and the Architect and Structural Engineer may inspect any portion of the structure.
1. Means of access includes, but is not limited to, ladders, and/or scaffolds.

2.11 ACCESS ROADS AND PARKING AREAS

- A. Prior to starting work, the Contractor, District and the Architect or his representative shall make a thorough survey of the site and approaches thereto. The Contractor will maintain temporary access roads required to perform the work and locate construction offices at locations approved by the Architect/Engineer and the District. The Contractor shall verify all grade elevations indicated

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on the Drawings at the site and immediately notify the Architect/Engineer if any deviations are found. The Contractor shall assume all responsibility if any work proceeds without such notification.

- B. Maintain specific vehicular access as required for the orderly progress of the work. Fill, compact and grade areas as necessary to provide suitable support during all weather conditions for anticipated loads including municipal fire apparatus. Provide adequate surface drainage and do not interrupt natural flow of existing drainage.
- C. Provide designated parking areas for use by construction personnel.
- D. Restore temporary vehicular access and parking areas to original or to specified conditions at completion of work.

2.12 TEMPORARY CONTROLS

- A. Provide and maintain methods, equipment, and temporary construction, as necessary to provide controls over environmental conditions at the construction site and related areas under Contractor's control; remove physical evidence of temporary facilities at completion of work.
- B. Dust Control: Provide positive methods and apply dust control materials and methods to minimize raising dust from construction operations. Provide positive means to prevent air-borne dust from dispersing into the atmosphere.
- C. Water Control: Provide methods to control surface water to prevent damage to the Project, the site, or adjoining properties.
 - 1. Control fill, grading and ditching to direct surface drainage away from excavations, pits, tunnels, and other construction areas; and to direct drainage to proper runoff.
 - 2. Provide, operate and maintain hydraulic equipment of adequate capacity to control surface water.
 - 3. Dispose of drainage water in a manner to prevent flooding, erosion, or other damage to any portion of the site or to adjoining areas.
- D. Pollution Control:

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1. Provide methods, means and facilities required to prevent contamination of soil, water or atmosphere by the discharge of noxious substances from construction operations.
 2. Provide equipment and personnel; perform emergency measures required to contain any spillages, and to remove contaminated soils or liquids.
- E. Excavate and dispose of any contaminated earth off-site, and replace with suitable compacted fill and topsoil.
1. Take special measures to prevent harmful substances from entering public waters and atmosphere.
 - a. Prevent disposal of wastes, effluent, chemicals, or other such substances in sanitary or storm sewers.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Use qualified personnel for installation of temporary facilities. Locate facilities where they will serve the Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required.
- B. Provide each facility ready for use when needed to avoid delay. Maintain and modify as required. Do not remove until facilities are no longer needed, or are replaced by authorized use of completed permanent facilities.

3.2 TEMPORARY UTILITY INSTALLATION

- A. General: Engage the appropriate local utility company to install temporary service or connect to existing service. Where the company provides only part of the service, provide the remainder with matching, compatible materials and equipment; comply with the company's recommendations.
 1. Arrange with the company and existing users for a time when service can be interrupted, where necessary, to make connections for temporary services.

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2. Provide adequate capacity at each stage of construction. Prior to temporary utility availability, provide trucked-in services.
 3. Obtain easements to bring temporary utilities to the site, where the Owner's easements cannot be used for that purpose.
 4. Use Charges: Cost or use charges for temporary facilities are not chargeable to the Owner or Architect, and will not be accepted as a basis of claims for a Change Order.
- B. Water Service: Install water service and distribution piping of sizes and pressures adequate for construction until permanent water service is in use. Water may be taken from existing site water supply.
1. Sterilization: Sterilize temporary water piping prior to use.
- C. Temporary Electric Power Service: Provide weatherproof, grounded electric power service and distribution system of sufficient size, capacity, and power characteristics during construction period. Include meters, transformers, overload protected disconnects, automatic ground-fault interrupters and main distribution switch gear.

3.3 PROJECT IDENTIFICATION AND SIGNS

- A. Project Identification and Temporary Signs: Prepare project identification and other signs of the size indicated; install signs where indicated to inform the public and persons seeking entrance to the Project. Support on posts or framing of preservative treated wood or steel. Do not permit installation of unauthorized signs.
- B. Provide temporary on-site informational signs.
1. As required by codes, laws and regulatory agencies.
 2. To identify key elements of the construction facilities.
 3. To direct traffic.
- C. Project Identification Sign: Size, design and information lettered as specified and as shown on drawing located at the end of this section. Finish with 3 coats of paint. Locate sign as indicated or directed by the Architect and School District.

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3.4 OWNERSHIP OF TEMPORARY FACILITIES AND CONTROLS

- A. Items provided by the Contractor under this section shall remain the property of the Contractor and shall be removed from the job site immediately upon completion of the work.

3.5 COLLECTION AND DISPOSAL OF WASTE

- A. Collect waste from construction areas and elsewhere daily. Comply with requirements of NFPA 241 for removal of combustible waste material and debris. Enforce requirements strictly. Do not hold materials more than 7 days during normal weather or 3 days when the temperature is expected to rise above 80 deg F (27 deg C). Handle hazardous, dangerous, or unsanitary waste materials separately from other waste by containerizing properly. Dispose of material in a lawful manner.

3.6 OPERATION, TERMINATION AND REMOVAL

- A. Termination and Removal: Unless the Architect requests that it be maintained longer, remove each temporary facility when the need has ended, or when replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with the temporary facility. Repair damaged Work, clean exposed surfaces and replace construction that cannot be satisfactorily repaired.
 - 1. Materials and facilities that constitute temporary facilities are property of the Contractor. The School District reserves the right to take possession of Project identification signs.

END OF SECTION

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PRODUCT OPTIONS

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. This Section establishes procedures for specified product options.
- B. The intent of this section is to insure that specified product options exceed or equal the quality of the specified products and are furnished and installed in accordance with the design intent.
- C. This Section does not apply to any substitution requests that should have been made at time of bid in accordance with the Instructions to Bidders and the bid documents. The District can reject any requests for substitution in its sole discretion if the Contractor did not submitted a request at the time of bid in accordance with the Instructions to Bidders and the bid documents.

1.2 RELATED SECTIONS

- A. Information for Bidders
- B. Instructions to Bidders
- C. General and Supplementary Conditions
- D. Section 01 25 00- Contract Modification Procedures
- E. Section 01 33 00 - Submittal Procedures
- F. Section 01 63 00 - Product Substitution Procedures

1.3 PRODUCT OPTIONS

- A. Where product options are included in the specifications sections and are specified by naming more than one, or several acceptable products or manufacturers, select any product or manufacturer listed.
 - 1. Where more than one manufacturer or product is listed in the specifications and only one manufacturer or product is specified in detail with model numbers and features, the one specified in detail shall be considered the standard of quality required for all manufacturers or products listed.

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- B. Where product options are included in the specifications and they are followed by an "or equal " or "approved equal" or equal meeting a specified standard, review and approval by the Architect/Engineer and School District is required for Contractor-proposed equal items. Procedures specified in Section 01630 are to be followed.
- C. For items specified only by Reference Standards, select any item meeting standards.
- D. Performance Specifications: For items specified by performance requirements, select any item meeting the performance standards specified.
- E. Descriptive Specifications: When specifications describe a product or assembly, listing exact components and characteristics, without the use of a brand or trade name, provide a product or assembly that contains the components and characteristics specified.
- F. Compliance with Standards Specifications: When specifications only require compliance with a Code, Regulation or Voluntary Standard, Provide products that comply with the specified Codes, Regulations or Standards.
- G. Submit request, as required for substitution, for any item or manufacturer not specifically named in the specifications on the Substitution Request Form enclosed with the Bidding Documents.
 - 1. Architect/Engineer and School District will determine acceptability of proposed substitutions.

PART 2 – PRODUCTS - (Not Applicable)

PART 3 – EXECUTION - (Not Applicable)

END OF SECTION

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PRODUCT SUBSTITUTION PROCEDURES

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. This Section establishes procedures for Contractor submittal of substitutions. This Section does not apply to any substitution requests that should have been made at time of bid in accordance with the Instructions to Bidders and the bid documents. The District can reject any requests for substitution in its sole discretion if the Contractor did not submitted a request at the time of bid in accordance with the Instructions to Bidders and the bid documents.
- B. This Section provides procedures for review and compliance with Public Contract Code section 3400 for the "or equal" clause allowing bidders to furnish any equal material, product, thing or service. Or equal items proposed by bidders are considered substitutions and are subject to approval of the Architect and School District. Burden of proof for "Or Equals" is the responsibility of the Contractor.
- C. The intent of this section is to insure that proposed substitutions exceed or equal the quality of the specified products and are furnished and installed in accordance with the Contract Documents.

1.2 RELATED SECTIONS

- A. Information for Bidders
- B. General and Supplementary Conditions
- C. Section 01 62 00 - Product Options
- D. Section 01 25 00- Contract Modification Procedures

1.3 SUBSTITUTIONS

- A. Substitution requests are to be submitted by Generals Contractors Only. Requests submitted by Subcontractors, Material Suppliers, Manufacturers and other interested parties, other than General Contractors, will not be considered. Submit requests on the attached **SUBSTITUTION REQUEST FORM (AFTER BID)** in section 1305. **Substitution requests will only be considered for**

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an “or equal” product specifically listed in the technical specifications for this project. No other substitutions will be considered. (ie if Carrier AC units are used on plans and specifications say “Carrier, Trane or York” – Trane or York would be considered as a substitution.)

- B. Comply with provisions of Articles for Substitutions in the Information for Bidders, General Conditions and any modifications to these documents provided in the Supplementary Conditions.
- C. Tabulate products by specification section number and title.
- D. Submit separate request for each substitution. Support each request with the information and documents below and any other requirements in the General Conditions Article 3.10.:
 - 1. Complete data substantiating compliance of proposed substitution with requirements stated in Contract Documents:
 - a. Product identification, including manufacturer's name and address.
 - b. Manufacturer's literature; identify:
 - i. Product description.
 - ii. Reference standards.
 - iii. Performance and test data.
 - iv. Fire resistance and fire ratings.
 - c. Samples, as applicable.
 - d. Name and address of similar projects on which product has been used, and date of each installation.
 - 2. Itemized comparison of the proposed substitution with product specified; list significant variations.
 - 3. Any effect the substitution may have on other trade contracts.
 - 4. List of changes required in other work or products.

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5. Accurate cost data comparing proposed substitution with product specified.
 - a. Amount of any change in cost.
 6. Designation of required license fees or royalties.
 7. Designation of availability of maintenance services, sources of replacement materials.
 8. Comparison of physical size and weight with product specified.
 9. Comparison of physical shape and available finishes.
- E. Substitutions will not be considered for acceptance when:
1. They are indicated or implied on shop drawings or product data submittals and where not approved in compliance with the General Conditions and this section.
 2. Substitution request procedures included in this Section, the Information for Bidders, and in the General and Supplementary Conditions are not complied with by the Contractor.
 3. The School District has determined that compatibility, standardization, technological sophistication, service and uniformity are necessary with regard to technological and certain safety items across the Schools in the District.
 4. The request for substitution, as determined by the District, should have been submitted at the time of bid in accordance with the Instructions to Bidders and the bid documents.
- F. Substitute products shall not be installed in the construction without written acceptance of the Architect and School District.
- G. Architect and School District will determine acceptability of proposed substitutions prior to awarding of the Contract. Substitutions may be approved after award of the Contract only where the following conditions exist and only at the School District's sole discretion:

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1. Specified item has been discontinued or is not unavailable to meet project schedule.
2. The School District requested the Substitution.
3. Substitution will reduce the Contract Amount and Contract Time (Credit Back to the District) without reducing quality.

1.4 CONTRACTOR'S SUBSTITUTION CERTIFICATION

- A. In making formal request for substitution contractor certifies that:
1. He has investigated proposed product and has determined that it is equal to or superior in all respects to that specified.
 2. He will provide same warranties or bonds for substitution as for product specified.
 3. He will coordinate installation of accepted substitution into the work, and will make such changes as may be required for the work to be complete in all respects including modification of the work of other trades.
 4. He waives claims for additional costs caused by substitution which may subsequently become apparent.
 5. Substituted material is similar in physical appearance, size and weight and will install with the same opening and attachments.
 6. Substituted material has the same or better fire rating and fire resistive qualities, including flame spread, smoke developed, UL tested and listing.
 7. Meets all requirement set forth in the General Conditions Article 3.10.

1.5 ARCHITECT'S/ENGINEER'S DUTIES

- A. Review contractor's request for substitutions with reasonable promptness.
- B. Consult with District and provide notification to contractor, in writing, of decision to accept or reject requested substitution.

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1.6 AVAILABILITY OF SPECIFIED ITEMS

- A. Verify prior to bidding that all specified and substituted items will be available in time for installation during orderly and timely progress of the work.
- B. In the event specified items will not be available, notify the Architect prior to receipt of bids.
- C. Cost of delays because of non-availability of specified items, when such delays could have been avoided by the Contractor, will be back-charged as necessary and shall not be borne by the Architect or School District.

1.7 SUBSTITUTION WARRANTY REQUIREMENTS

- A. Submit with the substitution request an executed Substitution Warranty. The Form is provided at the end of this Section. This form shall apply to substitutions submitted for acceptance prior to bid, prior to award of contract and for substitutions required after contract has been executed.
- B. The Contractor is to warrant, in writing on company letterhead, that the substituted items are to perform as specified, and assume complete responsibility for the same. This includes responsibility and costs required for modifications to building, other materials, or equipment, and any additional coordination with work of other trades. The Contractor if required or requested by the Architect or School District shall pay for testing, of Substitution proposed.

PART 2 – PRODUCTS - (Not Applicable)

PART 3 – EXECUTION - (Not Applicable)

END OF SECTION

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CLEANING

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes: Cleaning throughout the construction period and final project cleaning prior to the acceptance tour.
- B. Related Work Described Elsewhere: In addition to standards specified herein, comply with requirements for cleaning as described in other sections of these Specifications.

1.2 QUALITY ASSURANCE

- A. Inspection: Conduct daily inspection, and more often if necessary, to verify that requirements of cleanliness are being met.
- B. Codes and Standards: In addition to the requirements specified herein, comply with pertinent requirements of authorities having jurisdiction.

PART 2 - PRODUCTS

2.1 CLEANING MATERIALS AND EQUIPMENT

- A. Provide required personnel, equipment, and materials needed to maintain the specified standard of cleanliness.

2.2 COMPATIBILITY

- A. Use cleaning materials and equipment that are compatible with the surfaces being cleaned, as recommended by the manufacturer of the material to be cleaned.

PART 3 - EXECUTION

3.1 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 materials, and other items not required for construction of this work. Debris

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shall be removed from the site and disposed of in a lawful manner. Disposal receipts of dump tickets shall be furnished to Architect/Engineer upon request.

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. Daily, 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. Daily, 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 materials 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.

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- a. "Clean", for the purpose of this subparagraph, shall be interpreted as meaning free from foreign material that, in the opinion of the Architect, may be injurious to the finish floor material, i.e., "vacuum- clean".

3.2 FINAL CLEANING

- A. Definition: 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. General: Prior to completion of the work, remove from the job site all tools, surplus materials, equipment, scrap, debris, and waste and conduct final progress cleaning as described above.
- C. Site: 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:

- 1. 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. Interior: 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. Glass: Clean glass inside and outside.
- 4. Polished surfaces: On surfaces requiring the routine application or 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.

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- E. Timing: Schedule final cleaning as accepted by the Architect to enable the Owner to accept a completely clean project.

3.3 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.

END OF SECTION

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FIELD ENGINEERING

PART 1 - GENERAL

1.1 SUMMARY

- A. General: This Section specifies administrative and procedural requirements for field engineering services, including, but not necessarily limited to, the following:
 - 1. Land survey Work.
 - 2. Civil engineering services.
 - 3. Structural engineering services.

1.2 RELATED SECTIONS

- A. Section 01 33 00 - Submittals
- B. Section 310000 - Earthwork

1.3 SUBMITTALS

- A. Certificates: Submit a certificate signed by the Land Surveyor or Professional Engineer certifying that the location and elevation of improvements comply with the Contract Documents. These Surveys and updated "As-Builts" will be submitted with every pay application for review and acceptance by the Engineer and Inspector of Record.
- B. Submittal Copies of final as built property survey.
- C. Project Record Documents: Submit a record of Work performed and record survey data as required under provisions of Sections "Submittals", "Project Closeout", and Specification Number 01 78 20 – "Project Record Documents".

1.4 QUALITY ASSURANCE

- A. Surveyor: Engage a Registered Land Surveyor registered in the State where the project is located, to perform land surveying services required.

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- B. Engineer: Engage a Professional Engineer of the discipline required, registered in the state of California, in which the Project is located, to perform required engineering services.

PART 2 – PRODUCTS - (Not Applicable)

PART 3 - EXECUTION

3.1 EXAMINATION

- A. The District will identify existing control points and property line corner stakes.
- B. Verify layout information shown on the Drawings, in relation to the property survey and existing benchmarks before preceding to layout the Work. Locate and protect existing benchmarks and control points. Preserve permanent reference points (if any) during construction.
 - 1. Do not change or relocate benchmarks or control points without prior written approval. Promptly report lost or destroyed reference points, or requirements to relocate reference points because of necessary changes in grades or locations.
 - 2. Promptly replace lost or destroyed project control points. Base replacements on the original survey control points.
- C. Establish and maintain a minimum of two permanent benchmarks on the site, referenced to data established by survey control points.
 - 1. Record benchmark locations, with horizontal and vertical data, on Project Record Documents.
- D. Existing utilities and equipment: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning site work, investigate and verify the existence and location of underground utilities and other construction. Contact underground service alert at 1(800) 422-4133 before start of construction.
 - 1. Prior to construction, verify the location and invert elevation at points of connection of sanitary sewer, storm sewer and water service piping.

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3.2 PERFORMANCE

- A. Working from lines and levels established by the survey, establish benchmarks and markers to set lines and levels at each story of construction and elsewhere as needed to properly locate each element of the Project. Calculate and measure required dimensions within indicated or recognized tolerances. Do not scale Drawings to determine dimensions.
 - 1. Advise entities engaged in construction activities, of marked lines and levels provided for their use.
 - 2. As construction proceeds, check every major element for line, level and plumb.
- B. Surveyor's Log: Maintain a surveyor's log of control and other survey Work. Make this log available for reference.
 - 1. Record deviations from required lines and levels, and advise the Architect when deviations that exceed indicated or recognized tolerances are detected. On Project Record Drawings, record deviations that are accepted and not corrected.
 - 2. On completion of foundation walls, major site improvements, and other Work requiring field engineering services, prepare a certified survey showing dimensions, locations, angles and elevations of construction and site work.
- C. Site Improvements: Locate and lay out site improvements, including pavements, stakes for grading, fill and topsoil placement, utility slopes and invert elevations by instrumentation and similar appropriate means.
- D. Building Lines and Levels: Locate and lay out batter boards for structures, building foundations, column grids and locations, floor levels and control lines and levels required for mechanical and electrical Work.
- E. Existing Utilities: Furnish information necessary to adjust, move or relocate existing structures, utility poles, lines, services or other appurtenances located in, or affected by construction. Coordinate with local authorities having jurisdiction.

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- F. Final Property Survey: Before Substantial Completion, prepare a final property survey showing significant features (real property) for the Project. Include on the survey a certification, signed by the Surveyor, to the effect that principal metes, bounds, lines and levels of the Project are accurately positioned as shown on the survey.

END OF SECTION

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CUTTING AND PATCHING

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section specifies administrative and procedural requirements for cutting and patching, and interface of new work into existing construction and with work being performed under other contracts provided by the School District.
- B. Refer to other Sections for specific requirements and limitations applicable to cutting and patching individual parts of the work.
 - 1. Requirements of this Section apply to Sections in Divisions 2 through 16.

1.2 RELATED SECTIONS

- A. Section 01 01 00 - Summary of work (Scope of Work).
- B. Section 033000 - Cast-in-place Concrete
- C. Division 16 Sections

1.3 SUBMITTALS

- A. Cutting and Patching Proposal: Approval of procedures for cutting and patching is required before proceeding, submit a proposal describing procedures well in advance of the time cutting and patching will be performed and request approval to proceed. Include the following information, as applicable, in the proposal:
 - 1. Describe the extent of cutting and patching required and how it is to be performed.
 - 2. Indicate dates when cutting and patching is to be performed.
 - 3. List utilities that will be disturbed or affected, including those that will be relocated and those that will be temporarily out-of-service. Indicate how long service will be disrupted.
 - 4. Refer to Structural Drawing for locations where cutting and patching involves addition of reinforcement to structural

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elements. Do not damage or weaken existing structural elements.

5. Approval by the Architect/Engineer to proceed with cutting and patching does not waive the Architect's right to later require complete removal and replacement of a part of the work found to be unsatisfactory.

1.4 QUALITY ASSURANCE

- A. Visual Requirements: Do not cut and patch construction exposed on the exterior or in occupied spaces, in a manner that would, in the Architect's/Engineer's opinion, reduce the building's aesthetic qualities, or result in visual evidence of cutting and patching. Remove and replace work cut and patched in a visually unsatisfactory manner.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Use materials that are identical to existing materials. If identical materials are not available or cannot be used where exposed surfaces are involved, use materials that match existing adjacent surfaces to the fullest extent possible with regard to visual effect. Use materials whose installed performance will equal or surpass that of existing materials.

PART 3 - EXECUTION

3.1 INSPECTION

- A. Before cutting existing surfaces, examine surfaces to be cut and patched and conditions under which cutting and patching is to be performed. Take corrective action before proceeding, if unsafe or unsatisfactory conditions are encountered.

3.2 PREPARATION

- A. Temporary Support: Provide temporary support of work to be cut.
- B. Protection: Protect existing construction during cutting and patching to prevent damage. Provide protection from adverse

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weather conditions for portions of the Project that might be exposed during cutting and patching operations.

- C. Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.
- D. Take all precautions necessary to avoid cutting existing pipe, electrical wire and conduit or ductwork serving the building.

3.3 PERFORMANCE

- A. General: Employ skilled workmen to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time and complete without delay.
 - 1. Cut existing construction to provide for installation of other components or performance of other construction activities and the subsequent fitting and patching required to restore surfaces to their original condition.
 - 2. Where patching occurs in a smooth painted surface, extend final paint coat over entire surface containing the patch, after the patched area has received primer and second coat.
 - 3. Cut, patch, point-up and repair plaster to accommodate other construction and to repair cracks, dents and imperfections.
 - 4. Cut, patch, restore and repair all gypsum board wall and ceiling surfaces where new pipes, equipment, clocks, switches, conduit, ducts and any new construction items that would damage or cut existing surfaces.
 - 5. Cut patch and repair existing concrete and asphalt paving where new utility lines are installed across existing paving and under existing concrete floor slabs. Site verify extent of cutting and patching required. All existing site improvements may not be indicated on the site plan and floor plans.
 - 6. Cut existing walls, floors, ceilings and roofs or other parts of building structure to accommodate new ducts, conduits and piping, patch and repair existing.
 - 7. Patch existing floors, walls, roofs and ceilings where existing ducts, conduit, equipment, water, gas, sewer, windows, doors etc. that are not used or removed and are not to be

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replaced. This is considered part of required general patching and is part of the contract and will not be shown in detail on the Contract drawings. Field verify with existing site and building construction for patching required.

3.4 CLEANING

- A. Thoroughly clean areas and spaces where cutting and patching is performed or used as access. Remove completely paint, mortar, oils, putty and items of similar nature. Thoroughly clean piping, conduit and similar features before painting or other finishing is applied. Restore damaged areas to their original condition.

END OF SECTION

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WARRANTIES, GUARANTIES AND BONDS

PART 1 - GENERAL

1.1 WORK INCLUDED

- A. This Section specifies general requirements for written warranties, guaranties and bonds required by the Contract Documents.
- B. Submittal to, and approval by, the District of the warranties, guaranties and bonds are prerequisites to final payment under the Contract.

1.2 RELATED WORK

- A. Related work specified elsewhere:
 - 1. General Conditions –Section 00 72 00 Article 13
 - 2. Contract Close-out - Section 01 77 00

1.3 TIME PERIOD

- A. Deliver manufacturers' warranties, guaranties and bonds required by Contract Documents, with District named as beneficiary. For equipment and machinery, or components thereof, bearing a manufacturer's warranty or guaranty that extends for a longer time period than the Contractor's warranty and guaranty, deliver manufacturer's warranties or guaranties in same manner.

1.4 FORM

- A. Written warranties and guaranties, excepting manufacturer's standard printed warranties and guaranties shall be submitted on the Contractor's, Subcontractors, material suppliers', or manufacturers' own letterhead, addressed to District. Warranties and guaranties shall be submitted in duplicate, and in the form shown on the following page, signed by all pertinent parties and by Contractor in every case, with modifications as approved by District to suit the conditions pertaining to the warranty or guaranty.

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1.5 SUBMITTAL

- A. The Contractor shall collect and assemble written warranties and guaranties from all subs, material suppliers and manufacturers into a bound booklet form, and deliver the bound books to Architect/Engineer for delivery to the District's attorney for final review and approval.
- B. Submit required warranty/guaranty on letterhead of Contractor responsible for each type of Work in accordance with attached sample form.
- C. The contractor will ensure that the Manufacturers will be scheduled in a timely manner to ensure that the start of the warranty period is well documented.

END OF SECTION

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CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. Comply with requirements stated in Conditions of the Contract and in Specifications for administrative procedures in closing out the work.
- B. Related Requirements in Other Parts of the Project Manual:
 - 1. Fiscal provisions, legal submittals and additional administrative requirements: Conditions of the Contract.
- C. Comply with requirements set forth in General Conditions Article 9.

1.2 SUBSTANTIAL COMPLETION

- A. When Contractor considers the work is substantially complete as defined in the General Conditions, he shall submit to Architect/Engineer:
 - 1. A written notice that the work, or designated portion thereof, is substantially complete.
 - 2. A list of items to be completed or corrected.
 - 3. Complete start-up testing of systems, and instruction of the Owner's operating and maintenance personnel. Discontinue or change over and remove temporary facilities from the site, along with construction tools, mock-ups, and similar elements.
- B. When Architect/Engineer concurs that the work is substantially complete, he will:
 - 1. Prepare a letter of Substantial Completion accompanied by Contractor's list of items to be completed or corrected, as verified and amended by the Architect.
 - 2. Submit the Certificate to Owner and Contractor for their written acceptance of the responsibilities assigned to them.

1.3 FINAL INSPECTION

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- A. When Contractor considers the work is complete, he shall submit written certification that:
 - 1. Contract Documents have been reviewed.
 - 2. Work has been inspected for compliance with Contract Documents.
 - 3. Work has been completed in accordance with Contract Documents.
 - 4. Equipment and systems have been tested in the presence of the Owner's representative and are operational.
 - 5. Work is completed and ready for final inspection.
 - 6. The Architect's/Engineer's final inspection list of items to be completed or corrected, has been completed or otherwise resolved for acceptance, and the list has been endorsed and dated by the Architect/Engineer.
 - 7. Submit consent of surety to final payment.
 - 8. Submit a final liquidated damages settlement statement.
 - 9. Submit evidence of final, continuing insurance coverage complying with insurance requirements.
- B. Architect/Engineer will make an inspection to verify the status of completion with reasonable promptness after receipt of such certification.
- C. When the Architect/Engineer finds that the work is acceptable under the Contract Documents, he shall request the Contractor to make closeout submittals.

1.4 RECORD DOCUMENT SUBMITTALS

- A. General: Do not use record documents for construction purposes; protect from deterioration and loss in a secure, fire-resistive location; provide access to record documents for the Architect's reference during normal working hours.
- B. Record Drawings: Maintain a clean, undamaged set of blue or black line white-prints of Contract Drawings and Shop Drawings.

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Mark the set to show the actual installation where the installation varies substantially from the Work as originally shown. Mark whichever drawing is most capable of showing conditions fully and accurately; where Shop Drawings are used, record a cross-reference at the corresponding location on the Contract Drawings. Give particular attention to concealed elements that would be difficult to measure and record at a later date.

1. Mark record sets with red erasable pencil; use other colors to distinguish between variations in separate categories of the Work.
 2. Mark new information that is important to the Owner, but was not shown on Contract Drawings or Shop Drawings.
 3. Note related Change Order numbers where applicable.
 4. Organize record drawing sheets into manageable sets, bind with durable paper cover sheets, and print suitable titles, dates and other identification on the cover of each set per Specification 01 78 20 Project Record Documents.
- C. Record Specifications: Maintain one complete copy of the Project Manual, including addenda, and one copy of other written construction documents such as Change Orders and modifications issued in printed form during construction. Mark these documents to show substantial variations in actual Work performed in comparison with the text of the Specifications and modifications. Give particular attention to substitutions, selection of options and similar information on elements that are concealed or cannot otherwise be readily discerned later by direct observation. Note related record drawing information and Product Data.

1.5 CLOSEOUT SUBMITTALS

- A. Submit the following, where applicable, in accordance with the General Conditions and Specifications:
1. Project record documents.
 2. Operation and maintenance data.
 3. Warranties, guarantees and bonds.
 4. Keys and keying schedule.

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5. Spare parts and extra stock.
 6. Other items as required by the Specifications.
- B. Deliver Certificate of Compliance and Test Report as follows:
1. Sterilization of water systems.
 2. Testing of sewer systems.
 3. Testing of hot and cold water systems.
 4. Testing of gas system.
 5. Testing of lighting, power and alarm systems.
 6. Testing of HVAC equipment and exhaust fans.

1.6 FINAL APPLICATION FOR PAYMENT

- A. Contractor shall submit the final Application for Payment in accordance with procedures and requirements stated in the Conditions of the Contract.

PART 2 – PRODUCTS - (Not Applicable)

PART 3 - EXECUTION

3.1 CLOSEOUT PROCEDURES

- A. Operating and Maintenance Instructions: Arrange for each installer of equipment that requires regular maintenance to meet with the Owner's personnel to provide instruction in proper operation and maintenance. If installers are not experienced in procedures, provide instruction by manufacturer's representatives. Include a detailed review of the following items:
1. Maintenance manuals.
 2. Record documents.
 3. Spare parts and materials.
 4. Tools.

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5. Identification systems.
 6. Control sequences.
 7. Hazards.
 8. Cleaning.
 9. Warranties and bonds.
 10. Maintenance agreements and similar continuing commitments.
- B. As part of instruction for operating equipment, demonstrate the following procedures:
1. Start-up.
 2. Shutdown.
 3. Emergency operations.
 4. Noise and vibration adjustments.
 5. Safety procedures.
 6. Economy and efficiency adjustments.
 7. Effective energy utilization.

3.2 FINAL CLEANING

- A. General: General cleaning during construction is required by the General Conditions and included in Section "Temporary Facilities".
- B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to the condition expected in a normal, commercial building cleaning and maintenance program. Comply with manufacturer's instructions.
1. Complete the following cleaning operations before requesting inspection for Final Completion.
 - a. Remove labels that are not permanent labels.

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- b. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compound and other substances that are noticeable vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials.
 - c. Clean exposed exterior and interior hard-surfaced finishes to a dust-free condition, free of stains, films and similar foreign substances. Restore reflective surfaces to their original reflective condition. Leave concrete floors broom clean. Vacuum carpeted surfaces.
 - d. Wipe surfaces of mechanical and electrical equipment. Remove excess lubrication and other substances. Clean plumbing fixtures to a sanitary condition. Clean light fixtures and lamps.
 - e. Clean the site, including landscape development areas, of rubbish, litter and other foreign substances. Sweep paved areas broom clean; remove stains, spills and other foreign deposits. Rake grounds that are neither paved nor planted, to a smooth even-textured surface.
- C. Pest Control: Engage an experienced exterminator to make a final inspection, and rid the Project of rodents, insects and other pests.
- D. Removal of Protection: Remove temporary protection and facilities installed for protection of the Work during construction.
- E. Compliance: Comply with regulations of authorities having jurisdiction and safety standards for cleaning. Do not burn waste materials. Do not bury debris or excess materials on the Owner's property. Do not discharge volatile, harmful or dangerous materials into drainage systems. Remove waste materials from the site and dispose of in a lawful manner.
- 1. Where extra materials of value remaining after completion of associated Work have become the Owner's property, arrange for disposition of these materials as directed.

END OF SECTION

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PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Maintain at the site for the School District, one record copy of:
 - 1. Drawings
 - 2. Specifications
 - 3. Addenda
 - 4. Change Orders and other Modifications to the Contract
 - 5. Architect/Engineer written instructions
 - 6. Approved Shop Drawings, Product Data and Samples.
 - 7. Field Test Records
 - 8. Construction Photographs.

1.2 RELATED SECTIONS

- A. General Conditions - 00700
- B. Section 01 31 00 - Project Coordination
- C. Section 01 33 00 - Submittals
- D. Section 01305-31 - Contract Closeout
- E. Section 01 72 20 – Field Engineering

1.3 MAINTENANCE OF DOCUMENTS AND SAMPLES

- A. Store documents and samples in Contractor's field office apart from documents used for construction.
 - 1. Provide files and racks for storage of documents.
 - 2. Provide locked cabinet or secure storage space for storage of samples.

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- B. File documents and samples in accordance with CSI/CSC Master Format.
- C. Maintain documents in a clean, dry legible condition and in good order. Do not use record documents for construction purposes.
- D. Make documents and samples available at all times for inspection by School District.

1.4 MARKING DEVICES

- A. Provide felt-tip marking pens for recording information in the color code designated by Owner.

1.5 RECORDING

- A. Label each document "PROJECT RECORD" in neat, large printed letters.
- B. Record information concurrently with construction progress. Do not conceal any work until required information is recorded.
- C. Drawings: Legibly mark to record actual construction:
 - 1. Depth of various elements of foundation in relation to finish first floor datum.
 - 2. Horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
 - 3. Location of internal utilities and appurtenances concealed in the construction, referenced to visible and accessible features of the structure.
 - 4. Field changes of dimension and detail.
 - 5. Changes made by Addenda, Supplemental Instruction Construction Change Directive or by Change Order.
 - 6. Details not on original contract drawings.
 - 7. Revisions to electrical circuitry and locations of electrical Devices and equipment

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8. Identify each record drawing with the written designation of "RECORD DRAWING" in a prominent location.
- D. Specifications and Contract Document Modifications: Legibly mark each Section to record:
1. Manufacturer, trade name, catalog number, and Supplier of each Product and item of equipment actually installed.
 2. Supplier and Installer's name and contact information.
 3. Changes made by Addenda, Supplemental Instructions, and Construction Change Directive or by Change Order.
- E. Record Digital Data Files: Immediately before inspection for Substantial Completion, review marked-up record prints with Architect/Engineer, Construction Manager and Project Inspector. When authorized, prepare a full set of corrected digital data files of the Contract Drawings as follows:
1. Format: Same digital data software program, version, and operating system as the original Contract Drawings.
 2. Format: Annotated PDF electronic file with comment function enabled.
 3. Incorporate changes and additional information previously marked on record prints. Delete, redraw and add new details and notations where applicable.
 4. Refer instances of uncertainty to Architect/Engineer (through Construction Manager) for resolution.
 5. Architect/Engineer will furnish Contractor one set of digital files of the Contract Drawings, complete on same set, with all Addenda, clarifying Request for Information, Instruction Bulletins, Construction Change Documents, or any other changes, for use in recording information. Digital files shall be in AutoCAD (latest version) and PDF format.
 - a. Refer to section 01 33 00 "Submittal Procedures" for requirements related to use of architect's/engineer's digital data files.
 - b. Architect/Engineer will provide data file layer information. Record mark-ups in separate layers.

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- F. Record Drawings Labeling: Provide Hard copy and Digital copy (in PDF format) as follows:
1. Provide a Flash Drive for all Digital Record Drawing submittals with a letter of transmittal describing all contents and date of contents on the Flash Drive.
 2. Provide a folder in the Digital submittal labeled in capital letters naming the project i.e. CCC-051 PUBLIC SAFETY BUILDING.
 3. Provide sub-folders labeled in capital letters with the category and date of the as-builts i.e. CCC-051 PUBLIC SAFETY BUILDING – AS-BUILTS (CONTRACTORS NAME).
 4. Provide separate files in sub-folders labeled with drawing number and description i.e. FA0.0 Title.
 5. Submit documents to Architect/Engineer (through the Construction Manager) with claim for final Application for Payment.
 6. Final 5% retention will be held until as-builts are complete.

1.6 SUBMITTALS

- A. At the completion of the Project, deliver Record Documents to the Compton Community College District (through the Construction Manager). Architect/Engineer shall review documents for compliance with requirements as described above.
- B. Accompany submittal with transmittal letter in duplicate, containing:
1. Date
 2. Project title and number
 3. Contractor's name and address
 4. Title and number of each Record Document
 5. Signature of Contractor or his authorized representative
- C. Prior to the date of Substantial Completion the Contractor is to meet with the architect/engineer to determine which Samples

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maintained during construction are to be transferred to the School District. Dispose of all samples not be saved.

PART 2 – PRODUCTS - (Not Applicable)

PART 3 – EXECUTION - (Not Applicable)

END OF SECTION

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OPERATING AND MAINTENANCE DATA

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section specifies administrative and procedural requirements for operating and maintenance manuals including the following:
 - 1. Preparation and submittal of operating and maintenance manuals for building operating systems and/or equipment.
 - 2. Instruction of the School District's operating personnel in operation and maintenance of building systems and equipment.
- B. Special operating and maintenance data requirements for specific pieces of equipment or building operating systems are included in the appropriate Sections of Divisions 2 through 16.

1.2 QUALITY ASSURANCE

- A. Maintenance Manual Preparation: In preparation of Maintenance Manuals, use personnel thoroughly trained and experienced in operation and maintenance of the equipment or system involved.
 - 1. Where written instructions are required, use personnel skilled in technical writing to the extent necessary for communication of essential data.
 - 2. Where Drawings or diagrams are required, use draftsmen capable of preparing Drawings clearly in an understandable format.
- B. Instructions for the School District's Personnel: For instruction of the School District's operating and maintenance personnel, use experienced instructors thoroughly trained and experienced in the operation and maintenance of the building equipment or system involved.

1.3 SUBMITTALS

- A. Submittal Schedule: Comply with the following schedule for submittal of operating and maintenance manuals.

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1. Before Substantial Completion, when each installation that requires submittal of operating and maintenance manuals is nominally complete, submit two draft copies of each manual to the Architect/Engineer for review. Include a complete index or table of contents of each manual.
- B. Form of Submittal: Prepare operating and maintenance manuals in the form of an instructional manual for use by the Owner's operating personnel. Organize into suitable sets of manageable size. Where possible, assemble instructions for similar equipment into a single binder.
1. Binders: For each manual, provide heavy-duty, commercial quality, durable 3-ring vinyl covered loose-leaf binders, in thickness necessary to accommodate contents, sized to receive 8-1/2" by 11" paper. Provide a clear plastic sleeve on the spine, to hold labels describing the contents. Provide pockets in the covers to receive folded sheets.
 - a. Where two or more binders are necessary to accommodate data, correlate data in each binder into related groupings in accordance with the Project Manual table of contents. Cross-reference other binders where necessary to provide essential information for proper operation or maintenance of the piece of equipment or system.
 - b. Identify each binder on the front and spine, with the typed or printed title "OPERATION AND MAINTENANCE MANUAL", Project title or name, and subject matter covered. Indicate the volume number for multiple volume sets of manuals.
 2. Protective Plastic Jackets: Provide protective transparent plastic jackets designed to enclose diagnostic software for computerized electronic equipment.
 3. Text Material: Where written material is required as part of the manual use the manufacturer's standard printed material, or if it is not available, specially prepared data, neatly typewritten, on 8-1/2" by 11", 20 pound white bond paper.
 4. Drawings: Where drawings or diagrams are required as part of the manual, provide reinforced punched binder tabs on the drawings and bind in with the text.

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- a. Where oversized drawings are necessary, fold the drawings to the same size as the text pages and use as a fold-out.
- b. If drawings are too large to be used practically as a fold-out, place the drawing, neatly folded, in the front or rear pocket of the binder. Insert a typewritten page indicating the drawing title, description of contents and drawing location at the appropriate location in the manual.

1.04 MANUAL CONTENT

- A. In each manual include information specified in the individual Specification Section, and the following information for each major component of building equipment and its controls:
 1. General system or equipment description.
 2. Design factors and assumptions.
 3. Copies of applicable Shop Drawings and Product Data.
 4. System or equipment identification, including:
 - a. Name of manufacturer.
 - b. Model number.
 - c. Serial number of each component.
 5. Operating instructions.
 6. Emergency instructions.
 7. Wiring diagrams.
 8. Inspection and test procedures.
 9. Maintenance procedures and schedules.
 10. Precautions against improper use and maintenance.
 11. Copies of warranties.
 12. Repair instructions including spare parts listing.

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13. Sources of required maintenance materials and related services.
 14. Manual Index.
- B. Organize each manual into separate Sections for each piece of related equipment. As a minimum each manual shall contain a title page, a table of contents, copies of Product Data, supplemented by drawings and written text, and copies of each warranty, bond and service Contract issued.
1. Title Page: Provide a title page in a transparent plastic envelope as the first sheet of each manual. Provide the following information:
 - a. Subject matter covered by the manual.
 - b. Name and address of the Project.
 - c. Date of submittal.
 - d. Name, address, and telephone number of the Contractor.
 - e. Name and address of the Architect;
 - f. Cross reference to related systems in other operating and maintenance manuals.
 2. Table of Contents: After the Title Page, include a typewritten table of contents for each volume.
 3. General information: Provide a general information Section immediately following the Table of Contents, listing each product included in the manual, identified by product name. Under each product, list the name, address, and telephone number of the Subcontractor or installer, and the maintenance contractor. Clearly delineate the extent of responsibility of each of these entities. In addition, list a local source for replacement parts and equipment.
 4. Product Data: Where manufacturer's standard printed data is included in the manuals, include only sheets that are pertinent to the part or product installed. Mark each sheet to identify each part or product included in the installation.

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5. **Written Text:** Where manufacturer's standard printed data is not available, and information is necessary for proper operation and maintenance of equipment or systems, or it is necessary to provide additional information to supplement data included in the manual, prepare written text to provide necessary information. Organize the text in a consistent format under separate headings for different procedures. Where necessary, provide a logical sequence of instruction for each operating or maintenance procedure.
6. **Drawings:** Provide specially prepared drawings where necessary to supplement manufacturer's printed data to illustrate the relationship of component parts of equipment or systems, or to provide control or flow diagrams. Coordinate these drawings with information contained in Project Record Drawings to assure correct illustration of the completed installation.
7. **Warranties, Bonds and Service Contracts:** Provide a copy of each warranty, bond or service contract in the appropriate manual for the information of the Owner's operating personnel. Provide written data outlining procedures to be followed in the event of product failure. List circumstances and conditions that would affect validity of the warranty or bond.

1.05 MATERIAL AND FINISHES MAINTENANCE MANUAL

- A. **Architectural Products:** Provide manufacturer's data and instructions on care and maintenance of architectural products, including applied materials and finishes.
 1. **Care and Maintenance Instructions:** Provide information on care and maintenance, including manufacturer's recommendations for types of cleaning agents to be used and methods of cleaning. Provide information regarding cleaning agents and methods that could prove detrimental to the product. Include manufacturer's recommended schedule for cleaning and maintenance.
- B. **Moisture-Protection and Weather-Exposed Products:** Provide complete manufacturer's data with instructions on inspection, maintenance and repair of products exposed to the weather or designed for moisture-protection purposes.

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1.06 EQUIPMENT AND SYSTEMS MAINTENANCE MANUAL

- A. Manufacturer's Information: For each manufacturer of a component part or piece of equipment provide the following:
 - 1. Printed operating and maintenance instructions.
 - 2. Assembly drawings and diagrams required for maintenance.
 - 3. List of items recommended to be stocked as spare parts.
- B. Maintenance Procedures: Provide information detailing essential maintenance procedures, including the following:
 - 1. Routine operations.
 - 2. Trouble-shooting guide.
 - 3. Disassembly, repair and reassembly
 - 4. Alignment, adjusting and checking.
- C. Operating Procedures: Provide information on equipment and system operating procedures, including the following:
 - 1. Start-up procedures.
 - 2. Equipment or system break-in.
 - 3. Routine and normal operating instructions.
 - 4. Regulation and control procedures.
 - 5. Instructions on stopping.
 - 6. Shut-down and emergency instructions.
 - 7. Summer and winter operating instructions.
 - 8. Required sequences for electric or electronic systems.
 - 9. Special operating Instructions.
- D. Servicing Schedule: Provide a schedule of routine servicing and lubrication requirements, including a list of required lubricants for equipment with moving parts.

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- E. Controls: Provide a description of the sequence of operation and as-installed control diagrams by the control manufacturer for systems requiring controls.
- F. Coordination Drawings: Provide each Contractor's Coordination Drawings.
 - 1. Provide as-installed color-coded piping diagrams, where required for identification.
- G. Valve Tags: Provide charts of valve tag numbers, with the location and function of each valve.
- H. Circuit Directories: For electric and electronic systems, provide complete circuit directories of panel boards, including the following:
 - 1. Electric service.
 - 2. Controls.
 - 3. Communication.

1.07 INSTRUCTIONS TO SCHOOL DISTRICT PERSONNEL

- A. Prior to final inspection, instruct School District personnel in operation, adjustment, and maintenance of products, equipment and systems. Provide instruction at mutually agreed upon times.
 - 1. For equipment that requires seasonal operation, provide similar instruction during other seasons.
 - 2. Use operation and maintenance manuals for each piece of equipment or system as the basis of instruction. Review contents in detail to explain all aspects of operation and maintenance.

PART 2 – PRODUCTS - (Not Applicable)

PART 3 – EXECUTION - (Not Applicable)

END OF SECTION

COMPTON COMMUNITY COLLEGE DISTRICT

COMMISSIONING

PART 1 – GENERAL

1.1 SUMMARY

- A. Commissioning is a process for validating and documenting that the facility and its systems are constructed and perform in conformity with the Contract Documents.
- B. The objective of the commissioning process is to verify that the performance of the facility and its systems meet or exceed the design intent.
- C. Commissioning includes special facility start-up processes used to bring the facility to a fully operational state, free of deficiencies in an efficient and timely manner
- D. Training on related systems and equipment operation and maintenance shall be scheduled to commence only after start-up is complete and systems are verified to be 100% complete and functional.

1.2 DESCRIPTION

- A. The following applies to all Contract Documents
 - 1. Contractor Startup: Sub-phase of Contractor's work ending with Acceptance of Work, during which Contractor performs a pre-planned program of activities including starting, testing, inspecting, adjusting balancing, correcting deficiencies and other similar activities.
 - a. The Construction Manager, Architect/Engineer, Consultants and the DSA Inspector of Record (IOR) shall be present to observe, inspect and identify deficiencies in Building Systems Operations.
 - 2. The completion of startup means the entire Construction Project including startup and fine tuning has been performed to the requirements of the Contract Documents and is verified in writing by the Construction Manager, Architect/Engineer and the Consultants.

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3. Fine Tuning: Fine tuning is the responsibility of Contractors after District occupancy and ending one year after District occupancy. During this time the Contractor is responsible for optimizing systems and correcting deficiencies arising under normal operating conditions.
 - a. Includes a period after occupancy where systems are optimized under "live" operating conditions and any outstanding construction deficiencies are corrected.
 - b. Fine Tuning shall extend from date of District occupancy to one year after occupancy.

1.3 RELATED SECTIONS – (Not Applicable)

1.4 DEFINITION OF TERMS

- A. Contractor's Pre-Commissioning Checklists: Includes installation and start-up items as specified to be completed by the appropriate contractors prior to operational verification through the functional testing process.
- B. Installation Verification Process: Includes the on-site inspection and review of related system components for conformance to Contract Documents. The Contractor shall verify systems readiness for functional testing procedures prior to the start of functional testing. Deficiencies will be documented by the Inspector for future resolution.
- C. Functional Performance Testing Process: Includes the documented testing of system parameters, under actual or simulated operating conditions. Final performance commissioning of systems will begin only after the appropriate Contractor certifies that systems are 100% complete and ready for functional testing. The contractors will be required to schedule, coordinate and perform device tests, calibration and functional performance test procedures.
- D. Deficiencies and Resolutions List: Includes a list of noted deficiencies discovered as a result of the commissioning process. This list also includes the current disposition of issues, and the date of final resolution as confirmed by the Construction Manager and Inspector. Deficiencies are defined as those issues where products execution or performance does not satisfy the Project Contract Documents and/or the design intent.

1.5 COMMISSIONING SCHEDULE

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- A. Provide schedules for Contractor Start-Up work.
- B. Incorporate in overall construction schedule.
- C. Contractor's activities, which will be performed as specified under Fine Tuning, shall be completed within one year from date of occupancy by the District.

1.6 SUBMITTALS

- A. Submit Draft and Final Contractor Start-up Forms as described in this Section. Submit Draft Report for Construction Manager and Architect's review and comment prior to Final Submission.
- B. Prepare and submit one copy of report form to be used in preparation of system reports for:
 - 1. Each mechanical system as required
 - 2. Each Electrical & low voltage system as required.
- C. Each System Report shall be submitted including the following:
 - 1. Project Name
 - 2. Name of System
 - 3. Manufacturer's equipment start-up reports.
 - 4. Systems' testing, balancing, and adjusting reports.
 - 5. Equipment Report Forms shall include the following: Project name, name of equipment, starting and testing procedures to be performed and observations and test results to be recorded.

1.7 COMMISSIONING DUTIES AND RESPONSIBILITIES

- A. Contractors Duties and Responsibilities:
 - 1. Assure the participation and cooperation of Subcontractors and Suppliers under their jurisdictions as required to complete the commissioning process.

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2. Complete Commissioning Report Forms. Reports are to be completed in a neat easily readable condition.
3. Complete the respective start-up and check out procedures and insure readiness of equipment and systems prior to the start of the functional performance testing.

Written confirmation of system readiness for performance testing is required.

4. Provide qualified representatives for the functional performance commissioning process.
5. Assure that all subcontractors, suppliers, test and balance, controls, etc. include in there respective contracts cost necessary to participate in and complete the commissioning process.

B. Duties and responsibilities of others for Commissioning:

1. The commissioning process requires the active participation of the Construction Manager, School District, Mechanical Engineer, Electrical Engineer, and any other related Consultants on the project.

1.8 SYSTEM FAILURES

- A. After a second failure of a system to successfully meet the criteria as set for in the functional performance testing process, the contractor shall reimburse the School District for cost associated with any additional retesting required due to uncorrected deficiencies. Costs shall include salary, benefits, overhead, travel costs and per diem lodging costs if applicable.

PART 2 – PRODUCTS - (Not Applicable)

PART 3 – EXECUTION - (Not Applicable)

END OF SECTION

SECTION 22 00 00

PLUMBING

1. PART 1 - GENERAL

1.1 WORK INCLUDED

- A. Furnish all labor, materials, services, testing, transportation and equipment necessary for the completion of all plumbing work as indicated on drawings and specified herein. Work materials and equipment not indicated or specified which is necessary for the complete and proper operation of the work of this Section in accordance with the true intent and meaning of the contract documents shall be provided and incorporated at no additional cost to the Owner.

1.2 QUALITY ASSURANCE

- A. Code Requirements: All work covered by this Section shall conform to the latest requirements of the following regulations:
 - 1. C.C.R., Title 24, Part 5 (2016 CPC).
 - 2. 2016 California Plumbing Code.
 - 3. 2016 California Green Code.
 - 4. SMACNA Seismic Restraint Manual Guidelines for Mechanical Systems.
 - 5. California Division of the State Architect
 - 6. National Fire Protection Association.
 - 7. California State Division of Industrial Safety.
 - 8. County Health Department.
 - 9. Any other legally constituted body-having jurisdiction thereof.
- B. Nothing in the specifications or drawings shall be construed to permit deviation from the requirements of governing codes unless approval for said deviation has been obtained from the legally constituted authorities having jurisdiction and from the Owner's representative.

1.3 DRAWINGS

- A. Because of the small-scale drawings, it is not possible to indicate all offsets, fittings and accessories which may be required. The Contractor shall carefully investigate the conditions surrounding installation of his work, furnishing the necessary piping, fittings, valves, traps, and other devices which may be required to complete the installation.
- B. The general arrangement indicated on the drawings shall be followed as closely as possible. Coordinate with the Architectural, Structural, Mechanical and Electrical Drawings and the work of other trades prior to installation of piping fixtures and equipment to verify adequate space available for installation of the work shown. In the event a field condition arises which makes it impossible to install the work as indicated, submit, in writing, the proposed departures to the Architect for his approval. Only when Architect's approval is given, in writing, shall Contractor proceed with installation of the work.
- C. Special Note: Should the Contractor make changes in the installation differing from what is indicated on the contract drawings and not necessitated due to field conditions as indicated hereinabove, the Contractor shall be required to re-install the work to comply with what has been indicated on the contract drawings. Should it be impossible to re-install the work and the installation is in accordance with all governing authorities, the architect may permit the installation to remain. However, all costs incurred to revise the contract drawings by the engineer for

resubmittal to the building department indicating the as-installed condition shall become the responsibility of the Contractor.

- D. In case of a difference in the specifications or between the specifications and the drawings, the Contractor shall figure the most expensive alternate and after award of contract, shall secure direction from the Architect.

1.4 PERMITS, INSPECTIONS AND LICENSES

- A. All permits, inspections and licenses required by the legally constituted authorities for installation of the work according to the plans and specifications shall be obtained and paid as a part of the work of this section.

1.5 UTILITIES

- A. See Drawings for Points of Connection.

1.6 EXAMINATION OF PREMISES

- A. Before bidding on this work, Contractors shall make a careful examination of the premises and shall thoroughly familiarize themselves with the requirements of the contract. By the act of submitting a proposal for the work included in this contract, the Contractor shall be deemed to have made such study and examination, and that he is familiar with and accepts all conditions of the site.

1.7 PROTECTION

- A. All work, equipment and materials shall be protected at all times. Contractor shall make good all damage caused either directly or indirectly by his own workmen. Contractor shall also protect his own work from damage. He shall close all pipe openings with caps or plugs during installation. He shall protect all his equipment and materials against dirt, water, chemical and mechanical injury. Upon completion, all work shall be thoroughly cleaned and delivered in a new condition.
- B. Contractor shall be held responsible for all damage to equipment and materials until he has received written notice from the Architect or Engineer that his work has been accepted.

1.8 LOCATIONS

- A. The locations of apparatus, piping and equipment indicated on the drawings are approximate. Piping and equipment shall be installed in such a manner as to avoid all obstruction, preserve headroom, and keep openings and passages clear. The locations of and mounting heights of all fixtures shall be coordinated with the architectural plans and room elevations.
- B. Clearances and Openings: Contractor shall cooperate and coordinate his work with all other trades to avoid conflict and permit for a neat and orderly appearance of the entire installation. The Contractor shall, in advance of the work, furnish instructions to the General Contractor as to his requirements for equipment and material installation of any kind, whether or not specifically mentioned on drawings or in the specifications, and shall include recesses, chases in walls, and all required openings in the structure. Should furnishing this information be neglected, delayed or incorrect and additional cuttings are found to be required, the cost of the same shall be charged to this Contractor.
- C. Contractor shall verify and coordinate pipe routing with location of all electrical rooms, elevator equipment rooms, telecom/data rooms, and other rooms dedicated to the housing of switchgear, panels, or other electrical equipment. In no case shall piping be installed within or above the ceiling of such rooms.

1.9 SUBMITTAL DATA (Also see General Conditions)

- A. Submittal Requirements:
 - 1. Furnish, all at one time, prior to any installation, within the time noted below, six (6) copies of valid submittal data on all fixtures, material, equipment and devices. Each submitted item shall be indexed and referenced to these specifications and to identification numbers on fixtures and equipment schedules.

2. Manufacturers' submittal literature and shop drawings are required on all items to ensure the latest and most complete manufacturer's data is available for review. Requirements of the submittals and Engineer's submittal notes are a part of the work of this Division except that Engineer's notes may not be used as a means of increasing the scope of work of this Division.
 3. Submittals will be checked for general conformance with the design concept of the project but the review does not guarantee quantities shown and does not supersede requirements of this Division to properly install work.
 4. To be valid, all submittals must:
 - a. Be delivered to the Architect's office within seven (7) days of award of the contract. Contractor shall make time allowance for Engineer's review, return of comments, if any, and resubmittal if required. Corrections or changes in submittals returned as inadequate or incomplete shall be accomplished within this time limit.
 - b. Clearly indicate and label as such any items proposed as substitution for that specified or shown on plans.
 - c. Include all pertinent construction, installation, performance and technical data.
 - d. Have all product data sheets clearly labeled to indicate the individual items being submitted. In addition, all required options and accessories shall be clearly marked.
 - i. Product data sheets corresponding to items indicated on plans shall be clearly labeled with the corresponding fixture or equipment tag number.
 - ii. Product data sheets corresponding to items indicated in specifications shall be clearly labeled with the specification section, page and item numbers.
 - e. Include, for every item which differs in size, configuration, connections, service, accessibility or any other significant way, a drawing to the same (or larger) scale as to the pertinent portions of the contract drawings. In this drawing show a complete layout of the system except that which is identical to the contract drawings, unless the unchanged portions must be shown to indicate such things as clearances. This drawing, together with the contract design drawings must show the complete system as revised to accommodate the proposed alternate.
- B. Substitution Requirements:
1. Any items included in submittals and proposed by the Contractor as substitution for that specified or shown on plans shall be submitted within seven (7) days of award of the contract. After such time, proposed substitutions shall not be accepted for review, and the Contractor shall submit all items as specified or shown on plans.
 - a. For each item proposed as substitution for that specified or shown on plans, copies of product data sheets for the specified item shall be placed side by side with product data sheets for the proposed substitution item within the submittal.
 - i. In addition to the Submittal Requirements for labeling listed above, product data sheets for the specified item shall be clearly labeled "SPECIFIED ITEM, NOT SUBMITTED". Product data sheets for the corresponding proposed substitution item shall be clearly labeled "PROPOSED SUBSTITUTION".
 - b. Provide calculations and other detailed data justifying how any items proposed as substitution were selected for proposal. Data must be complete enough to permit detailed comparison of every significant characteristic for which the specified item was analyzed during design.
 2. It shall be the Contractor's responsibility to provide sufficient information to allow the Engineer to analyze any proposed alternate. If inadequate information is provided, the proposal will not be approved, and resubmittal will not be allowed.
 3. The Contractor shall provide or perform tests required by Engineer for purpose of judging acceptability of proposed substitutions.

4. The Contractor assumes full responsibility that alternate items and procedures will meet the job requirements and is responsible for cost of redesign and of modifications to this and other parts of work caused by alternate items furnished under work in this Section. In view of these responsibilities, it is the purpose of these specifications to establish procedures to ensure that the Contractor has considered all the ramifications of proposed alternates before submitting them for review. Submittals which do not comply with the requirements of these specifications or which indicate proposed alternates that were selected without proper regard to the requirements of the job will not be approved. No more than one proposed alternate will be considered for each item.
5. Alternate items installed without Engineer's approval will be replaced with specified items at Contractor's expense.
6. The Architect or his authorized representative shall be the sole judge as to the quality and suitability of proposed alternate equipment, fixtures or materials. Decisions of the Architect or that of his representative shall be final and conclusive.

1.10 UNINSPECTED WORK

- A. The Contractor shall not allow or cause any of his work to be covered up or closed in until it has been inspected, tested, approved by all authorities have jurisdiction, and until Project Record drawings have been properly annotated.
- B. Should any of his work be covered up or closed in before such inspection, he shall, at his own expense, uncover the work to the satisfaction of the inspection party. All related repair work cost shall be borne by the Contractor.

1.11 RECORD DRAWINGS (Also see General Conditions)

- A. Contractor shall provide and keep up-to-date a complete "as-built" record set of blueline prints which shall show every change from the original drawings and the exact "as-built" locations and sizes of the work provided under this Section of the specifications. This set shall include locations, dimensions, depth of buried piping, cleanouts, shut-off valves, sewer invert locations, plugged wyes, tees, etc. On completion of the work, the Contractor shall incorporate all as-built information on a set of reproducible tracings provided by the Architect and this set of reproducible shall be delivered to the Architect.

1.12 GUARANTEES (Also see General Conditions)

- A. Contractor shall guarantee the entire plumbing and piping systems unconditionally for a period of one (1) year after final acceptance. If, during this period, any materials, equipment, or any part of the systems fail to function properly, the Contractor shall make good the defects promptly and without any expense to the Owner.
- B. Contractor shall be responsible for all damage to any part of the premises caused by leaks in pipelines or equipment furnished and installed under this Section for a period of one (1) year after date of acceptance of his work.
- C. All equipment and fixtures shall carry manufacturer's warranty against defective parts or poor workmanship for not less than one (1) year. See specific equipment specifications for extended warranty requirements.

2. PART 2 - PRODUCTS

2.1 MATERIALS AND EQUIPMENT (See Schedules on Drawings)

- A. General: All materials, as specified or required in the work, shall be new, free from defects and imperfections.
- B. Pipe and Fittings:
 1. Domestic Water Piping:
 - a. Piping within the building and above grade shall be Type "L" ASTM B88, hard drawn copper tubing with wrought copper sweat fittings ANSI B16.18 and B16.22

- b. Outdoor underground piping in sizes 2-1/2" and 3" shall be Type "L" ASTM B88, hard drawn copper as specified for water piping within the building. Piping 2" and smaller shall be Type "K" ASTM B88, hard drawn copper with wrought copper sweat fittings ANSI B16.18 and B16.22
 - c. Piping below the building floor shall be Type "K" soft annealed copper tubing with no fittings below the slab.
 - 2. Air Conditioning Condensate Drain Piping.
 - a. Shall be Type "M" copper as specified for water piping.
 - 3. All exposed piping at plumbing fixtures shall be chrome plated yellow brass except exposed pipes in shop or utility areas.
 - 4. Unions or flanges shall be furnished and installed at each threaded connection to all equipment or valves. The unions or flanges shall be located so that the piping can be easily disconnected for removal of the equipment, tank, or valve, and shall be of the type specified in the following schedule.
 - a. Unions:
 - i. Black Steel Pipe: 250 pound screwed black malleable iron, ground joint, brass to iron seat.
 - ii. Galvanized Steel Pipe: 250 pound screwed galvanized malleable iron, ground joint, brass to iron seat.
 - iii. Copper or Brass Tubing: 150 pound cast bronze or copper, ground joint, nonferrous seat with ends, by Walseal, Nibco or Mueller.
 - b. Flanges: Tube Turn or approved equal, raised face 150 pound class forged steel, weld, neck or slip-on type conforming to ASA B16.5 and ASTM A181. For copper piping systems, provide flanges conforming to ANSI B16.24. The faces of the flanges being connected to be alike in all cases. Locate flanges so that the piping can be easily disconnected for removal of the equipment or valve. Gasket material shall be of material suiting the service of the opening system in which installed and which conforms to its respective ANSI Standard (A21.11. B16.21). Provide materials that will not be detrimentally affected by the chemical and thermal conditions of the fluid being carried.
 - 5. All piping on roof shall be supported by pipe supports as manufactured by MAPA Products. Products by Miro Industries and Erico shall be accepted for submittal review.
 - a. Pressurized Piping:
 - i. For pipe sizes 1" and less: MS-1 single post, adjustable height pipe support.
 - ii. For pipe sizes 2 1/2" and less: MS-4 adjustable, roller pipe support.
 - iii. For pipe sizes 4" and less: MS-5 adjustable, roller pipe support.
 - b. Gravity System Piping 2" and Less: MS-1 single post, adjustable height pipe support.
 - 6. All underground non-metallic piping shall have 14 gauge copper "Tracer Wire" continuous for entire length.
- C. Access Panels: Wall access panels shall be minimum 12" x 12" for concealed valves and other equipment unless otherwise specified or indicated. Ceiling access panels shall be 18" x 18" minimum. Access panels shall be located and positioned for ready access and service of equipment housed within. Where access panels are specified with keyed cylinder locks, all such locks shall be identically keyed.
 - 1. Wall, Non-Fire Rated: Elmdor/Stoneman DW-SS-CL, drywall, stainless steel finish, cylinder lock.
 - 2. Ceiling, Non-fire Rated: Elmdor/Stoneman DW, drywall, prime coated finish, screwdriver latch.

3. Wall, Fire Rated: Elmdor/Stoneman FR-SS-CL, fire rated, stainless steel finish, cylinder lock.
 4. Ceiling, Fire rated: Elmdor/Stoneman FRC, Fire rated, prime coated finish, return latch.
- D. Roof Flashing:
1. Water, gas, condensate drainage and other metallic piping thru roof: Stoneman No. 1100-4, one (1) piece, seamless, four (4) pound, series with reinforcing steel boot counterflashed with cast iron flashing sleeve. Seal joint between flashing and pipe with waterproofing compound per flashing manufacturer's recommendations
- E. Escutcheons: Shall be chrome plated cast brass with setscrew locking device.
- F. Dielectric Union Isolators: Connection between incompatible materials above grade and inside building shall be made with two (2) dielectric unions separated by a twelve inch (12") section of red brass pipe. Dielectric union isolator for connection piping or non-compatible materials shall be of standard commercial design with threaded connections.
- G. Pipe Supports: Unless otherwise indicated on the drawings, shall be as follows:
1. The Contractor shall furnish and install all miscellaneous iron work including angles, channels, etc., required to appropriately support the various piping systems. Hanger spacing and location shall conform to Uniform Plumbing Code requirements.
 2. All horizontal runs of piping within the building to be supported from the structural framing with steel rods and split ring hangers, B-Line, Grinnell Company, Tolco, or approved equal. Steel rods shall be secured to overhead framing with side beam connectors. Where necessary, install angle iron between framing to accommodate hanger rods. Where several pipes are running together, Unistrut, B-Line or Powerstrut channels with clamps may be used in lieu of individual pipe hangers, and supported from structure as herein specified. Submit test data for type of hanger supports to be provided. For support conditions other than specified herein, the Contractor shall submit method of support for approval prior to any installation.
 3. Horizontal Piping Hangers and Supports:
 - a. General: Provide factory fabricated horizontal hangers and supports complying with one of the following MSS types listed to suit horizontal-piping systems, in accordance with MSS SP-69 and manufacturer's published product information. Select size of hangers and supports to exactly fit pipe size for bare piping, and to exactly fit around piping insulation with saddle or shield for insulated piping. Provide copper-plated hangers and supports for copper-piping systems.
 - i. Adjustable Steel Clevis Hangers: (MSS Type 1.) B-Line B 3100
 - ii. Adjustable Swivel Pipe Rings: (MSS Type 5) B-Line B3690
 4. Vertical-Piping Clamps:
 - a. General: Provide factory fabricated vertical-piping clamps complying with the following types listed, to suit vertical piping systems, in accordance with MSS SP-69 and manufacturer's published product information. Select size of vertical piping clamps to exactly fit pipe size of bare pipe. Provide copper-plated clamps for copper-piping systems.
 - b. Two-Bolt Riser Clamps: (MSS Type 8) B-Line B3373
 5. Hanger-Rod Attachments:
 - a. General: Provide factory fabricated hanger-rod attachments B-Line, Tolco or approved equal, selected by Installer to suit horizontal-piping hangers and building attachments, in accordance with MSS SP-58 and manufacturer's published product information. Select size of hanger-rod attachment to suit hanger rods. Provide copper-plated hanger-rod attachments for copper-piping systems.
 - b. Side beam eye socket, Tolco Fig. #57 for rod sizes 3/8" dia. and Tolco Fig. #25-30-251

for rod sizes 1/2" dia.

6. Building Attachments:

- a. General: Provide factory fabricated building attachments, selected by Installer to suit building structural framing conditions, in accordance with MSS SP-69 and manufacturer's published product information. Select size of building attachments to suit hanger rods. Provide copper-plated building attachments for copper-piping systems.

7. Hanger Rods and Spacing shall conform to the following table:

<u>Pipe Sizes</u>	<u>Spacing</u>	<u>Rods</u>
2 Inch and Smaller	6 Feet	3/8 Inch
2-1/2 Inch to 3 Inch	8 Feet	1/2 Inch
4 Inch and larger	8 Feet	5/8 Inch

- 8. Hangers and Supports shall be adequate to maintain alignment and prevent sagging and shall be placed within 18 inches of joint. Support shall be provided at each horizontal branch connection.

- 9. Provide lateral bracing as manufactured by B-Line or approved equal for all piping to prevent swaying or movement in accordance with SMACNA "Guidelines for Seismic Restraints of Piping Systems". Piping smaller than indicated in the guidelines shall be provided with bracing as specified for the smallest size indicated. The entire water distribution system shall be properly braced and will not move due to the action of quick closing of valves.

- 10. Miscellaneous Supports, Wall Brackets, Etc.: Provide where required in accordance with the best standard practices of the trade. Submit shop drawings for all fabricated supports.

- 11. Isolators. All piping which is not isolated from contact with the building by its insulation shall be installed with a manufactured type isolator. Isolators shall be B-Line vibra clamp and cushion, Super Strut, Stoneman "Trisolator", or approved equal. Piping shall be installed and supported in a manner to provide for expansion without strains. Guides shall be properly installed to ensure this requirement.

12. Shields:

- a. General: Provide shields at piping hangers and supports, factory-fabricated, for all insulated piping as manufactured by Pipeshields Incorporated or approved equal. Size shields for exact fit to mate with pipe insulation.
- b. Protection Shields: MSS Type 40; provide high density insert of same thickness of insulation or equal 100-psi average compressive strength, waterproofed calcium silicate, encased with a sheet metal shield. Insert and shield shall cover entire circumference of the pipe and shall be of length indicated by manufacturer for pipe size and thickness of insulation.

H. Insulation:

- 1. Condensate Pipe Insulation: All condensate piping within the building shall be insulated with "Imcoa" "Imcolock" 3/4" nominal wall thickness closed-cell insulation. Insulation shall have a flame spread of not more than 25 and a smoke density not exceeding 50 per 2016 CMC. All joints shall be mitered and secured with black duct tape.
- 2. All insulation shall be continuous through supports and hangers.

I. Equipment and Fixtures:

- 1. Fixtures:
 - a. See schedule on drawings.
- 2. Acceptable Manufacturers.
 - a. The following manufacturers (or equal) shall be accepted for submittal review provided

that all features and options are equivalent to the corresponding items as specified on plans and in specifications:

- i. Hose Bibs.
 1. Acorn.
 2. Woodford.
3. Furnish complete with necessary trim, including stops. All trim and fittings shall be chrome-plated brass including handles, supply tailpieces, traps and escutcheons.
4. Connections to fixtures shall be in accordance with code requirements except as exceeded herein or on the drawings and in no case less than the supply stop size.
5. All plumbing fixture faucets submitted for review shall have identification label or certification showing compliance with California TITLE 24, PART 5, ARTICLE I, "Energy Conservation Standards". ARTICLE I, T20-1406; ARTICLE 2, T20-1525 and ARTICLE 4, 1604 and 1606.
6. Minimum waste sizes shall be four-inch (4") for water closets and two inch (2") for lavatories.

3. PART 3 - EXECUTION

3.1 INSTALLATION - GENERAL

- A. Locations and Accessibility: Install equipment for ease of maintenance and repair. If changes in the indicated locations or arrangements are made by the Contractor, they shall be made without additional charges.
- B. Openings: Furnish information to the other trades on size and location of openings which are required in walls, slabs, roof, for piping and equipment at the proper times.
- C. Closing-In of Uninspected Work: Do not allow or cause any of the work to be covered up or enclosed until it has been inspected, tested, and approved by the Architect. Any work enclosed or covered prior to such inspection and test shall be uncovered and, after it has been inspected, tested, and approved, make all repairs with such materials as may be necessary to restore all work, including that of other trades, to its original and proper condition.
- D. Piping Installation:
 1. All piping shall be concealed in finished portion of the building except where otherwise indicated or directed at the time the work is done. All piping shall be installed to clear all framing members and beams, even if drawings do not indicate same. Contractor shall constantly check the work of other trades so as to prevent any interference with the installation of this work.
 2. All piping into stem walls and footings shall be double half lap wrapped with 1/8" thick "Armaflex" insulation. The Contractor shall also provide blocked out areas in stem wall and footing as required for the installation of the piping. All piping shall avoid the lower 9" of the footing and the Contractor shall coordinate and provide dropped footings as required for the installation of the underground piping.
 3. Unions shall be installed on one side of all screwed shut-off valves, at both sides of screwed automatic valves and on all by-passes, at all equipment connections and elsewhere as indicated or required for ease of installation and dismantling.
 4. Connections between copper tubing and equipment shall be with Mueller Brass Company, or approved equal, brass stream line copper to P.P.S. ground joint unions.
- E. Sleeves: Shall be plastic or galvanized steel where pipes pass through concrete walls or floor slabs.
 1. Isolate pipes through ground floor slabs with Kraft paper, plastic tape or similar materials unless conduit is specified or indicated.
 2. Sleeves for pipes through exterior walls shall be non-metallic with minimum 2" weep ring as manufactured by Link Seal. Pipe shall be sealed with Link Seal modular seal with EPDM

seal elements.

3. Sleeves in or through fire rated walls shall be per U.L. Fire Resistance System No. WL1146 for drywall construction, and U.L. Fire Resistance System No. CAJ1044 for concrete construction. See architectural plans for all locations of rated walls.
- F. Contraction and Expansion: Install all work in such a manner that its contraction and expansion will not do any damage to the pipes, the connected equipment, or the building. Install offsets, swing joints, expansion joints, seismic joints, anchors, etc., as required to prevent excessive strains in the pipe work. All supports shall be installed to permit the materials to contract and expand freely without putting any strain or stress on any part of the system. Provide anchors as necessary.
- G. Pipe Joints and Connections:
1. Copper Tubing and Brass Pipe with Threadless Fittings:
 - a. Solder joints for copper shall be made with 95/5 lead free solder in accordance with manufacturer's recommendations for the service intended.
 - b. Use threaded adapters on copper tubing where threaded connections are required.
 2. Welded Joints: All welding to be performed by welders certified as passing ASME Boiler and Pressure Code (Section IX) and shall comply with ANSI Std. B31.1.0 and the American Welding Society, Welding Handbook.
- H. Flexible piping of any kind will not be permitted except when indicated on drawings. Provide Hose Master Inc., flexible pipe appliance connector model UNP, female union, male nipple and plastic cover, AGA approved for kitchen equipment only.
- I. Each pipe penetration of the roof shall be separated from other piping and any roof equipment by a minimum of 18" to insure a proper pipe flashing installation.
- J. Floor, Wall and Ceiling Plates: Where pipes pierce finished surfaces, C.P. brass split flanges with setscrew lock shall be provided.
- K. Roof Flashings: Extend pipe a minimum of seven inches (7") above finished roof line, except where a vandal proof hood is required in which case pipe shall extend to a height required to receive the hood and also where specifically required to exceed this dimension by the local authority due to snow conditions.
- L. Installation of Plumbing Fixtures:
1. Install each fixture at the exact height and location shown on the Architectural Drawings.
 2. Set fixtures, supplies, trap and trap outlet square with the wall, in line with fixture outlets without any offsets, angles, or bends.
 3. Grout joint between the fixtures and the walls or floors with polysulfide or silicone sealant to be smooth, even and watertight.
- M. Completion of Installation:
1. Cleaning and Flushing: Clean all equipment and materials thoroughly. Leave surface to be painted smooth and clean, ready for painting.
 2. Flush each unit of water supply and distribution system thoroughly with clean water at the highest velocities attainable.
 3. Clean all piping, valves, traps, water heaters, fixtures and other devices thoroughly and flush or blow out until free of scale, oil silt, sand, sediment, pipe dope and foreign matter of any kind.
- 3.2 TESTING
- A. No piping work shall be concealed or covered until piping has been tested, inspected and approved by the Inspector. All piping for plumbing systems shall be completely installed and

tested as required by the Uniform Plumbing Code. Test pressures and times indicated are a minimum only. All tests shall be as required by the governing authority as well.

Schedule of Test Pressures:

<u>System Tested</u>	<u>Gauge</u>	<u>Test</u>	<u>Duration</u>
Water	100 PSI	Water	4 Hours
Gas	60 PSI	Air	4 Hours

Waste, Vent and Storm Drain: Per California Plumbing Code (Minimum 10 Feet of Head)

3.3 OPERATION INSTRUCTION

- A. Prior to occupancy or prior to the date of final inspection, whichever may occur first, the Contractor shall prepare two (2) sets of typewritten instructions for the operation of all equipment, valves, etc., specified and furnished as a part of the work under this section, and shall assign a competent person, thoroughly familiar with the job, to demonstrate and instruct a representative of the Owner in the operation of the equipment. The time of said demonstration and instructions shall be arranged with the Owner's representative approximately one (1) week in advance. Verbal instructions shall include shut-off location of gas and water. The Contractor shall assemble all operation and maintenance data supplied by the manufacturers of the various pieces of equipment, all keys and special wrenches required to operate and service the equipment (including keys for yard boxes, gas stops and fixture stops), and all equipment warranties and deliver same to the representative of the Owner on date of said instructions.

3.4 PIPE AND EQUIPMENT IDENTIFICATION

- A. Each operating and service line shut-off valve shall be identified by a 19 ga. brass tag with stamped, engraved type of service identified and area served, complete with hole and brass chain mounted on valve stem or handle. Tag shall be a minimum of one and one-half inch (1-1/2") in diameter.
- B. All piping systems shall be readily identifiable by appropriate labeling with the name of the piping contained. Such labeling shall be by means of metal tags, stenciling, stamping, or with adhesive markers, in a manner that is not readily removable. Labeling shall appear on the piping at intervals of not more than 20 ft and at least once in each room and each story traversed by the piping system.
- C. All equipment shall be provided with name plate indicating all pertinent information on it.

END OF SECTION

SECTION 23 00 00

HEATING, VENTILATION AND AIR CONDITIONING

1. PART 1 – GENERAL

1.1 DESCRIPTION

- A. Work under this section includes all labor, equipment, material, services, transportation, etc. required for and reasonably incidental to the complete and satisfactory installation of all of the HVAC Systems as indicated on the Drawings or specified herein.

1.2 Work included in this section:

- A. Outdoor Roof Top Packaged Units.
- B. Louvers.
- C. Ductwork and Accessories.
- D. Grilles, Registers and Diffusers.
- E. Duct Insulation.
- F. Vibration Isolation.
- G. Test and Balance.
- H. Submittals and Shop Drawings.
- I. Record Drawings.
- J. Operation and Maintenance Manuals.
- K. Guarantee.

1.3 RELATED WORK SPECIFIED ELSEWHERE

- A. Electrical supply to units. See Electrical Drawings.

1.4 GENERAL REQUIREMENTS

- A. This section of the specification shall be considered as a part of the entire specification and all applicable portions of General Conditions, Special Conditions, and Division 1 shall apply.
- B. Erection: The Contractor shall furnish the services of an experienced superintendent, who shall be constantly in charge of the erection of the work, together with all necessary journeymen, helpers, and laborers required to properly unload, erect, connect, adjust, start of operate and test the work involved.

1.5 REFERENCES

- A. AABC - National Standards for Field Measurement and Instrumentation, Total System Balance.
- B. AMCA 210 - Laboratory Methods of Testing Fans for Rating Purposes.
- C. AMCA 300 - Test code for sound rating air-moving devices.
- D. ANSI/NFPA 90A - Installation of Air Conditioning and Ventilation System.
- E. ARI 270 - Sound rating of Outdoor Unitary Equipment.
- F. ASHRAE 52-76 - Method of Testing Air Cleaning Devices Used in General Ventilation for Removing Particulate Matter.
- G. ASTM A90 - Weight of Coating on Zinc - Coated (Galvanized) Iron or Steel Articles.

- H. ASTM A120 - Black and Galvanized Steel Pipe.
- I. ASTM B88 - Seamless Copper Water Tube.
- J. ASTM C518 - Steady State Heat Flux Measurements and Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus.
- K. ASTM C553 - Mineral Fiber Blanket and Felt Insulation.
- L. ASTM C612 - Mineral Fiber Block and Board Thermal Insulation.
- M. ASTM E84 - Surface Burning Characteristics of Building Materials.
- N. ASTM E96 - Water vapor Transmission of Materials.
- O. NFPA 90B - Installation of Warm Air Heating and Air Conditioning Systems.
- P. NFPA 255 - Surface Burning Characteristics of Building Materials.
- Q. SMACNA - Low Pressure Duct Construction Standards.
- R. UL 181 - Factory Made Air Ducts and Connectors.
- S. UL 723 - Surface Burning Characteristics of Building Materials.
- T. California Mechanical Code - 2016 Edition.
- U. California Green Code – 2016 Edition.

1.6 SUBMITTALS AND SHOP DRAWINGS

- A. Contractor agrees that shop drawings submittals processed by the District do not become Contract Documents and are not Change Orders; that the purpose of the shop drawing review is to establish a reporting procedure and is intended for the Contractor's convenience in organizing his work and to permit the District to monitor the Contractor's progress and understanding of the design. The process of review of the Contractor's submittals is not of testing the District's perception. If deviations, discrepancies or conflicts between shop drawings submittals and the Contract Documents are discovered either prior to or after the shop drawing submittals are processed by the District, the Contractor agrees that the Contract Documents shall control and shall be followed.
- B. Prepare and furnish fully coordinated shop drawings showing ductwork and piping on separate drawings. The drawings shall be minimum 1/4" = 1'-0" scale and shall show dimensioning of piping and ductwork from gridlines, bottom of elevation marks for ductwork and piping and fittings, valves, dampers, devices, etc. with labels. In addition, coordinate with related work and reference on the same drawings major plumbing piping, structural steel, fire protection piping, conduit runs and cable trays. Review and sign these drawings to verify coordination of related equipment. Conflicts, which occur shall be brought to the attention of the District prior to issuance of the drawings.
- C. Materials and Equipment: As soon as possible and within 7 calendar days after award of the contract, and before their purchase, the Contractor shall submit to the District seven bound booklets for approval containing a complete list of materials, specialties and equipment he is to furnish for the installation. Literature shall be standard manufacturer's catalog cuts and items to be installed shall be clearly indicated. All submittals shall be made at one time.
- D. Each item shall be identified by manufacturer, brand and trade name, number, size, rating and whatever other data is necessary to properly identify and check the materials and equipment. The words: "as specified" will not be considered sufficient identification.
- E. Accessories, controls, finish, etc., not submitted or identified with the submitted equipment shall be furnished and installed as specified.
- F. Shop drawings shall be approved only to extent of information indicated. Approval of an item of equipment shall not be construed to mean approval for components for that item for which Contractor has provided no information.

- G. Approval of shop drawings shall not relieve Contractor of responsibility for providing all controls, wiring, components, etc. which are shown or specified, or all additional controls, wiring, components, etc. required to provide complete and correctly operating mechanical systems.
- H. Submit product data for the following manufactured products, assemblies, personnel and testing agencies required for this project.
 - 1. Packaged Heat Pump Air conditioning units.
 - 2. Diffusers, Registers and Grilles.
 - 3. Louvers.
 - 4. Controls.
 - 5. Ductwork and Accessories.
 - 6. Insulation Materials.
 - 7. Vibration Isolation.
 - 8. Detailed procedures, agenda, sample report forms, and copy of AABC National Project Performance Guarantee.

1.7 SUBSTITUTIONS

- A. Should the Contractor desire to substitute any material, equipment or other items for those specified, he shall submit a complete list, including detailed equipment layouts and performance characteristics within 7 calendar days after the scheduled Start of Construction. Said data shall be submitted in 7 copies, assembled in individual brochures.
- B. The entire cost of all changes of any type due to substitution for materials specified shall be born by the Contractor at no extra cost to the District.
- C. Unsolicited and voluntary deducts, on the part of the Contractor for substituting unapproved systems and/or equipment, shall not be considered for the purpose of awarding the Contract.
- D. The contractor shall submit the amount of cost credit to the Contract in the event the proposed substitution is accepted.
- E. In all cases where substitutions are proposed after bids are received, the Contractor shall bear the cost of evaluation on the basis of 2-1/2 times technical salaries of engineering personnel involved.

1.8 AVAILABILITY OF SPECIFIED EQUIPMENT

- A. Verify prior to bidding that all specified equipment is available and can be obtained in time for installation during orderly and timely progress of the work.
- B. In the event that specified items will not be so available, notify the District prior to receipt of bids.
- C. Costs of delays because of non-availability of specified items, when such delays could have been avoided by proper investigation on the part of the Contractor, will be back-charged as necessary and shall not be born by the District.

1.9 RECORD DRAWINGS

- A. The contractor shall arrange and pay for one set of white prints of the HVAC drawings, which he shall alter in red to show all changes made to the original layout. These drawings shall be kept current.
- B. The contractor shall deliver these completed to the District when the job is finished and accepted prior to final payment.

1.10 OPERATION AND MAINTENANCE DATA

- A. Submit two sets prior to final inspection, bound in 8-1/2 x 11 inch text pages, binders with durable plastic covers. Prepare binder covers with printed title "OPERATION AND MAINTENANCE INSTRUCTIONS", and title of project. Internally subdivide the binder contents with permanent page dividers, logically organized as described below; with tab titling clearly printed under reinforced laminated plastic tabs.
- B. Contents: Prepare a Table of Contents with each Product or system description identified.
 - 1. Part 1: Directory listing names, addresses, and telephone numbers of District, Contractor, Subcontractors, and major equipment suppliers.
 - 2. Part 2: Operation and maintenance instructions, arranged by system. Identify the following:
 - a. Significant design criteria.
 - b. List of equipment.
 - c. Parts list for each component.
 - d. Operating instructions.
 - e. Maintenance instructions for equipment and systems.
 - f. Maintenance instructions for special finishes, including recommended cleaning methods and materials and special precautions identifying detrimental agents.
- C. Submit one copy of completed volumes in final form 15 days prior to final inspection. This copy will be returned after final inspection, with District comments. Revise content of documents as required prior to final submittal.
- D. Submit final volumes (revised) within ten days after final inspection.

1.11 GUARANTEES

- A. The Contractor, in accepting this contract, binds himself to replace or repair at his own expense any defect in workmanship or material which may appear within a period of one year from the date of the final acceptance of the building, and to pay for all resulting damage which shall appear within the said period; provided always that the Contractor shall not be liable for anything attributable to acts of the agents of the District, or for ordinary wear. Also, given date of work performed by the Contractor be accepted as complete, he shall agree to correct any deficiencies or omissions in respect to the plans or specifications which may appear in the afore-mentioned twenty-four month period.
- B. The Contractor guarantees that all piping as provided in this specification will be free from all obstructions, and that all piping will be tight and drip free.
- C. All refrigerant compressors shall carry a five-year manufacturer's warranty.

1.12 LOCAL CONDITIONS

- A. The Contractor and trade submitting tenders on this work shall visit and will be deemed to have visited the site to ensure that they are familiar with all conditions relating to the work. Failure to visit the site will in no way relieve the successful Contractor of the necessity of furnishing any material or performing any work that may be required to complete the work in accordance with the drawings and specifications without additional cost to the District.

1.13 RULES, REGULATIONS AND CODES

- A. All work and materials shall be in full accordance with the latest California Mechanical Code, California Plumbing Code, California Building Code and local rules and regulations, State Fire Marshal regulations, the safety orders of the Division of Industrial Safety; the California Electric Code; the standards of the National Fire Protection Association; American Gas Association; Occupation and Safety Act; American National Standards Institute; American Society of Mechanical Engineers; American Society for Testing and Materials; Installation Standards published by the International Association of Plumbing And Mechanical officials

(IAPMO) and other applicable laws, codes, or regulations. Nothing in these specifications shall be construed to permit work not conforming to these codes.

- B. Electrical Work: Motors, electrical apparatus and wiring specified in this section shall conform to the National Electrical Manufacturer's Standards and the California Electric Code and bear the Underwriter's label of approval.
- C. The Contractor shall furnish, without extra charge, any additional material and labor when and where required to comply with these rules and regulations, though the work be not mentioned in these Specifications or shown on the Drawings. When these Specifications or Drawings call for or describe materials or construction of a better quality or larger sizes than required by the above mentioned rules and regulations, the provisions of these specifications and accompanying drawings shall take precedence.

1.14 FEES AND PERMITS

- A. The Contractor must obtain and pay all fees for permits, licenses, inspections, etc., which are required by any legally constituted authority. Coordinate exact requirements with the District prior to bid.

1.15 COORDINATION

- A. Following the general arrangement indicated on the Drawings as closely as possible, the Contractor shall coordinate with the architectural, structural, plumbing, electrical and all other trades prior to installation of the materials and equipment to verify adequate space available for installation of the work shown. The District shall be immediately notified if an area of conflict occurs between trades.
- B. The Contractor shall bear all costs incurred for work that must be relocated due to conflicts between trades.
- C. The Mechanical Contractor shall coordinate all requirements for all points of connection with the General Contractor and other trades prior to bid.

1.16 DRAWINGS

- A. The work shall be installed as indicated on Drawings, however, changes to accommodate installation of this work with other work, or in order to meet Architectural or structural conditions, shall be made without additional cost to the District.
- B. For the purpose of clarity and legibility, the Drawings are essentially diagrammatic to the extent that many offsets, bonds, unions, special fittings and exact locations are not indicated. The Contractor shall make use of all data in all of the Contract Documents, and shall verify this information at the site.

1.17 INSPECTION

- A. The Contractor shall not allow or cause any of his work to be covered up or closed in until it has been inspected, tested, approved by all authorities have jurisdiction, and until Project Record drawings have been properly annotated.
- B. Should any of his work be covered up or closed in before such inspection, he shall, at his own expense, uncover the work to the satisfaction of the inspection party. All related repair work cost shall be borne by the Contractor.

1.18 DELIVERY, STORAGE AND PROTECTION OF PROPERTY

- A. Place orders for all equipment in time to prevent any delay in construction schedule or completion of project. If any materials or equipment are not ordered in time, additional charges made by equipment manufacturers to complete their equipment in time to meet construction schedule, together with any special handling charges, shall be borne by the contractor.

- B. Materials shall be delivered in ample quantities from time to time as may be necessary for the uninterrupted progress of the work. They shall be stored as to cause the least obstruction to the premises and distributed so as to prevent overloading to any portion of the structure.
- C. The Contractor shall provide temporary storage and shop areas that are required at the site for the safe and proper storage of materials, tools, and other items used in the performance of this work. These areas shall be constructed only in approved locations and shall not interfere with the work of any other Contractor.
- D. All work, equipment and materials shall be protected at all times. The Contractor shall make good all damage caused either directly or indirectly by his own workmen. The Contractor shall also protect his own work from damage. He shall close all pipe and duct openings with caps or plugs during installation. He shall protect all of his equipment and materials against dirt, water, chemical, and mechanical injury. Upon completion, all work shall be thoroughly cleaned and delivered in a new condition.

1.19 DAMAGE BY LEAKS, ETC.

- A. The Contractor shall be responsible for all damage to any part of the premises or work of other Contractors, caused by leaks or breaks in the piping or equipment furnished and/or installed under this section, during the construction and guarantee period.

1.20 ACCESS TO EQUIPMENT FOR MAINTENANCE

- A. Install all equipment, piping, etc. to permit access for normal maintenance. Maintain easy access to filters, motors, etc. Install all such equipment and accessories to facilitate maintenance. Perform any relocation of pipes, etc. required to permit access at request of District at no additional cost to District.
- B. Furnish and install access doors or panels in walls, floors, and ceilings to permit access to equipment, dampers, and all other items requiring service. Coordinate location of access doors with other trades as required.
- C. Size access panels to allow inspection and removal of all items served.
- D. Use Milcor style as required for material in which door is installed. Where door is installed in fire rated construction, provide door bearing UL label required for condition.

2. PART 2 – PRODUCTS

2.1 GENERAL

- A. All materials and equipment shall be new and of the best of their respective grades, free from all defects and of the make, brand or quality herein specified or as accepted by the District.
- B. All materials and equipment shall be identified by manufacturer's name or nameplate data. Unidentified material or equipment shall be removed from the site.
- C. Equipment specified by manufacturer's number shall include all accessories, controls, etc., listed in the catalog as standard with the equipment. Optional or additional accessories shall be furnished as specified.
- D. Where no specific make of material or equipment is mentioned, any first class product of a reputable manufacturer may be used, provided it conforms to the requirements of the system and meets with the approval of the District.
- E. Equipment and materials damaged during transportation, installation and operation shall be considered as "totally damaged" and shall be replaced with new. Any variance from this clause shall be made only with written approval of the District.

2.2 MANUFACTURER

- A. Packaged A/C Units:
 - 1. Trane

- 2. Carrier
- 3. Approved Equal.
- B. Diffusers, registers, and grilles:
 - 1. Krueger
 - 2. Titus
- C. Thermostats:
 - 1. Trane
 - 2. Carrier
- D. Vibration Isolation:
 - 1. Mason
 - 2. M.W. Sausse
 - 3. Approved equal

2.3 ROOF-TOP PACKAGED AIR CONDITIONING UNITS

- A. Provide roof-mounted units having gas burner and electric refrigeration. Unit shall be self-contained, packaged, factory assembled and pre-wired, consisting of cabinet and frame, supply fan, air filters, cooling coil and compressor, condenser coil and condenser fan.
- B. Fabrication.
 - 1. Cabinet: Galvanized steel with baked enamel finish, access doors or removable access panels with quick fasteners. Structural members shall be minimum 18 gauge, with access doors or removable panels of minimum 20 gauge.
 - 2. Insulation: ½ inch thick minimum neoprene coated glass fiber on surfaces where conditioned air is handled. Protect edges from erosion.
 - 3. Heat Exchangers: Stainless steel, of welded construction.
 - 4. Air Filters: glass fiber disposable media in metal frames, sized per manufacturer with minimum arrestance according to ASHRAE 52.1, and a minimum efficiency reporting value (MERV) according to ASHRAE 52.2
 - 5. Roof Mounting Frame: Galvanized steel, channel frame with gaskets, nailer strips. Provide OSHPD pre-approved 2-inch isolation curb for all units greater than 6 tons cooling capacity or where noted on plans. Curb manufacturer shall be by M.W. Sausse', Canfab or Micro Metal.
- C. Evaporator Coil.
 - 1. Aluminum-plate fin and seamless internally grooved copper tube in steel casing with equalizing-type vertical distributor
 - 2. Polymer strip shall prevent all copper coil from contacting steel coil frame or condensate pan.
 - 3. Coil split: interlaced
 - 4. Condensate drain pan: stainless steel formed with pitch and drain connections complying with ASHRAE 62.1-2004.
 - 5. Provide capillary tubes or thermostatic expansion valves for units of 6 tons (21 kw) capacity and less, and thermostatic expansion valves and alternate row circuiting for units 7.5 tons (26 kw) cooling capacity and larger.
- D. Compressor.

1. Provide hermetic compressor, 3600 rev/min maximum, resiliently-mounted with positive lubrication, crankcase heater, high and low pressure safety controls, motor overload protection, suction and discharge service valves and gage ports, and filter drier.
 2. Five minute timed off circuit shall delay compressor start.
 3. Provide extended 5 year warranty on compressors.
- E. Condenser.
1. Aluminum-plate fin and seamless internally grooved copper tube in steel casing with equalizing-type vertical distributor.
 2. Polymer strip shall prevent all copper coil from contacting steel coil frame or condensate pan
 3. Provide direct drive propeller fans, resiliently mounted with fan guard, motor overload protection, wired to operate with compressor.
 4. Provide refrigerant pressure switches to cycle condenser fans.
- F. Supply/Return Casing.
1. Dampers: Provide outside air and relief dampers with damper operator and control package to automatically modulate outside air quantity. Outside air damper shall fall to closed position. Relief dampers may be gravity balanced.
 2. Gaskets: Provide tight fitting dampers with edge gaskets.
 3. Mixed Air Controls: Maintain selected supply air temperature and return dampers to minimum position on call for heating and when ambient air dry-bulb temperature exceeds return air dry-bulb temperature.

2.4 DUCTWORK AND ACCESSORIES

- A. General: Non-combustible or conforming to requirements for Class 1 air duct materials, or UL 181.
- B. Steel Ducts: ASTM A525 or ASTM A527 galvanized steel sheet, lock-forming quality, having zinc coating of 1.25 oz per sq ft for each side in conformance with ASTM A90. Round duct shall be spiral seam construction.
- C. Flexible Ducts: Interlocking spiral of galvanized steel or aluminum construction; rated to (2 inches WG positive and 1.5 inches WG negative for low pressure ducts) (and 15 inches WG positive or negative for medium high pressure ducts.)
- D. Insulated Flexible Ducts: Flexible duct shall be R-8 wrapped with flexible glass fiber insulation, enclosed by Pressure Ductwork: seamless aluminum pigmented plastic vapor barrier jacket; maximum 0.23 K value at 75 degrees F w/metal connectors
- E. All flex ducts shall not exceed 7'-0" in length to respective diffusers, registers, and etc.
- F. Spiral Ducts: Interlocking spiral of galvanized steel or aluminum construction; rated to (2 inches WG positive and 1.5 inches WG negative for low pressure ducts) (and 15 inches WG positive or negative for medium high pressure ducts.) Spiral Ducts shall be R-8 wrapped with glass fiber insulation.
- G. Fasteners: Rivets, bolts, or sheet metal screws.
- H. Sealant: Non-hardening, water resistant, fire resistive, compatible with mating materials; liquid used alone or with tape, or heavy mastic.
- I. Hanger Rod: Steel, galvanized; threaded both ends, threaded one end, or continuously threaded.
- J. Low Pressure Ducts:

1. Fabricate and support in accordance with 2016 CMC, SMACNA Low Pressure Duct Construction Standards and ASHRAE handbooks, except as indicated. Gages for galvanized steel ducts for low pressure systems where velocities do not exceed 2000 FPM shall be as follows:

RECTANGULAR DUCT		ROUND DUCT	
<u>Dimension of Largest Side (L) in Inches</u>	<u>Gage</u>	<u>Diameter (D) In Inches</u>	<u>Ga.</u>
$L \leq 12$	26	$D < 9$	26
$12 \leq L < 30$	24	$9 \leq D < 14$	24
$30 < L \leq 54$	22	$14 \leq D < 23$	22
$54 < L \leq 84$	20	$23 \leq D < 37$	20
$84 < L$	18	$37 \leq D < 51$	18
		$51 \leq D < 61$	16
		$61 \leq D < 84$	14

All joint and seam constructions as indicated in the CMC are acceptable.

2. Size round ducts installed in place of rectangular ducts in accordance with ASHRAE table of equivalent rectangular and round ducts. No variation of duct configuration or sizes permitted except by written permission.
 3. Construct T's, bends, and elbows with radius of not less than 1-1/2 times width of duct on centerline. Where not possible and where rectangular elbows are used, provide turning vanes.
 4. Increase duct sizes gradually, not exceeding 15 degrees divergence wherever possible. Divergence upstream of equipment shall not exceed 30 degrees; convergence downstream shall not exceed 45 degrees.
 5. Use double nuts and lock washers on threaded rod supports.
- K. Volume Control Dampers:
1. Fabricate in accordance with SMACNA Low Pressure Duct Construction Standards, and as indicated.
 2. Opposed blade dampers shall have factory-fabricated blades, with factory assembled linkages, mounted in frames. Blades shall have interlocking edges and ends. Rectangular dampers 6" or more wide, shall be the multi-blade type. Blades on multi-blade type dampers must not be over 6" wide. Dampers shall be of the opposed blade type. Dampers shall have bar or channel frames and corner bracing. All blade and linkage bearings shall be self lubricating plastic. Damper assembly leakage not to exceed 1% with 4.0 W.C. static pressure.
 3. Provide locking, indicating quadrant regulators on single and multi-blade dampers.
 4. On insulated ducts mount quadrant regulators on stand-off mounting brackets, bases, or adapters.
- L. Duct Test Holes:
1. Cut or drill temporary test holes in ducts as required. Cap with neat patches, neoprene plugs, threaded plugs, or threaded or twist-on metal caps.
- M. Diffusers, Supply Registers, Return Registers, and Exhaust Grilles:
1. Fabricate of steel with steel or aluminum frame and baked enamel off-white finish.

2. Provide opposed blade damper and multi-louvered equalizing grid with damper adjustable from diffuser face as indicated on the drawings.
3. Ceiling Supply Diffusers (SD): Krueger Model 124O or approved equal, with 4-way throw, with balancing damper, or approved equal.
4. Exposed Round Supply Diffuser (SD): Krueger Model RA-2 concentric round or approved equal, with adjustable throw, with volume damper.
5. Wall Supply Register (SR) and Wall or Ceiling Exhaust or Return grille (EG) or (RG): Krueger Type 88OH double deflection type and S8OH fixed bar-type or approved equal. Constructed of steel with opposed blade damper.
6. Heavy Duty Wall Return or Exhaust Register (RG) or (EG): Krueger Type 480H Heavy Duty fixed blade or approved equal. Provide opposed blade damper as required.

2.5 CONTROLS

- A. See requirements in section 230900 for Energy Management System (EMS) controls.
- B. The Contractor shall be responsible for the proper coordination of all control work and electrical work in connection therewith. He shall also be responsible for the proper operation of the entire system.
- C. The Contractor shall furnish and install all line voltage control wiring, and in all conduit. Wire sizing and length of run shall be coordinated with the manufacturer and Electrical Engineer. All EMS controls, wiring, and conduit shall be by EMS contractor.
- D. Electrical Work: All electric relays, hand-off automatic switches and all electrical wiring and all conduit will be provided under the Electrical Section, except as otherwise specified. Furnish and install additional conduit, wiring, relays, hand-off automatic switches made necessary by the use of approved substituted equipment under this Section with no additional cost to the Owner.
- E. Refer to drawings for control diagrams and additional requirements.
- F. Calibration of Controls: The EMS Contractor shall carefully calibrate and adjust all controls as required to maintain comfort conditions and maximum energy conservation.
- G. EMS Thermostats shall be by the EMS contractor and shall part of an energy management system unless specified otherwise.
- H. Where stand-alone controls are indicated, Contractor shall be responsible for low voltage controls conduit, wiring, and thermostat.

2.6 INSULATION

- A. General:
 1. All insulation shall have composite (insulation, jacket or facing, and adhesive used to adhere the facing or jacket to the insulation) fire smoke hazard ratings as tested by procedure ASTM E84, NFPA 255 and UL 723 not exceeding:

Flame Spread:	25
Smoke Developed:	50
 2. All products or their shipping cartons shall bear a label indicating that flame and smoke ratings do not exceed above requirements. Any treatment of jackets or facings to impart flame and smoke safety shall meet the above requirements.
 3. The Contractor shall certify that all products used have met the above criteria.
 4. The insulation values shown are a minimum. If the requirements of Title 24 exceed these values, the amount of and/or type must be increased to meet the Title 24 requirements.
- B. Duct Insulation:

1. Fiberglass Duct Wrap:
 - a. Insulation: ASTM C553; flexible, noncombustible blanket.
 - i. 'K' value: ASTM C518, 0.48 at 75 degrees F.
 - ii. Maximum service temperature: 250 degrees F.
 - iii. Density: 0.75 lb/ ft3.
 - a. Vapor Barrier Jacket:
 - i. Kraft paper reinforced with glass fiber yarn and bonded to aluminized film vinyl.
 - ii. Moisture vapor transmission: ASTM E96; 0.5 perm.
 - iii. Secure with pressure sensitive tape.
 - a. Vapor Barrier Tape: Kraft paper reinforced with glass fiber yarn and bonded to aluminized film, with pressure sensitive rubber based adhesive.
 - b. Tile Wire: Annealed steel, 16 gage.
2. Glass Fiber Duct Liner, Flexible:
 - a. Insulation: ASTM C553; flexible, noncombustible blanket.
 - i. 'K' value: ASTM C518, 0.24 at 75 degrees F.
 - ii. Maximum service temperature: 250 degrees F.
 - iii. Density: 1.5 to 3.0 lb/ft3.
 - iv. Maximum Velocity on Coated Air Side: 4,000 ft/min.
 - b. Adhesive: Waterproof (fire-retardant) type.
 - c. Liner Fasteners: Galvanized steel, self-adhesive pad.
3. Glass Fiber Duct Liner, Rigid:
 - a. Insulation: ASTM C612; semi-rigid, noncombustible.
 - i. 'K' value: ASTM C518, 0.24 at 75 degrees F.
 - ii. Maximum service temperature: 250 degrees F.
 - iii. Density: 1.5 to 3.0 lb/cu ft.
 - iv. Maximum Velocity on Coated Air Side: 4,000.
 - b. Adhesive: Waterproof (fire-retardant) type.

3. PART 3 - EXECUTION

3.1 GENERAL

- A. Install all equipment in locations indicated on the Drawings. Contractor will be responsible to verify with the District, if suitability is doubted. Contractor shall notify the District before installation into any apparent improper locations of interference with other work such as electrical outlets, windows, cabinetwork or other features.

3.2 INSTALLATION

- A. Roof-top equipment: Install in accordance with manufacturer's instructions. Mount units on factory-built roof-mounting frame providing watertight enclosure to protect ductwork and utility services, or on platforms. Install roof mounting frame level.
- B. Ductwork and Accessories:

1. Provide openings in ductwork where required to accommodate thermometers and controllers. Provide pilot tube openings where required for testing of systems, complete with metal can with spring device or screw to ensure against air leakage. Where openings are provided in insulated ductwork, install insulation material inside a metal ring.
 2. Locate ducts with sufficient space around equipment to allow normal operating and maintenance activities.
 3. Install accessories in accordance with manufacturer's instructions and to meet the provisions of SMACNA "Seismic Restraint Manual: Guidelines For Mechanical Systems," Latest Edition.
 4. Provide balancing dampers at points on low-pressure supply, return, and exhaust systems where branches are taken from larger ducts as required for air balancing. Use splitter dampers only where indicated.
 5. Provide flexible connections immediately adjacent to equipment in ducts associated with fans and motorized equipment.
 6. Provide duct access doors for inspection and cleaning before and after filters, coils, fans, automatic dampers, at fire dampers, and elsewhere as indicated. Provide minimum 12 x 12 inch size for hand access, 30 x 30 inch size for shoulder access, and as indicated.
 7. Provide duct test holes where indicated and required for testing and balancing purposes.
 8. Check location of outlets and inlets and make necessary adjustments in position to conform to Architectural features, symmetry, and lighting arrangement.
 9. Install diffusers to ductwork with airtight connection.
 10. Provide balancing dampers on duct take-off to diffusers and registers, regardless of whether dampers are specified as part of the diffuser or register assembly.
 11. Paint ductwork visible behind air outlets and inlets matte black.
- C. Thermostats and over-ride switches: Install at 48" above finished floor unless otherwise stated. Coordinate with other trades.
- D. Insulation:
1. Duct Insulation:
 - a. Unless specifically indicated on the drawings the Contractor may line or wrap ductwork to meet insulation requirements.
 - b. Fiberglass ductwrap:
 - i. Secure insulation with vapor barrier with wires and seal jacket joints with vapor barrier adhesive or tape to match jacket.
 - ii. Secure insulation without vapor barrier with staples, tape, or wires.
 - iii. Install without sag on underside of ductwork. Use adhesive or mechanical fasteners where necessary to prevent sagging. Lift ductwork off trapeze hangers and insert spacers.
 - iv. Seal vapor barrier penetrations by mechanical fasteners with vapor barrier adhesive.
 - v. Stop and point insulation around access doors and damper operators to allow operation without disturbing wrapping.
 - c. Duct (and Plenum) liner Application:
 - i. Install as indicated (sound lining) on the drawings.

- ii. Adhere insulation with adhesive for 100 percent coverage. Secure insulation with mechanical liner fasteners. Refer to SMACNA Standards for spacing. Seal and smooth joints. Seal liner surface penetrations with adhesive.
 - iii. Duct dimensions indicated are net inside dimensions required for airflow. Increase duct size to allow for insulation thickness.
- E. Install Spring Curb Rail vibration isolation system per manufacturer's recommendations where required. Provide shear strap (1 per side) from A/C unit to SCR-EQ, and aircraft cable from A/C unit to equipment curb per manufacturer's recommendations. Submit shop drawings for location of points of attachment, and methods and materials:

3.3 AIR SYSTEM TEST AND BALANCE

- A. Perform all tests to the entire satisfaction of the District. Air balancing contractor shall notify district one week prior to scheduling air balance at the site.
- B. Regulating and Adjusting Air Systems:
 - 1. The Contractor shall have an experienced independent testing company certified member of the Associated Air Balance Council (A.A.B.C.) or National Environmental Balancing Bureau (N.E.B.B.) specializing in air conditioning system testing completely balance the air systems so that the volume of air indicated on the drawings is being delivered to the outlets. Contractor shall adjust and re-adjust this part of the work until the operation complies with the requirements of the drawings and specifications.
 - 2. Testing Procedure: Procedures shall conform to A.A.B.C. or N.E.B.B standards. Provide reports in sort cover, letter size, 3-ring binder manuals, complete with index page and indexing tabs, with cover identification at front and side. Include set of reduced drawings with air outlets and equipment identified to correspond with data sheets and indicating thermostat locations.
 - 3. The following test data shall be taken and three (3) copies submitted in tabulated form to the Architect for each system:
 - a. Test and adjust all supply, return & exhaust blower RPM to design requirements.
 - b. Test and record all motor full load amperes.
 - c. Test and record system static pressures, suction and discharge.
 - d. Test and adjust system for design re-circulated air, CFM.
 - e. Test and adjust system for design CFM outside air.
 - f. Adjust all supply, return and exhaust outlets to within 5% of design CFM.

3.4 SOUND AND VIBRATION ISOLATION

- A. All vibrating equipment shall be sound isolated from the structure.
- B. The Contractor shall submit all necessary data for each vibration isolator, including static deflection and weight loading, for equipment in operation.
- C. All vibrating equipment shall be provided with flexible pipe connections. Submit for approval prior to installation.

END OF SECTION

SECTION 26 00 00

ELECTRICAL

1. PART 1 - GENERAL REQUIREMENTS

1.01 SCOPE OF WORK

- A. The work covered this section consists of furnishing and installing all labor, materials, equipment, fixtures and performing all operations for complete and operable systems.
- B. Provide all new materials, unless noted otherwise, of the best quality, and in perfect condition, and materials of the same make and quality throughout the work and as hereinafter specified. Comply with the requirements of ASTM, NEMA, U.L., and NBFM for materials and equipment.
- C. Where materials, equipment, apparatus or other products are specified by manufacturer, brand name, type or catalog number, such designation is to establish standards of desired quality and style, and is the basis of the bid.
- D. The intent of these specifications is to establish a standard of quality of materials installed. Include materials as specified without exception in the Base Bid. Submit for approval any proposed substitution, complete descriptive, technical, and cost comparison data and test reports. Do not furnish or install any substitute items without written approval at the time of contract signing. Reimburse the Owner for any additional engineering charges and for any changes in the work of other trades resulting from substitutions. List proposed substitutions on the Bid Form, stating the reasons for substitution and the amount to be deducted from the bid if the substitution is allowed. When requested by the Architect, samples, electrically wired at 120V with plug, or system demonstrations of both specified and proposed items will be submitted for inspection in the Architects office and at a time convenient to all concerned parties.
- E. Where substitutions alter the design or space requirements indicated on the plans, include all items of cost for the revised design and construction, including all cost of acceptance or rejection of the proposed substitutions.
- F. Verifying Drawings and Job Conditions:
 - 1. Examine all drawings and specifications in a manner to be fully cognizant of all work required.
 - 2. Visit the site and verify existing conditions. Where existing conditions differ from drawings, make adjustments and allowances for all necessary equipment to complete all parts of the drawings and specifications.
- G. Shop Drawings:
 - 1. Submit drawings in six sets accompanied by letter of transmittal listing the number and dates of the drawings submitted within (7) days of award of contract.
 - 2. Mark the drawings submitted with the name of the project, numbered consecutively, and bearing approval as evidence that the drawings have been checked. Any drawings submitted without this approval will be returned for resubmission.
 - 3. If the shop drawings show variations from the requirements because of standard shop practice, or other reasons, make specific mention of such variations in the letter of transmittal. If the substitution is accepted, be responsible for proper adjustment, which may be caused by the substitution. Submit samples when requested. Submit all lighting fixtures in one package.
 - 4. Submit Shop drawings on, but not limited to, the following:
 - a. Switchgear, Panels, Transformers
 - b. Product list
 - c. Lighting fixtures
 - d. Signal & Fire Alarm Systems

- H. Drawings of Record:
Provide and keep up-to-date, a complete record set of blue line prints. Correct these prints daily, and show every change from the original drawings. Keep this set of prints on the job site, and use only as a record set. Do not construe this as authorization to make changes in the layout without definite instruction in each case. Obtain a set of Contract Drawings from Construction Manager and incorporate all changes as noted on the record set of prints thereon with black ink in a neat, legible, understandable and professional manner. Deliver this set to the Construction Manager upon completion and acceptance of work.
- I. Accuracy of Plans and Specifications:
Plans and/or specifications showing deviation from standard practice methods or from compliance with codes, and/or any omissions, does not relieve the responsibility of furnishing, making or installing all items required by code and/or intended for the function of the system.
- J. Permits, Fees and Insurance:
Obtain and pay for all insurance, permits, etc. necessary for this Contract.
- K. Codes and Regulations:
All work performed under this Section of the Specifications complies with the rules and code of regulations of the Division of Industrial Safety, State of California, as set forth in the latest edition of the Electrical Safety Orders, the California Electrical Code, NFPA, and all rules and regulations of local codes having jurisdiction, including the presently adopted edition Title 24 California.
- L. Testing:
The Contractor shall obtain an independent testing laboratory, provide all instrumentation and perform test on the electrical system and equipment as hereinafter described and further directed by Owner's Representative. The test shall be performed after the completion of all electrical systems included in the Contract Scope of Work. All tests shall be recorded and documented and submitted to the Owner's Representative for review.
1. All equipment and personnel required for set-up and testing shall be provided by the Contractor.
- M. Testing for Phase to Ground & Neutral Condition:
1. Open all main service disconnects.
 2. Isolate the system neutral from ground by removing the neutral disconnect link located in the service switchboard.
 3. Close all sub-main disconnects.
 4. Close all branch feeder circuit breakers.
 5. Turn all switches to the "ON" position, un-plug all portable equipment from outlet receptacles.
 6. Measure the resistance of each phase to ground and phase to neutral. A properly calibrated "Megger" type test instrument shall be used. The test voltage shall be a nominal 500 Volts.
 7. Record all readings after 1-minute duration and document into a complete report.
 8. Isolating Grounds: In the event that low resistance ground neutral connections are found in the system, they shall be isolated and located by testing each circuit individually as outlined above. Make proper corrections to restore the resistance values to an acceptable value.
- N. Ground Resistance Testing:
1. Method of obtaining ground resistance shall be in accordance with the latest edition of the James G. Biddle (Plymouth Meeting Pennsylvania) manual published on this subject.
 2. Perform "fall of potential" 3 point tests on the main grounding electrode of system per IEEE Standard No. 81, Section 8.2.1.5. When suitable locations for test rods are not available, a low resistance dead earth or reference ground shall be utilized.
 3. Perform the two-point test method per IEEE Standard No. 81, Section 8.2.1.1, to determine the ground resistance between the main grounding system and all major electrical equipment

frames, system neutral, and/or derived neutral points.

O. Testing and Calibrating:

The testing, calibrating, and setting of all ground and ground fault equipment, circuit breakers, circuit device protection relays, and meters adjustable settings shall be by an independent testing laboratory. Set as recommended by the respective Manufacturer and coordination study so as to be coordinated with other protection devices within the electrical design. Bound and tabulated copies of the test and settings shall be sent to the Owner's Representative.

P. Ampere and Voltage Measurements:

1. Measure and record ampere and line voltage measurements under full load on all panel feeders, switchboard, and switchboard feeders, motor control centers and motor circuits provided in the Contract. Record measurements at the equipment tested and submit to the Owner's Representative for review.
2. Ampere Voltage readings shall be:
 - a. Phase A-B, A-C, and A-B.
 - b. Phase A-Neutral, B-Neutral and C-Neutral.
3. The ampere and voltage readings shall not be less than 20 minutes duration for each test. Record and submit the measured minimum, maximum and 20 minute average for each ampere and voltage value and test location. Voltage and ampere measurements shall occur at the connected load end of each respective feeder, not at the source of supply end of each feeder.
4. Test equipment shall be accurate with plus or minus 1%.
5. Branch circuit devices 40 amperes or less and motor circuits 10 horsepower or smaller are excluded from ampere and voltage testing requirement.
6. If in the opinion of the Owner's Representative, the voltages and regulations are not met within acceptable limits, make arrangements with the serving utility for proper electrical service. Re-test feeder line voltages, and submit to Owner's Representative for review, after the utility company has completed corrective actions. Reset "voltage taps" on transformers provided or modified as part of the Contract Work, to adjust line voltages to within acceptable values, as directed by the Owner's Representative.

Q. The Contractor shall complete the following work before any electrical equipment is energized:

1. All equipment shall be permanently anchored.
2. All bus connections and conductor/wire connections shall be tightened per Manufacturer's instructions and witnessed by the Owner's Representative.
3. All ground connections shall be completed and identified. Perform and successfully complete all required megger and ground resistance tests.
4. Feeders shall be connected and identified.
5. The interiors of all electrical enclosures including bus bars and wiring terminals shall be cleaned of all loose material and debris, paint, plaster, cleaners and other abrasives over spray removed and equipment vacuumed clean. The Owner's Representative shall observe all interiors before covers are installed.
6. All wall, ceiling, and floor work and painting shall be completed within areas containing electrical equipment prior to installation of equipment. The equipment indoor rooms and spaces shall be weather-tight and weather protected from environmental incursions.
7. All doors to electrical equipment rooms shall be provided with locks in order to restrict access to energized equipment.
8. Electrical spaces and rooms shall not be used as storage rooms after power is energized.
9. Outdoor electrical equipment enclosures and housings shall be weather protected.
10. The electrical system time current coordination and ARC-Fault study shall be complete for

circuit breakers, ground relay sets, and circuit relay sets, fuses, set-up; tested and calibrated accordingly.

R. Commissioning:

1. The commissioning shall verify the electrical systems for the term of the Contract, by observation, and by calibration; and by testing. The commissioning shall ensure the electrical systems perform interactively and correctly, according to the Contract and operational requirements.
2. Commissioning shall provide startup, testing and documented confirmation of the Contract constructed systems, materials and work, functions in compliance within the criteria set forth in the Contract Documents to the satisfaction of the Owner's needs. The commissioning scope shall encompass each system indentified as requiring "commissioning" by the Contract Documents, including but not limited to:
 - a. Electrical circuits' protection, short circuit, overcurrent, and ground fault devices.
 - b. Electrical circuits monitoring and metering.
 - c. Light fixtures.
 - d. Lighting control devices, equipment and lighting control systems.
 - e. Standby and emergency electric power supply equipment and systems.
 - f. Fire Alarm, equipment, devices and fire alarm systems.
 - g. Additional systems described in the Contract Documents.
3. Commissioning process shall review all of the shop drawings submittals, including:
 - a. Controls, operation and maintenance requirements.
 - b. Facility performance testing compliance.
 - c. Project Contract requirements compliance.
 - d. Compliance with basis for design and operational descriptions provided in the Contract.
4. Commissioning shall be the process of ensuring all the systems described in the Contract Documents design; all systems are installed properly; all systems are functional, tested and capable of being operated and maintained to perform within the Contract requirements and design intent.
5. Functional setup, recalibration, correcting deficiencies, retesting and the associated costs, for system(s) that fail commissioning, shall be the responsibility of the Contractor. The Contactor shall include all commissioning costs in the Contract scope of work.
6. Complete all commissioning functions prior to the occupancy of the facility by the Owner, unless directed otherwise by the Owner's Representative.
7. Submit six (6) copies of commissioning documentation to Owner's Representative.
8. Commissioning, unless specifically indicated otherwise, shall be by Factory-Trained Technician(s) authorized and certified by the manufacturers of the respective equipment/systems. Where specifically indicated, commissioning shall be performed by Independent Test Lab.

S. Commissioning Procedures:

1. Prepare a commissioning matrix identifying components and systems included in the commissioning scope; the status; actions completed and actions to be completed.
2. Verify Contractor compliance with Contract Document requirements, Manufacturer's recommendations and approved shop drawings.
3. Perform startup, functional tests, reports, and document results.
4. Evaluate and document the setup parameters, software, operating conditions and performance of each system at the time of functional test completion. Document and record

each performance parameter and condition, in the commissioning report.

5. Schedule testing and prepare descriptions of testing.
6. Describe measures performed to correct deficiencies.
7. Verify that instructions to Owner's Representatives, operations and maintenance manuals comply with Contract Documents.
8. Prepare warranty matrix identifying the start dates, expiration dates, routine preventative maintenance dates and the Owner's responsibility for performing preventative maintenance and keeping logs for each maintenance function and warranty claims.
9. Confirm completion of all punch list items that have been acceptably accomplished and a list of what has not been acceptably completed.
10. Describe uncorrected deficiencies accepted by the Owner.

T. Commissioning Phasing:

The commissioning phases of work shall include the following:

1. SDQ-Shop Drawing Qualification shall verify complete and correct Shop Drawings have been submitted.
2. IQ- The installation Qualification of Contract work shall verify systems are correctly and properly installed.
3. QQ-Verify systems interfaces and software is correctly and properly operational.
4. ITM-Verify that Contract Inspection, Testing and procedures for Maintenance are complete.
5. PQ-Performance Qualification complete the functional performance testing to validate each building system.

U. Time/Current coordination, Short Circuit, Arc-Flash and Series Rated equipment:

Series Rated Equipment:

1. Circuit protective Devices identified as "Series Rated" or "Current Limiting" (i.e., CLCB-current limiting circuit breaker, CLF-current limiting fuse, etc) shall be series rated and tested (UL489 and CSAS) by the Manufacturer with all equipment and circuit protective devices installed downstream of the identified series rated or current limiting device.
2. Provide nameplates on all equipment located downstream, including the CLCB and CLF devices, to comply with CEC/NEC paragraphs 110-22 and 240-83 "CAUTION SERIES RATED SYSTEM-NEW DEVICE INSTALLATIONS AND REPLACEMENTS SHALL BE THE SAME MANUFACTURER AND MODELS".

V. Short Circuit, Coordination and ARC-Flash

1. Perform engineering analysis and submit engineered settings for each equipment location, fuse and circuit breaker device, showing the correct time and current settings to provide the selective coordination within the limits of the specified equipment. The engineering shall comply with the latest application standards of IEEE and ANSI. Provide electrical system short circuit worst case bolted-fault analysis, both 3-phase line to line and 1-phase line to ground 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 (6) 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. This 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 Practices for Industrial and Commercial Power System Analysis.
 - c. IEEE-1584, Guide to Performing ARC-FLASH Hazard Study.

d. CEC/NEC

4. Provide permanent warning labels on each equipment location. The labels shall describe ARC-FLASH, Short-Circuit and Time/Current Coordination, including safety precautions and protective clothing. Also described actions to be taken if any circuit changes or equipment modifications occur.
5. Study shall be submitted with the Shop Drawing submittals for the respective equipment.

W. INDEPENDENT TESTING LABORATORY

Testing Laboratories Definition

1. The Testing Laboratory shall meet Federal OSHA criteria for accreditation of Nationally Recognized Testing Laboratories (NRTL) Title 29 Part 1907 and CFR-1910.
2. Membership in the National Electrical Testing Association (NETA) shall also constitute acceptance of meeting said criteria, for testing of electrical systems.

X. Guarantees of Materials and Workmanship:

Furnish and install all materials under this Contract, new and free from all defects, and guaranteed for a period of two years from the date of acceptance of the work. Should any trouble develop during this period due to defective material or faulty workmanship, furnish all necessary labor and materials to correct the trouble without additional cost to the Contract. Correct any defective material or inferior workmanship noticed at the time of installation immediately, to the satisfaction of the Architect.

Y. Removal of Rubbish:

Remove rubbish, excess materials, tools or equipment related to this portion of the work, frequently during construction and upon completion of the work.

Z. Utility Services:

Comply with the requirements of the Utility Company when doing all electrical service work. Contact the Utility Company and receive complete information on their requirements. Pay all service charges.

AA. Drawings and Specifications:

1. The electrical drawings are considered as part of these specifications, and any work or materials shown on the drawings and not mentioned in the specifications, or vice versa, are executed as if specifically mentioned in both.
2. The data herein specified and shown on the drawings is as exact as could be prepared, but their extreme accuracy is not guaranteed. The drawings and specifications are for assistance and guidance. The installation is essentially as shown and specified. The exact location of the equipment, material, apparatus and devices as well as the distances and levels, are more or less governed by the physical conditions and arrangements of the building. Accept this Contract with this understanding.
3. Make minor changes, when ordered by the Architect, accommodating the installation of the work with other sections of the Contract without additional cost to the Contract.

BB. Safety Conditions:

It is the Contractor's responsibility to prevent any and all energized switches, circuit breakers or circuits from being turned to the "on" position during the construction period, being responsible for all damages to personnel and/or property resulting from contact with new or existing energized circuits, switches, circuit breakers, or other electrical apparatus. All electrical work to be constructed with electrical systems de-energized in the area. At no time will any work be performed on equipment or apparatus with energized circuits.

CC. Final Inspection and Acceptance:

After all requirements of the specifications and drawings have been fully completed, a representative of the

Owner will inspect the work. Provide competent personnel to demonstrate **the operation of any** item or system involved to the complete satisfaction of each representative.

2. PART 2. PRODUCTS

2.01 PANELBOARDS:

- A. Provide the automatic circuit breaker type, quick-make and quick-break panelboards. Provide wiring gutter sides, top and bottom.
- B. Provide panelboards from the same manufacturers as the main switchboard; type, mounting, and size as noted on the drawings with silver-plated copper bussing; Cutler Hammer, Square D, General Electric.
- C. Where space is called for on the panelboard schedules, provide space and mounting for future circuit breaker installation as indicated.
- D. Use trims having doors equipped with flush type combination lock and catch, two milled type keys supplied with each panel, all locks are keyed alike. Provide a clear covered directory frame with a typed identification card, indicating type of circuit and location, in accordance with final circuitry and panel designation on each door. Completely fill in all panel directories, using actual connections, Owners designations or other factual information. Key all doors to Yale LL803, or as directed by Owner.
- E. Where called for on the drawings, provide a separate compartment within the panelboards for contactors and/or time switches.

2.02 CIRCUIT BREAKERS:

Provide circuit breakers with inverse time characteristic thermal and magnetic tripping elements, with an interrupting capacity of not less than 10,000 amperes, UL labeled, NEMA rated, molded case type. Use common trip single handle multi-pole breakers. Handle extensions are not permitted. All circuit breakers will have covers sealed on non-interchangeable trip breakers and trip unit covers sealed in interchangeable trip breakers to prevent tampering. Make sure the circuit breaker current rating markings clearly visible after breaker is installed. Provide bolt on type circuit breakers of the same manufacturer as switchgear or panelboards.

2.03 POWER DISCONNECT SWITCHES:

- A. Provide power disconnect switches having product construction requirements as specified and/or indicated. Where not otherwise indicated, the following requirements apply:
 - 1. Enclosure: NEMA I, surface type in dry locations. Use NEMA 3R for exterior locations.
 - 2. Ratings: Voltage, ampacity, horsepower and inductive ratings complying with power source voltage and characteristics of load controlled.
 - 3. Mechanism: Heavy-duty, quick-make, quick-break, with voidable interlock to prevent opening enclosure in "ON" position. External lockable handle operation with provision for not less than two padlocks.
 - 4. Poles and Fusing: Comply with load requirements. Provide unfused switches except where fusing is indicated or required to comply with Code Requirements. Where fuses are installed, use dual-element time delay fuses.
- B. Provide power disconnect switches of the following manufacturers with characteristics complying with load and power source indicated:
 - 1. Westinghouse: Type HF or HU.
 - 2. General Electric: Type TH.
 - 3. Square D: Type HD or HU.
- C. Provide the number of poles necessary to include a pole for each ungrounded conductor. Equip switch with neutral terminal point where neutral is present. Do not switch neutral unless indicated.

2.04 FUSES:

- A. Provide (in a location designated by the Owner) a spare fuse cabinet with the following:
 - 1. Nameplate "spare fuses".

- 2. Necessary fuse holders.
 - 3. Spare set of each size and type of fuses.
- B. Provide dual element fuses for all 600 volt or lower voltage requirements unless otherwise indicated or specified. Where fuses are not made for this application, furnish Buss "Limitron" or approved equal fuses.
 - C. Provide Bussman Fuses as indicated on plans.
 - D. Replace fuses "blown" or damaged during construction with new fuses of proper rating and type for the particular use, replace spare sets.
- 2.05 LIGHTING FIXTURES:
- Furnish, install and connect lighting fixtures of type designed on the plans.
- A. Verify all fixture locations with Architectural drawings prior to rough in.
 - B. Where there are discrepancies in fixture types or quantities notify the Architect prior to bid with a request for information. The description of the lighting fixture supersedes the catalog number and is to be furnished and installed with type to fit description.
- 2.06 CONDUIT AND FITTINGS:
- A. Rigid Conduit (RGS): Hot dipped galvanized or sherardized steel. Republic Steel Co. or approved equal. Intermediate metal conduit may be used, where NEC allows, in lieu of RGS.
 - B. Electrical metallic tubing (EMT): Welded, electro-galvanized thin wall steel tubing. All couplings are gland compression steel type. All connectors are insulated throat or with separate plastic bushing, gland compression steel type.
 - C. Non-metallic conduit (PVC): Polyvinyl chloride Schedule 40 or 80. Install a copper ground wire, sized per National Electrical Code, in all non-metallic conduit power raceways. Use PVC in underground installations only.
 - D. Liquidtight Flexible Metal Electrical Conduit: Hot-dipped galvanized steel with exterior, molded polyvinyl jacket. Use for all final connections to all vibrating equipment, transformers and the like. 18" max. Provide a code sized ground wire.
 - E. Flexible Metal Conduit: Steel with insulated throat connectors. Use as allowed by code and where permitted by this Specification, section 3.06.C. Provide a code sized ground conductor.
 - F. Condulet Type Fittings: As manufactured by Crouse Hinds Company, Appleton Electric Company or Pyle National or approved equal, smooth inside and out, taper threaded with integral bushings.
 - G. All Conduit shall have code sized ground conductor.
 - H. Fire Alarm Conduit in concealed spaces shall be "Red" in color. Flex conduit in concealed spaces may be spot painted at three foot intervals.
- 2.07 CONDUCTORS:
- A. Provide copper conductors, 600-volt A.C. unless noted otherwise. Aluminum conductors are not permitted.
 - B. Use THWN conductors for underground and damp locations, THHN for dry areas.
 - C. Deliver conductors to the site in unbroken packages, marked with the manufacturer's name, date of manufacture, voltage and classification letters. Use only wire recently manufactured (10 months or less).
 - D. Provide signal service and low voltage control conductors as specified or noted on the drawings.
 - E. No conductor supplying 120 volts or more will be smaller than No. 12 AWG unless otherwise noted on the drawings.
 - F. Fixture wire to comply with latest requirements of the National Board of Fire Underwriters. The carrying capacity of the wire as per the latest requirements of the National Electrical Code. No fixture wire may be smaller than #18 gauge. Protect wiring with tape or tubing at all points where abrasion is likely to occur.
 - G. Install all conductors of each electrical system in an approved raceway. Factory assemblies, non-

metallic/pliable/corrugated raceways, type UF cable or multi-conductor assemblies are not approved.

H. Use solid conductor, size #10 AWG and smaller, stranded for #8 AWG and larger.

2.08 TERMINAL CABINETS:

Provide terminal cabinets fabricated of hot-dipped galvanized code gauge sheet steel for flush or surface mounting and sizes as indicated. Doors hinged and lockable with locks keyed to match branch circuit panelboards. Terminate each conductor at a terminal block and identify with an engraved fiber tag. Allow at least twelve (12) spare terminals. Provide terminal cabinets with 3/4 inch thick full size plywood backboard. Where minimum size of cabinet is not indicated, provide 8" width for each electronic system terminated in that enclosure, by 36" high.

2.09 JUNCTION AND PULL BOXES:

Above grade level, provide galvanized junction and pull boxes with removable covers, secured with machine screws. All boxes sizes are to be determined by the number and size of conductors entering the box, and by the sizes of conduit terminating in the box. All boxes conform to the applicable Electrical Safety Orders, State of California. Pullboxes flush with grade shall be concrete, with bolt down concrete or steel galvanized covers, per plans, with engraved or beadweld identification.

2.10 OUTLET BOXES:

- A. Provide galvanized outlet boxes and covers, one-piece pressed steel, knockout fixture outlets equipped with 3/8" fixture studs and plaster rings.
- B. Where standard boxes are not suitable, provide boxes of special design to fit space.
- C. Cast aluminum or cast iron for outlet boxes exposed to weather, in damp locations, or surface mounted with threaded hubs for conduit connections; cover made watertight with gasket and non-ferrous screws.
- D. Provide outlet boxes in plaster covered walls with raised covers or plaster rings to finish flush with plaster.
- E. Provide "Red" painted junction and outlet boxes for Fire Alarm Systems.

2.11 SWITCHES:

- A. Local single pole switches: Flush tumbler type A.C. rated quiet type, heavy duty, back or side wired with binding screws, 20A, 120/277V rated switches, Bryant #4901, Hubbell or Leviton #1221, Sierra #5021 or Arrow Hart #1991. Two pole, three-way and lock type of the same manufacturer. Color to be selected by Architect.
- B. Horsepower rated and approved for motor control service on switches controlling or disconnecting single-phase motor loads in excess of 1/3 h.p. Switches complete with overload devices of proper motor nameplate rating.

2.12 RECEPTACLES:

- A. Convenience outlets consist of a duplex convenience receptacle mounted in an outlet box in the wall, flush with the finish surface and complete with plate.
- B. Receptacles for convenience outlets: Standard duplex, 3-wire grounding type 20 ampere, 125 volt, Hubbell, Bryant, Leviton or Arrow Hart #5362. Color to be selected by Architect.
- C. Weatherproof G.F.C.I. receptacles: 20 ampere, 2P 3-wire grounding type, 125 volt Hubbell #GF5362, installed in FS box with Hubbell #RCV1-GFR cover for roof mounted receptacles. All other weatherproof receptacles shall be mounted in a flush hinged door enclosure with lock and key. Enclosure shall be P&S #4600-26 with a P&S #1591 receptacle or equal by C.W. Cole.

2.13 PLATES:

- A. Provide stainless steel plates for all switches, convenience outlets, telephone outlets and all other similar outlets, unless otherwise specified or noted.
- B. Television and telephone outlet cover plates to match jack.

2.14 NAMEPLATES:

Shall be micarta or lamacoid plate, 1/8" thick and of approved size, with beveled edges and engraved white

letters on black background. Provide nameplates for all items of electrical equipment as well as circuits in the service distribution and power distribution panelboards; lighting distribution panelboards; separately mounted motor starting switches; disconnect switches; motor control pushbutton stations and other similar devices. Each nameplate as approved by the Architect. Use two machine screws for attachment. Cement/adhesive is not approved.

2.15 TRANSFORMERS:

- A. Provide transformers manufactured with the minimum following attributes:
 - 1. Dry type, with copper windings, and with the ratings shown on the Drawings.
 - 2. Provide standard taps FCAN/FCBN.
 - 3. Adjust all taps to nominal 120V., 208V., or 480V., as close as practicable and as required for the voltage indicated.
- B. Provide insulation with temperature rise not exceeding 150 degrees C, under full load, in an ambient temperature of 40 degrees C.
- C. Provide transformers manufactured in accordance with current standards of IEE, ANSI, and NEMA, and provide UL listing and label.
- D. Install the transformer case on suitable vibration isolators, and connect on primary and secondary sides with minimum of 18" of liquidtight flexible metallic conduit.
- E. Where drawings specify transformers suitable for non-sinusoidal current load of specified "K Factor", the transformer shall be U.L. listed specifically for that application.

3. PART 3 - EXECUTION

- 3.01 If construction of building reveals that any part of the Electrical Work would not be readily accessible if installed according to drawings, notify the Architect before proceeding with such installation.
- 3.02 All concrete work such as pull boxes, raised pads, conduit envelopes and other areas where affecting Electrical Work are the responsibility of the Electrical Contractor.
- 3.03 Coordinate layout and installation of electrical work with the overall construction schedule and work schedules of various trades to prevent delay in completion of the project.
 - A. Verify dimensions and information regarding accurate location of equipment, structural limitations, and finish with other affected sections.
 - B. Job Conditions:
 - C. The drawings do not always show offsets, bends, special fittings or junctions or pull boxes necessary to meet job conditions. Provide the items as required at no cost to the Owner.
 - D. Weatherproof Equipment:
 - E. Use weather resistant electrical devices or equipment located in damp, semi-exposed areas. Comply with NEMA Type 3R requirements for enclosures.
 - F. Where devices are shown diagrammatically in the same location, neatly group them together in a reasonable manner. Provide one piece plate where such is manufactured.
- 3.04 Equipment requiring electrical under other sections is part of the Contract. Work includes all necessary connections.
- 3.05 EXCAVATION AND BACKFILLING:
Excavate and backfill in accordance with section in these documents covering that work.
- 3.06 CONDUIT:
 - A. Install all conduit concealed, except where specifically indicated as exposed. Use rigid galvanized steel or I.M.C. for all exposed conduit. Paint with two coats to match adjacent surroundings, if viewed by the public.
 - B. Use galvanized rigid steel or IMC on all conduit installed in concrete and masonry walls, 3/4 inch trade

size minimum, unless otherwise specified and/or noted on the plans. Conduit shall be protected with half-lapped 10 Mil. Tape or factory applied PVC coating. Verify conduit runs in concrete slab, prior to placement. Otherwise, do not run conduits in slabs.

- C. All conduit installed in the dry walls or dry ceilings of the building structures, shall be steel tube (EMT), except that in certain locations and for certain runs where it is impractical to install EMT, and where permission to do so has been given by the Architect, galvanized flexible steel conduit may be used, with a code sized ground conductor.
- D. Run conduit so as not to interfere with or contact other piping, fixtures or equipment. Maintain 6" separation from water piping.
- E. Cut the ends of all conduits square and carefully ream out to full size, and shoulder in fitting.
- F. No running threads will be permitted in locations exposed to the weather, in concrete or underground. Use special watertight union fittings in these locations.
- G. Use PVC Schedule 40 or 80 for all underground conduit. Install all underground conduit at a depth of not less than 24 inches below the final finish grade, unless under concrete slabs or otherwise noted and/or specified. Encase conduit with minimum 3 inch concrete all around with 2 inch spacing between, except under floor slab, in which case, install 6" below bottom of slab. Use IMC for all horizontal and vertical sweeps or risers with half lapped tape covering or factory applied PVC coating. Verify with serving utilities for service conduits, bends, depth below grade, backfill, etc. for specific types. Schedule 80 PVC sweeps are permitted for conduits 4" diameter and greater.
- H. Cut and patch all pavements, curbs, sidewalks and gutters, whenever necessary for laying conduit, or whenever damaged by the operations of this trade. Replace materials with quality and finish equal to that removed or damaged.
- I. Where conduit extends through roof to equipment on roof areas, provide weatherproofing as specified in the appropriate section of these Specifications.
- J. Support conduit in intervals not less than 10'-0" and within 36 inches from any outlet and at each side of bends and elbows. Use galvanized, concealed conduit supports, heavy stamped, one hole malleable conduit clamps secured with screws. On exposed conduit supports, use galvanized steel framed channels secured by screws and channel strut straps. Channels installed on roof shall be on redwood sleepers. Perforated iron for supporting conduit is not permitted.
- K. Use rigid galvanized steel or I.M.C., threaded, for exposed conduit runs. Install parallel or perpendicular to walls, structural members or intersection of vertical plane and ceilings. Avoid field made bends and offsets where possible. Do not install crushed or deformed raceways.
- L. Provide metal sleeves and install where conduit passes through masonry or concrete walls. Use No. 20 gauge galvanized steel sleeves, no more than 1/2 inch greater in diameter than the outside diameter of the conduit. Caulk conduit into sleeves with stone wool, Duseal or Oakum and weatherproof below grade. Where conduit passes through fire resistive walls, partitions, and floors, pack void spaces between conduits with U.S.G. Thermafiber or equal, as approved by the State Fire Marshal.
- M. Provide a heavy nylon cord pull rope in all empty conduits for future use. Leave in place for future use in all runs and tagged with plastic tag at terminating end indicating the location of the opposite end of the conduit.
- N. Use factory-manufactured ells, except where noted otherwise. Field bends are permitted for EMT conduit less than 1" diameter. Conduit radius for signal system is ten times the internal diameter of the conduit.
- O. Cap or seal all conduit ends until wires are pulled, then re-seal conduit ends.
- P. Use watertight gland compression type steel connectors and couplings on fittings for thin wall metallic conduit. Screw type or crimp type shall not be allowed.
- Q. Wire all rotating electrical equipment with flexible, liquid-tight conduit with appropriate slack from disconnect switch to equipment.
- R. Install expansion coupling at expansion joint locations.
- S. Use approved-type bending machines for PVC conduits. Use of blowtorch is prohibited.
- T. For grouping, use conduit trapezes made up of suitable Unistrut or Kindorf hangers.

- U. Seal or cap all conduits for a watertight installation.
- V. Provide "Red" conduit and Flexible conduit painted "red" for Fire Alarm Systems.
- W. Minimum size conduit shall be ¾".

3.07 OUTLET BOXES:

- A. Attach outlet boxes on metal studs with TEC screws. Use wood screws for attachment on wood studs. Nails are not acceptable.
- B. Cover all boxes with outlet box protector, Appleton SB-CK or approved equal. Keep plaster and dirt from entering box or panels. If plaster does get in, removed it prior to pulling in wires.
- C. Close all unused openings with plugs.

3.08 INSTALLATION OF CONDUCTORS:

- A. Unless otherwise indicated or specified, do not install conductors of less than No. 12 AWG size. For control conductors protected by 15 ampere or lower overcurrent protection, No. 14 AWG conductors will be installed. Where approved by Code, remote control and signal circuits utilize No. 18 or No. 16 AWG sizes. Increase No. 12 to No. 10 AWG for 120-volt home runs exceeding 75 feet.
- B. Color code power wire and cable for feeders and branch circuits.
- C. Install all electrical conductors, including signal and communications circuits in an approved raceway. Use U.L approved pulling compound for all conductor installation of any size.
- D. Neatly group conductors in panels, switchgear and terminal cabinets, etc., and form in a manner to fan into terminals with regular spacing. Lace formed groups of conductors with Panduit Co. Nylon Straps Numbers "SST-4-H" or "SST-2". Lace larger conductors with Panduit Co. Nylon Sta-Straps Numbers "SSC-4-H" and tie anchors ETA-1, TA-2 or TM-1-2-3 or approved equal.
- E. Install U.L. approved covered wire from all lighting fixture lamp sockets into outlet or junction box.

3.09 UNDERGROUND PULL BOXES:

- A. Set underground pull boxes at +3" above highest adjacent grade level in planter areas, and to grade in concrete or asphalt areas.
- B. No splices are permitted in any type of Power or System conductors.
- C. Size per NEC.
- D. Provide nameplate on all covers.
 - 1. "ELEC"
 - 2. "SIGNAL"
 - 3. "F.A."

3.10 CONDUCTOR JOINTS AND TAPING:

Make joints in conductors smaller than No. 6 AWG with solderless, tapeless, wing nut type pressure cable connector. Join conductors No. 6 AWG and larger together with approved type or pressure connector and tape to provide insulation not less than that of the conductor. Make connections to switch or bus bar, with one-piece copper lugs for conductors No. 8 AWG or larger.

3.11 GROUNDING:

Provide grounding for entire electrical installation as required by the serving utility and codes mentioned in these specifications. Including:

- A. Conduit.
- B. Neutral or identified conductor of interior wiring system.

- C. Power and lighting panelboards.
- D. Non-current carrying metal parts or fixed equipment.
- E. Electrical panels in separate buildings.

END OF SECTION

SECTION 28 31 00

FIRE ALARM SYSTEM

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 specifications sections and drawings for related work required to be included as work under Division 26 00 00 & 28 00 00.
 2. General provisions and requirements for electrical work.

1.02 SUBMITTALS (ADDITIONAL REQUIREMENTS)

- A. Submit eight (8) copies of the following to the Architect for approval.
1. A listing of all fire alarm components and equipment including the California State Fire Marshal (CSFM) listing numbers as shown on Fire Alarm Submittal Drawing.
 2. CSFM listing sheets of all devices being used.
 3. Manufacturers' standard catalog data for fire alarm components.
 - a. The submittal shall be arranged in the order of the Specification and shall list the specification paragraph number, the name, the proposed model and manufacturer for each item as well as a reference indicating the specific piece of data which can be easily located in the brochure.
 - b. The manufacturers' data sheets shall be marked to indicate the specific item being proposed in cases where the sheet covers several types or sizes of item. The data sheet shall completely describe the proposed item.
 - c. Where modification to the equipment is necessary to meet the operational requirements of the contract documents, the data sheets shall include complete mechanical and electrical shop drawings detailing the modification.
 4. A listing of the outlet rough-in needed for every device and equipment item. The applicable symbol which illustrates that rough-in item on the job plans shall be drawn on the proposal, opposite the description of the rough-in to facilitate locating the data by field personnel.

5. Elevation and dimensional information.

1.03 APPLICABLE STANDARDS

- A. The equipment shall be listed, labeled, and approved for the application shown in contract documents, as fire alarm equipment complying with the following requirements:
1. List of applicable codes as of November 1, 2002:
 - a) 2016 Building Standards Administrative Code, Part 1, Title 24 C.C.R.
 - b) 2016 California Building Code (CBC), Part 2, Title 24 C.C.R. (2015 International Building Code Volumes 1-2 and 2016 California Amendments).
 - c) 2016 California Electrical Code (CEC), Part 3, Title 24 C.C.R. (2014 National Electrical Code and 2016 California Amendments)
 - d) 2016 California Mechanical Code (CMC), Part 4, Title 24 C.C.R. (2015 Uniform Mechanical Code and 2016 California Amendments).
 - e) 2016 California Plumbing Code (CPC), Part 5, Title 24 C.C.R. (2015 Uniform Plumbing code and 2016 California Amendments)
 - f) 2016 California Fire Code (CFC), Part 9, Title 24, C.C.R. (2015 International Fire Code and 2016 California Amendments).
 - g) 2016 California Referenced Standards Code, Part 12, Title 24, C.C.R.
 - h) Title 19, C.C.R., Public Safety, State Fire Marshal Regulations.
 - i) 2016 California Energy Code (CEC, Part 6, Title 24 C.C.R.
 2. NFPA Standards and Guides:
 - a) NFPA 13, Automatic Sprinkler Systems, 2016 Edition.
 - b) NFPA 14, Standpipes Systems, 2013 Edition.
 - c) NFPA 17, Dry Chemical Extinguishing Systems, 20`3 Edition.
 - d) NFPA 17A, Wet Chemical Systems, 2013 Edition.
 - e) NFPA 24, Private Fire Mains, 2016 Edition.
 - f) NFPA 72, National Fire Alarm Code, (California Amended) 2016 Edition. (Note see UL standard 1971 for "visual devices")
 - g) NFPA 253 Critical Radiant Flux of Floor Covering Systems, 2015 Edition.
 - h) NFPA 2015, Clean Agent Fire Extinguishing Systems, 2004 Edition.
 3. The fire alarm system shall conform to CBC Sec. 809, CFC Article 14, Article 760 of California Electrical code, NFPA 72, and the applicable Standards and Guides referenced in CBC Chapter 60.

- B. Written certification by the fire alarm equipment manufacturer shall be submitted to the Architect, stating that the system and its component parts are listed and approved by the California State Fire Marshal and the installation has been tested, is operational and conforms to the requirements as set forth in Part 3, Article 24, Title 19, California Code of Regulations.

1.04 EQUIPMENT AND INSTALLING QUALIFICATIONS

- A. The equipment shall be manufactured by Simplex, NO SUBSTITUTIONS.
- B. The specification is based on the equipment of manufacturers who have been approved by the District and approved by the Board of Education and the manufacturers herein named shall be considered as meeting the requirements of this specification. For all items which are identified by part number and manufacturer the Performance specifications which are published in the most recent manufacturer's data sheets available at the time of bidding this project shall be applicable to the present work as though fully written out herein.
- C. All equipment shall conform to all local applicable codes and ordinances, and shall be listed by Underwriters Laboratories.
- D. To qualify as an acceptable bidder, whether the bid is submitted to the District, his agent, a general contractor or a sub-contractor, the system bidder or contractor shall be qualified fire alarm contractor and shall hold a valid C10 License issued by the Contractors State License Board of California. The system bidder or Contractor shall hereinafter be referred to as the Contractor. The Contractor shall hold all other licenses required by the legally constituted authorities having jurisdiction over the work. The Contractor shall be the factory authorized distributor for the branch of equipment offered and shall have been engaged in the business of supplying and installing the specified type of system for at least five years. The Contractor shall maintain a fully equipped service organization capable of furnishing adequate repair service to the equipment. The Contractor shall be financially able to provide a performance bond covering the work and the guarantee described. The Contractor shall provide that bond if requested.
- E. Installation Certification
 - 1. Work and material for cables, cable terminations and related components shall be performed by certified installers. The installer shall be certified by the respective product manufacturers.
 - 2. The manufacturers of the indicated work and material, shall provide a installer education/training and certification program for the supplied products.

3. The installers performing the Contract work for the indicated products, shall have attended and successfully completed each of the respective manufacturer's installation training education programs for the specified products.
 4. Submit six (6) copies of the manufacturer's certifications for each installer performing the work. The submittal shall be approved prior to initiating any related contract work.
 5. All installers shall have a State of California License to perform the Fire Alarm installation.
5. Contract material installed and work performed by installers not complying with these requirements shall be removed. Removal of work and material not in compliance with these requirements shall done at the CONTRACTOR'S expense, without any additional cost to the contract and without any additional contract completion due date extensions. New material and work required to replace the non-complying removed work and material shall be provided at the CONTRACTOR'S expense, without any additional cost to the contract and without any additional contract completion due date extensions.
 6. Certifications: Submit certification from the equipment manufacturer indicating the installer is an authorized representative of the equipment manufacturer in the area the new system is to be installed in and is trained on network applications.
 7. Electrical Materials and equipment installed shall be new.
 8. All of the equipment in this specification shall be furnished and installed by the Authorized Factory Distributor of the equipment. The Contractor shall furnish a letter from the manufacturer of al major equipment, which certifies that the installing Contractor is the Authorized Distributor and that the equipment has been installed according to factory intended practices. The Contractor shall also furnish a written guarantee from the manufacturer that they will have a service representative assigned to this area for the life of the equipment.

1.05 WARRANTY

- A. Manufacturer shall provide a 5 year material warranty. Installer shall provide a 3 year labor warranty.
- B. Complete maintenance and repair service for a fire alarm system shall be available from a factory trained authorized representative of the manufacturer for a period of 5 years after expiration of the warranty.

PART 2 - PRODUCTS

2.01 GENERAL SYSTEM OPERATION

- A. System shall be microprocessor-based, addressable, and power-limited with Class A or Class B supervised circuits.

1. The microprocessor shall execute all supervisory and control programming to detect, report the failure or disconnection of any system module or peripheral device and initiate programmed control sequences. An isolated supervision "watchdog" circuit shall monitor the microprocessor and, upon failure, shall activate the system trouble circuits.
2. The automatic fire detection and alarm system shall consist of main control panel, transponder panel(s), notification alarm devices, remote annunciator, automatic detection devices, manual stations, printer, and CRT/keyboard, installed and wired in accordance with the drawings and shall function as specified herein.
3. The system shall be programmable in the field, by a non-computer trained person. All programmed information shall be stored in non-volatile memory.
4. The system shall operate both addressable and non-addressable ionization, thermal and photoelectric detecting devices, manual stations, water-flow switches, and external control modules.
5. The control panel shall provide power, annunciation, supervision and control for the fire detection and alarm system. The system shall be designed such that alarm indications override trouble and control conditions.
6. External circuit supervision shall not require additional wires other than the pair used for detection or alarm (only two wires shall be used from the control panel to each loop of initiating devices and two wires for the notification alarm devices). These two wires shall provide both supervision and notification alarm signals. There shall be no loss of supervision for Class "B" wired addressable devices. Class "A" supervision may be provided by adding an additional pair of wires.

B. Alarm Conditions

1. Actuation of any manual or automatic alarm initiating device, connected to the system shall cause the following automatic functions.
 - a) All notification alarm signaling units shall activate continuously. Audible notification alarms shall sound the California State coded signal.
 - b) The respective zone alarm lamp or annunciator alpha numeric readout on the central control panel, and remote annunciator panel, shall be activated.
 - c) Activate the Digital Alarm Communicator system. System shall transmit the condition to a UL listed central station monitoring facility. Supervisory station shall be approved per 2007 CFC 1006.2.4.2.2.1.5.

2. Actuation of HV/AC air duct smoke detectors shall stop the designated fans and motors in the building's air distribution system.
3. Actuation of smoke detectors on either side of smoke doors shall energize the release mechanism on the smoke door causing the door to close.
4. Notification alarm signal duration shall be capable of continuous sounding or adjustable from three to ten minutes.
5. Perform any additional functions as specified herein or shown on the drawings.

C. Trouble Condition

1. A single open or single trouble condition in a manual or automatic fire initiating wiring circuit shall activate the respective zone trouble lamp or annunciator readout on the fire alarm control panel and sound a trouble signal at the control panel.
2. A single open or single trouble condition in the notification alarm signaling wiring circuit shall activate the trouble lamp or annunciator readout in the control panel and sound a trouble signal at the control panel.
3. 120 volt AC normal power shall be monitored with indication by a "power on" lamp. Upon normal power outage, the system shall activate a power trouble condition lamp or annunciator readout, and indicate a trouble condition.
4. The control panel shall monitor the standby batteries and, upon a low battery condition, activate the low battery lamp or annunciator readout and indicate a trouble condition.
5. System ground detection shall be provided for the entire system. Upon ground detection, activate the ground detection lamp or annunciator readout and indicate a trouble condition.

- D. Control panels employing alpha numeric readouts shall display the trouble condition along with a prompt to review the list chronologically. The end of the list shall be indicated.

2.02 FIRE ALARM CONTROL PANEL SHALL BE 4100-9114

A. General

1. Fire alarm control panel shall connect via Peer-To-Peer network basis to the existing Truesite Work Station located at the SMMUSD Maintenance Office.
2. The fire alarm control panel shall be software programmable, microprocessor controlled, solid state, electronic integrated system. The panel shall be the product of one manufacturer. The control panel shall provide power, annunciation, supervision and control for the detection and alarm system. The detection system shall remain 100% operational, responding to an alarm condition while in the routine maintenance mode.

3. Addressable detection and control devices shall be individually identified by the system, and any quantity of addressable detection devices shall be in alarm and any quantity of addressable control units shall be operable at any time up to the total number connected to the system.
4. The microprocessor shall access the system program, which is stored in non-volatile programmable memory, for all control-by-event (CBE) functions. The system program shall not be lost upon failure of both primary and secondary power. Volatile memory shall not be acceptable.
5. A means shall be provided for acknowledging each abnormal condition. Each activation of the appropriate acknowledge button shall sequentially acknowledge every point in the system. After all the points have been acknowledged, the LEDs shall glow steady and the panel audible signal will be silenced. The total number of alarms, supervisory, and trouble conditions shall be displayed along with a prompt to review each list chronologically. The end of the list shall be so indicated.
6. An alpha numeric annunciator readout shall indicate on the control panel the activation by type, loop, and address of the specific device, sub-loop or alarm/monitor/control point via an alpha numeric display. An audible alert, shall sound at the control panel and an alarm light shall flash.
7. If the microprocessor fails, the system shall executive a default signaling program. This program shall enable the control panel to sound the audible signals and summon the Fire Department. In addition, a red LED shall light to indicate the communication loop wherein the alarm originated. Inability of the system to sound signals or summon the fire department during microprocessor failure shall not be acceptable.
8. Protected access to the system controls shall be provided to allow the user/operator access to the following system functions:
 - a) Status of all addressable points.
 - b) Status of all events logged.
 - c) Set/change the real-time clock and date.
 - d) Perform an operational manual test of the system from the control panel, including actuation of any initiating device and trouble circuit without alarming the remote central station. The panel shall automatically return to normal mode in the event the panel remains unattended in the service mode.
 - e) Retrieve from event log the last 300 alarms, or control points and 300 trouble conditions.
9. Individual input (monitor) and output (control) device addressability shall all be performed on the same pair of wires. Wiring shall be Class "A" or "B". When Class "B" wiring is used, no special wiring sequence shall be required on addressable device circuits. An unlimited number of wiring branches shall be permitted with no loss of supervision.

10. A minimum of 25% addressable monitor, trouble and control points shall be provided.
- B. Cabinet
1. A metal tamper resistant cabinet shall contain the control panel components. Panel shall be surface or flush mounting as indicated on the drawings. Provide a full height tamper resistant hinged locking cabinet door. The door shall have transparent, high impact windows to allow visual observation of all indicators and switches without opening the panel door.
 2. "In-out" circuit conductors shall terminate on numbered screw-type terminals.
 3. All groups of circuits or common equipment shall be clearly marked and shall be expandable by inserting interchangeable units.
- C. The control panel shall provide positive protection against the fire alarm system inadvertently being left in a non-operating status. The alarm system shall automatically restore and resound alarms and trouble signals, if subsequent alarm initiating or trouble signals are received under any of the following conditions:
1. After the alarm or trouble silence switch have been activated.
 2. Prior to resetting system after previous alarm or trouble conditions.
- D. The system indicating and operational control devices shall be mounted on the control panel face behind the panel door and shall provide the following minimum functions:
1. Individual visual indicating pilot lights annunciator or alpha numeric readout to monitor the following alarm system conditions:
 - a) Input power.
 - b) System common alarm.
 - c) System common trouble.
 - d) Alarm or trouble signal silenced.
 - e) Ground fault.
 - f) Battery condition.
 - g) Each individual alarm, control or initiating zone-activation.
 - h) Each individual alarm, control or notification zone-trouble.
 - i) Report, by specific device number, any device removed from an addressable initiating circuit, all other devices shall continue to function.

2. Manual control switches to allow the following system controls:
 - a) Alarm silence.
 - b) Trouble silence.
 - c) Test all indicating pilot lights and readouts.
 - d) System reset, including remote devices connected to the alarm panel.
 - e) Alarm test to initiate an alarm condition from the control panel.
 - f) Alarm disconnect for system testing without activating the Digital Alarm Communicator system.
 - g) Changing the status of configured circuits (arming or disarming and changing status of relays). If any change in status degrades system operation as configured, a trouble condition shall be reported and remain until system operation again meets configured status.
 - h) Perform multiple operations at the same time. These operations shall include but not be limited to timed functions and multiple configured sequences.
- E. Alarm initiating zone modules.
1. Shall supervise and accept remote alarm actuating device input signals. An alpha numeric readout shall indicate separate zone alarm and trouble indicators for each zone.
 2. Zones shall be compatible, and designed to operate with the connected initiating devices either addressable or non-addressable type.
 3. A spare double throw set of software programmable auxiliary alarm relay contacts shall be provided for control of remote devices for each zone. Contacts shall be rated 120 volt-60 HZ 3 Ampere.
 4. Each device on the system shall report as its own unique address.
- F. Notification alarm signal control.
1. Shall supervise and activate remote notification alarm devices.
 2. Notification alarm shall be compatible and designed to properly operate with the connected audio and visual notification alarm devices, with no signal degradation.
 3. The notification alarm shall provide group notification signal control of all notification zones.
 4. The alarm modules shall be field resettable to provide either continuous or coded notification alarm signals. The coded alarm signal shall provide an intermittent "on-off" pulsed sound activation of audible notification alarm devices.
 5. A notification alarm circuit trouble indicating readout shall be provided for each notification zone.

- G. Automatic ground detection shall detect either positive or negative voltages when earth connections of 50,000 OHMS or less occur, and activate the ground trouble signal.
1. A ground fault code shall provide indication of either a positive or negative ground fault and shall operate the general trouble devices as specified herein but shall not cause an alarm to be sounded.
 2. A short circuit error message shall be a standard feature of the fire alarm control panel. Each communication loop shall be monitored for short circuits and shall have a distinctive error message for visual indication of circuits and operating trouble devices as specified herein but shall not cause an alarm to be sounded.
- H. Power Supply Shall be 4009-9201
1. The power supply shall be adequately sized to properly operate the equipment, including remotely connected, spare and future indicated equipment with all alarm devices in alarm condition. Provide 20% spare power supply capacity for future expansion. Provide transfer modules and multiple power supplies as required for proper operation.
 2. Input voltage 120/240 volt or 120/208 volt 60 HZ. A.C.
 3. Surge transient voltage protection on the input and output phases of the power supply shall be provided.
 4. Supervised voltage types (i.e., 120V-60HZ A.C., 24 volt A.C., 24 Volt D.C., etc.)required by special connected equipment shall be supplied, including but not limited to:
 - a) Alarm initiating devices.
 - b) Notification alarm devices.
 - c) Control and annunciator panels.
 - d) Fire and smoke dampers.
 5. A solid-state power transfer circuit shall provide (UPS) uninterrupted power supply between internal standby power and line power automatically and instantaneously if normal power fails or falls below 15% of normal ("brown out" conditions).
 6. Individual circuit fuses shall be provided for smoke alarm detector power, main power supply notification circuits, battery standby power, and auxiliary output.
- I. Battery Back-Up Operation
1. Internal batteries and battery power supplies shall be provided to allow 24 hours continuous automatic normal operation of the entire control panel and fire alarm system after the failure of the incoming utility power. Sufficient battery capacity shall remain at the end of 24 hour period to provide ten minutes of continuous operation of all connected notification alarm devices.
 2. Batteries shall be maintenance free, sealed, lead-acid or lead calcium or gelled electrolyte type rated 25% larger than required to provide power for

the entire system upon loss of normal 120 VAC power for a period of sixty (24) hours with five (5) minutes of alarm signaling at the end of this sixty-hour (24) period.

3. The battery charger, shall be automatic, dual rate with capacity to recharge completely discharged batteries in 18 hours. Charger shall be temperature compensated.
- J. Lighting and transient voltage surge protection shall be a standard feature of the fire alarm control panel and shall be incorporated in the power supply circuit, common control circuits, signal circuits, and telephone line circuit.
- K. Circuitry shall be provided in the control panel to permit transmission of trouble and alarm signals over leased or privately owned telephone cables to a remote receiving panel. A reverse polarity or a masterbox circuit as required, shall be provided in the control panel. There shall be a supervised disconnect switch to allow testing of the fire alarm signal without transmitting an alarm signal to the central station.
- L. The alpha numeric annunciator (printer and CRT/keyboard) shall list upon request:
1. Alarms with time, date and location.
 2. Troubles with time, date and location.
 3. Status of output functions, "on" or "off".
 4. Sensitivity of addressable smoke detectors.
 5. Detection device number, type and location.
 6. Status of remote relays, "on" or "off".
 7. Acknowledgment time and date.
 8. Signal silence time and date.
 9. Reset time and date.
- M. The system shall also provide the following:
1. Counting the number of addressable detectors within a "zone".
 2. Which are in alarm.
 3. Counting "zones" which are in alarm.
 4. Counting the number of addressable detectors which are in alarm.
 5. Alarm on the system.
 6. Differentiating among types of addressable detectors such as smoke detectors, manual stations, water-flow switches, thermal detectors.
 7. Assigning priorities to types of detectors, zones or groups of detectors.
 8. Cross-zoning.

M. CONTROL FUNCTIONS

1. Control functions shall be assigned on the basis of multi-relational system initiation patterns of detection devices including full logic element equations using as "anding" zones, counting zones, counting devices, "anding" groups, conditional "if", "then", "or" programming and "anding" types of detection devices.
2. Control functions shall be assigned on the basis of, cycle, delay, count, time of day, day of week, day of month and with a holiday schedule of up to thirty (30) holidays per year. Each addressable detection device shall report its condition to the system control unit not less than every four (4) seconds in a manner such that failure of the connections to the internal electronics of the device will result in a trouble signal which identifies the specific device involved.
3. The system shall be field programmable for the response of control points to monitored devices.
4. The operating software program shall provide programmable control for the Event-Initiated-Programs (E.I.P.) which shall allow automatic operation of system control points in the event of a alarm condition. To program these E.I.P.'s, the system shall use a specifically designed user friendly programming language, which shall not require a knowledge of computer programming to learn and understand.
5. The operating software shall support the following additional capabilities:
 - a) Three levels of designated and unique Priority Alarms for each point.
 - b) Designated "Sense Mode" for status interpretation for each point.
 - c) Designated Print/No Print/Vectoring Mode for each point.
6. The input statement defines the conditions required to activate the associated output statement. The input statement shall consist of single or multiple monitor point status, subroutine status, time comparison and the utilization of AND, OR, NOT, COUNT, and DELAY logic functions.
7. The output statement defines the action to be taken by the control panel. The output statement shall consist of activation/deactivation of single or multiple control functions, subroutines, and remote Annunciator status LED's. Output statements shall also include the "Alert" messages.
8. The software shall provide an "alert" message, unique to each point in the system, which will provide specific instructions for the operator on duty. These messages shall be up to 5 lines with up to 70 characters in each line. Each system monitor point shall have 5 specific alert messages when in alarm. Control points shall also be assigned alert messages.

9. The hardware and software shall have the capacity to accept up to 64 independent programs. Each program shall have "Edit" or "No Edit" capability. Each program shall be written in an equation format comparable to ladder-logic equations. The Equations shall consist of an input and an output statement.
10. Provide initial programming services for coding, loading and debugging the initial Owner specified programs, as part of the contract.
11. Programming Command Definition
 - a) Timing command shall provide time delay and time control functions based on internal clock/calendar by time of day; day of week; day of month; month in year.
 - b) Count command shall provide a specific number of events to occur before a control action is initiated.
 - c) Pulse command shall provide on control for a specific period of time.
 - d) Cycle command shall provide on-off control for preset periods of time.
 - e) Print command shall provide printing of specified information after an event occurs.

2.02a EXISTING TRUESITE WORKSTATION (TSW) NETWORK ANNUNCIATORS

, ^ All newly installed 4100ES FACP shall be networked to the TSW located at the MIS Building for point for point annunciation.

· ^ The following items are features of the existing Truesite Workstation

- i ° UL 864 Listed for Proprietary Supervising Station.
- ı ° Industrial Grade Pentium 4, 2.8GHZ (minimum) Personal Computer with detachable keyboard and mouse with required operating system
- ø ° CPU Mother Board with 8 Expansion Slots (7 PCI, 1 ISA)
- æ ° Hard Drive greater than 40 Gigabyte (minimum) capacity
- Ω 3 1/2 inch 1.44 Megabyte Floppy Drive
- ° ° 19-inch high-resolution color LCD monitor
- a° CD Read/Write
-] ° 1GB RAM (minimum)
- ıı SVGA Graphics Controller with 16 Megabyte VRAM
- ıı USB Port for Security Key

- k) Serial Port for Event Printer
 - l) Serial Port for Graphics and Reports Printer
 - m) UPS Secondary Standby Power Supply, UL Listed for Fire Alarm use
 - n) Pre-programmed functions
 - o) A fully functional Network Node communicating on the network. Capability to interface with up to four (4) Network Loops.
- C. The workstation monitor shall be mouse operated and serve as the interactive interface between the operator and the network system. From the mouse the operator shall be able to perform the following tasks:
- a) Acknowledge all alarm and return to normal conditions
 - b) Reset system
 - c) Display list menus
 - d) Select the individual message screens
 - e) Perform manual operation of system(s) control points
 - f) Request the "HELP" menu
 - g) Perform operator login / logout
 - h) Connect (Set Host) to other nodes
 - i) Perform graphic editing functions
 - j) Set the system time and date]
 - k) The unit shall be equipped with at least seven (7) levels of password-protected access.

2.03 FIRE ALARM DIGITAL ALARM COMMUNICATOR TRANSMITTER

- A. Enclosure shall be red.
- B. Panel shall be solid state with eight zones for off premise monitoring of the fire alarm control panel.
- C. System shall monitor alarm and trouble conditions. System shall be power limited.
- D. System shall include dual telephone line switcher for central station reporting. Telephone lines shall be supervised.
- E. System shall include dual battery harness, batteries, and battery charger.
- F. System shall be UL listed for central station fire signaling systems (NFPA 71).
- G. System shall be California State Fire Marshal approved for central station reporting.
- H. System shall be Radionics D8112FA Series or Simplex 5071 Series. System shall be approved for connection to the fire alarm control panel.
- I. Verify specific requirements with District and central station prior to submittals.

2.04 MANUALLY ACTIVATED ALARM INITIATING DEVICES

- A. An electronic, digital multiplex, addressable module shall be incorporated into each device. The module shall communicate the status and trouble condition of each device with a unique address code. The module shall communicate with and be supervised and monitored by the fire alarm control panel.
- B. Devices shall be suitable for use on a class "B", 2-wire supervised alarm initiating circuit.
- C. Numbered screw type terminals shall be provided for "in-out" connections of the alarm circuit wiring.
- D. The face of the station shall have lettering indicating "FIRE" and operational instructions. Stations shall be tamper resistant, semi-flush mounting.
- E. Auxiliary spare switch contact shall be provided for control of remote devices rated 120 volts - 60HZ, AC - 3AMP minimum.
- F. Stations shall provide visual indication the station has been activated. A key (and/or special tool) shall be required to gain access into the station to reset the station after being activated.
- G. Stations shall be "nonbreak-glass" type.
- H. RF and transient filtering shall be provided in the device electronics.
- I. Pull stations shall be non-coded double action, requiring two distinct manual "pulling" actions to initiate the fire alarm system.
- J. Stations installed outdoors shall be weather resistant construction, double action to activate the pull station.

2.05 AUTOMATIC ALARM INITIATING DEVICES

- A. General
 - 1. An electronic digital, multiplex, addressable module shall be incorporated into each device. The module shall communicate the status and trouble condition of each device with a unique address code. The module shall communicate with and be supervised and monitored by the fire alarm control panel.
 - 2. Devices shall be suitable for use on a Class "B", 2-wire supervised alarm initiating circuit. Where initiating devices are shown connected to an existing system, devices shall operated on two or four wire circuits plus - 2 - wire power circuit as required by the existing equipment.
 - 3. Numbered screw type terminals shall be provided for "in-out" connectors of the alarm circuit wiring.
 - 4. Auxiliary double throw spare relay contact shall be provided for activation of remote rated devices 120V-60Hz, AC - 1 Ampere minimum.

5. RF and transient filtering shall be provided in the initiating device electronics.
 6. Initiating devices shall be reset from the control panel and shall not require individual resetting.
- B. Smoke Detector Shall be 4098-9714
1. Detectors shall comply with UL standard 268, 167 and 168, and shall use solid state electronic circuits throughout.
 2. The smoke detector shall operate on a total of two circuit wires. Alarm signaling and detector power shall use the same conductors. Detector sensitivity shall be factory set at 1.5%.
 3. A fine mesh insect screen shall be provided on all detector openings.
 4. The detector shall lock-in on alarm and shall provide a visual alarm/trouble indicator light. An electromechanical test feature shall provide functional testing of the unit without smoke.
 5. The detector shall also incorporate a fixed temperature heat detector rated at 135 degrees F. The heat detector shall operate the alarm circuit and alarm/trouble light.
 - a) Photo electric type smoke detectors shall employ a light emitting diode (LED) as the detector light source, activated by the presence of combustion smoke products. Failure of the LED shall activate the alarm/trouble light on the detector.
 - b) Ionization type smoke detector shall employ the triple chamber (dual chamber) ionization principle, activated by the presence of combustion products. The ionization chamber shall be RF shielded.
 - c) Air duct smoke detector photo electric or ionization type for installation on a mechanical air ducts. Two air tubes shall extend into the air duct. The sampling tube shall extend across the entire width of the air duct. The second tube shall allow air to escape back into the duct.
- C. Ceiling Mounted – Heat Detector Shall be 4098-9733
1. Heat detectors shall be dual action electro-thermostatic combination rate of temperature rise and fixed temperature operation. A indicator shall be visible when detector has activated.
 2. The rate of rise element shall be self restoring, after activation.
 3. The fixed temperature unit shall be set at 136 degrees F (190 degrees F for high temperature areas i.e. over 110 degrees F.)
- D. Attic Mounted – Heat Detector Shall be System Sensor 5602

1. Consists of both single and dual circuit heat detectors featuring fixed temperature thermal sensors or combination fixed temperature/rate of rise sensors, with temperature ratings of 125 degrees F or 194 degrees F
 2. 5602 heat detector shall be used in conjunction with the 4090-9001 monitoring module to maintain individual addressability.
- E. Fire Sprinkler Water Flow Detector.
1. Vane-type water flow detectors shall be provided on the sprinkler system piping as shown on the drawings. Detectors shall be designed for mounting on either vertical or horizontal piping, but shall not be mounted in a fitting or within 12 inches of any fitting that changes the direction of water flow.
 2. The detectors shall have a sensitivity setting to signal any flow of water that equals or exceeds the discharge from one sprinkler head.
 3. Detector switch mechanisms shall incorporate an instantly recycling pneumatic retard element with an adjustable range of 0 to 70 seconds. Switches shall have a minimum rated capacity of 7 amp 125 volt A.C. - .25 amp 24 volt D.C. A D.P.D.T. switch shall be actuated by a polyethylene vane extending into the waterway of the piping.
 4. Detectors shall be of weatherproof, dust tight construction and shall provide a 3/4 inch conduit entrance. Detector shall be finished in red baked enamel.
 5. Flow switch shall be sized to match the fire sprinkler riser pipe diameter.
- F. Fire Sprinkler Valve Tamper Switch
1. Tamper switch shall monitor the position of the fire sprinkler shut-off valve. Operation of the valve shall activate the switch and activate a trouble alarm.

2.06 NOTIFICATION ALARM DEVICES

A. General

1. Notification alarm devices shall activate automatically from the control panel. Devices shall operate on a Class "B" (Style Y), 2-wire supervised alarm notification circuit. Series wired alarm devices shall not be used.
2. Numbered screw type terminals shall be provided for "in-out" connections of the alarm circuit wiring.
3. Devices shall be installed in a box, 3 1/2" deep maximum, flush mounting unless indicated otherwise on the drawings. Size as required for the alarm indicating device and wiring connections. Provide a trim ring and metal grill cover assembly. Cover assembly shall be minimum of 1/16" minimum thick flat stainless steel or aluminum. Finish color as selected by Architect. The word "fire" shall appear on the grill minimum 1/2" letters. The grill shall be attached with screws to the box.

- B. Audible Alarm Speakers/Strobes shall be ceiling mount Exceder LSPSTRC3.

- C. Visual Alarm Indicator Shall be Exceder LSTRC3.
 - 1. Lamp/Strobe internally illuminated projecting lens assembly, with flasher system. Unit shall flash on and off to provide visual indicating of fire alarm.
 - 2. The word "fire" shall appear on the lens or lens plate.
 - 3. Flash rate, one flash per second, with a flash duration of approximately 0.001 second, flash rate independent of audible device.
 - 4. Light source, Xenon high intensity flash strobe tube white/clear color.
 - 5. Strobe shall have a minimum output of 75 candela with a maximum flash intensity of 120 candela.
 - 6. Strobe shall comply with NFPA requirements.
- D. Outdoor Speaker – Wheelock ET1010 w/ WBB Backbox.

2.07 ANNUNCIATOR Shall be 4100-9401ES InfoAlarm Display

A. General

- 1. The annunciator panel shall be powered and operated from the fire alarm control panel. "In-out" circuit conductors shall terminate on numbered screw-type terminals.
 - 2. Up to six "softkeys" per screen provide functions that vary with particular screen information aiding operators to determine how to proceed.
 - 3. 320 X 240 dot matrix (QVGA) display provides an active area of 4.53" W X 3.4" H displaying up to 854 characters using standard ASCII character fonts.
 - 4. Up to two languages are available per system, easily selected by programmable key press on the 2 x 40 LCD panel.
- B. Each alarm initiating zone (including spares) shall be individually annunciated in the annunciator panel.
 - C. A common fire trouble alarm shall be annunciated in the annunciator panel from the fire alarm control panel.
 - D. Annunciator lamp circuits shall be automatically supervised. Provide lamp test switch in the annunciator panel.
 - E. An audible alarm/trouble buzzer with silence switch and automatic resound for subsequent alarm/trouble signals shall be provided. The annunciator panel shall be automatically reset when the control panel is reset.
 - F. A keyed switch shall be provided for remote reset of the system. The annunciation panel shall also be automatically reset when the control panel is reset.
 - G. Provide a floor plan of the facility framed under acrylic and mounted adjacent to the fire alarm annunciator. The floor plan shall be to scale and shall have room numbers clearly displayed on all rooms corresponding to the annunciator for the purpose of easily identifying the fire zones.

- H. The installer shall provide a site map to each annunciator showing all rooms with designations and buildings with names as programmed into the fire alarm system. The map shall include symbols indicating the locations of all installed fire sprinkler flow switches, shut off valves, horns, strobes, and manual pull stations. The map shall be in a frame and attached to the wall using the appropriate material.

2.08 REMOTE EQUIPMENT MONITORING AND CONTROL Shall be 4090-9001

- A. An electronic digital multiplex addressable module shall be provide at each device or equipment indicated to be controlled by the multiplex system. Multiple addressable control ports shall be provided in each module quantity as required for each point controlled or monitored. The module shall communicate the monitor status control action and trouble condition of each device with a unique address code. The module shall communicate with and be supervised and monitored by the fire alarm control panel.
- B. Where multiple points are monitored or controlled, provide digital, multiplex, multipoints, monitor, control panel (MMCP). The panel cabinet shall be self contained NEMA 1 [3R] construction and hinged locking door. Provide tamper switch detection zone on the cabinet door, provide 24 hour battery UPS backup and power supply, the same as required for the fire alarm control panel. Panel shall be expandable using plug-in circuit monitor/control printed circuit cards. Provide barriered numbered terminal strips.
- C. Each control point shall provide a supervised "dry" relay contact single pole double throw maintained contact rated 10 ampere, 227 volt, 60 HZ A.C.
- D. Each monitor point shall provide not less than one of the following supervised methods of monitoring a remote device or equipment action or status.
 - 1. Remote "dry" contact operation normal open, normally closed or momentary contact operation.

PART 3 - EXECUTION

3.01 IDENTIFICATION (ADDITIONAL REQUIREMENTS)

- A. The inside cover of alarm initiating devices shall be marked with the zone initiating number corresponding to the zone number in the control panel. Marking shall be with a felt-tip pen.
- B. Each fire alarm terminal cabinet shall be painted red.
- C. Provide nameplate: "Power to Main Fire Alarm Control Panel" screwed onto the branch circuit overcurrent device supplying power to the main fire alarm control panel.

3.02 WIRING (ADDITIONAL REQUIREMENTS)

- A. Review the total system point-to-point wiring layout to assure that the correct number and type of wires and conduit sizes are installed.
- B. Final connections, testing, adjusting and calibration shall be made under the direct supervision of a factory-trained technician of the system supplier.

- C. All wiring shall be in conduit.
- D. All wiring in cabinets shall be neatly formed, laced and made up on bolt and nut terminal blocks. Tag all spare conductors. All conductors shall terminate on terminal strips with spade lugs, of adequate size for all incoming and outgoing conductors. The strips shall be labeled as to their use and wiring diagram shall be placed on the cabinet door showing connections of all related equipment to these strips.
- E. Wiring requirements for shielding certain conductors shall be as recommended by the manufacturer. Provide all conduit, raceways and conductors per manufacturers recommendations and include all material and labor costs in the contract price.
- F. The conductors used for digital, multiplex communication between the fire alarm control panel and external remote initiation devices, control points and annunciators, shall be twisted, shielded, multi-conductor cable, #16 AWG copper minimum with a separate internal ground/drain conductor, UL listed for fire alarm system use. One spare pair of multiplex conductors shall be provided in all main and branch device/equipment connections for future system use. "Tees" and taps at any junction box location in the communication lines, shall be permitted by the system to additional devices without affecting proper system operation.
- G. Wire Size: Wire shall be sized to insure installed circuit voltage drop does not exceed 10% to all devices.
- H. In terminal cabinets, installer shall provide a wire index identifying the building and locations of devices.

3.03 OUTLET BOXES (ADDITIONAL REQUIREMENTS)

- A. Device outlet boxes shall be flush mounted unless indicated otherwise on the drawings. Provide extension rings to finish flush with finish surface. Where the drawings indicate surface mounted devices, outlet boxes shall be cast metal with threaded hubs. Where the conduit entrances are not exposed for surface mounted devices, provide flush outlet box behind the device box and omit the conduit hubs on the device box. Size device boxes and outlet boxes per manufacturers recommendation and as required by code for wire fill.

3.04 SPECIAL INSTALLATION REQUIREMENTS

- A. Air duct smoke detectors shall be installed in the supply air ducts and return air ducts with an air flow of 2000 CFM or greater, coordinate with mechanical contractor. Sampling tube shall extend across entire duct width. Provide 3/4" conduit with 2#12 to respective motor control device to automatically shut down the respective fan motor upon detection of smoke in the air duct.
- B. Water flow switches shall be installed on each main fire sprinkler rise pipe, coordinate with the fire sprinkler contractor.
- C. Tamper switches shall be installed on each main fire sprinkler shut-off valve, coordinate with the fire sprinkler contractor.

- D. Equipment shall be weatherproof gasketed where installed in locations exterior to the building, or where indicated on the drawings. Weatherproof equipment shall be tamper resistant.
- E. Connect fire alarm control panel with security/intrusion control panel for monitoring by remote monitoring company.
- F. Connect fire alarm control panel with master clock system to turn off class passing schedule, with paging system to turn off system when fire alarm system in alarm condition.
- G. Conduit with fire alarm wiring shall be painted red.
- H. Fire alarm system shall be programmed per actual building and room designation. Submit printout for review.

3.05 TESTING

- A. The entire fire alarm system shall be tested in the presence of the local DSA Inspector and a representative of the manufacturer after the installation is complete.
 - 1. Individually activate each manual initiating station and verify correct alarm operation and control panel response.
 - 2. Individually test each automatic initiating device and verify correct alarm operation, control panel response and remote equipment operation.
 - 3. The communication loops and the notification alarm circuits shall be opened in at least two (2) locations per building to check for the presence of correct supervisory circuitry.
- B. Test the battery back-up system by disconnecting the incoming normal power and allowing this alarm system to operate 24 hours on battery power. Sound the alarm system for five minutes at the end of 24 hours on battery power.
- C. Perform all electrical and mechanical tests required by the equipment manufacturer's certification form. Measure and adjust each automatic detection detector to the maximum stable sensitivity setting. Detector tests shall be performed with the detector at its operational location and under normal operational environmental conditions in the area. Bench settings are not acceptable. An operational check-out test and report shall be performed. Submit six copies of test report results. The tests and report shall include, but not be limited to:
 - 1. A complete list of equipment installed and wired.
 - 2. Indication that all equipment is properly installed and functions and conforms with these specifications.
 - 3. Test of individual zones as applicable.
 - 4. Serial numbers, locations by zone and model number for each installed detector.
 - 5. Voltage (sensitivity) settings for each ionization and photoelectric detector as measured in place with the HVAC system operating.

6. Technician's name, certificate number and date.
 7. The completed manual and automatic monitoring and control system shall be tested to insure that it is operating properly. This test will consist of exposing the installed units to a standard fire test.
 8. Acceptance of the system shall also require a demonstration of the stability of the system. This shall be adequately demonstrated if the system operates for a ninety (90) day test period without any unwarranted alarms. Should an unwarranted alarm(s) occur, the contractor shall readjust or replace the equipment and detector(s) and begin another ninety (90) day test period. As required by the Architect, the contractor shall recheck the detectors using the fire test after each readjustment or replacement of detectors. This test shall not start until the District has obtained beneficial use of the building under tests.
- D. After the testing has been completed to the satisfaction of the inspectors, provide the NFPA certificate of compliance to the District, the local Fire Official, the Architect and DSA.
 - E. Upon the receipt of Certificate of Compliance, the installer/supplier shall supply the Owner with a written operating, testing and maintenance instructions, point-to-point as-built drawings, and equipment specifications.
 - F. Provide a two (2) hour instructional sessions conducted by a factory-authorized technician at the job site after completion of all tests to instruct School District personnel on the use of the system. The first session shall be videotaped and conducted prior to final acceptance of the project. The second session shall be held within eleven months of final acceptance of the project, when requested by the District.
 - G. Installer shall protect all work until the Fire Alarm System has been accepted by the Inspector.

3.06. OPERATING/SERVICE MANUALS

- A. Submit 5 copies of service all manuals and all current programming software including the following:
 1. Detailed explanation of the operation of the system.
 2. Instructions for routine maintenance.
 3. Detailed instruction for repair of major components of the system.
 4. Pictorial parts list and art numbers.
 5. Pictorial and schematic electrical drawings of wiring systems, including operating and safety control panels, annunciators and major components.
 6. Installation instructions for system components.
 7. Programming instructions and programming disk(s).
 8. Programming listing.
 9. Final test report.

10. A single reproducible set of record drawings reflecting the system exactly as it was installed including exact locations of components.

END OF SECTION