PROJECT MANUAL FOR:

DORM PLUMBING REPLACEMENT

COALINGA, CALIFORNIA
03/30/26

COALINGA COLLEGE
WEST HILLS COMMUNITY COLLEGE DISTRICT
PROJECT NO: 391-0144

SET NO: _____

3434 Truxtun Ave. Suite #240 Bakersfield, CA 93301
661.327.1690 661.327.7204 fax
www.aparchitects.net

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Provided by West Hills Community College District enclosed

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NOTICE TO CONTRACTORS CALLING FOR BIDS
(CUPCCAA FORMAL BIDDING PROCEDURES; PUBLIC CONTRACT CODE §22037)

DISTRICT	WEST HILLS COMMUNITY COLLEGE DISTRICT
PROJECT DESCRIPTION	**Coalinga College- Dorm Plumbing Replacement**
PRE-BID MEETING AND JOB WALK	Non-Mandatory Date: Tuesday, April 28, 2026 Time: 10:00 AM Location: Gordon Hall Lobby
LATEST TIME/DATE FOR SUBMISSION OF BID PROPOSALS	Thursday, May 7, 2026 2:00 PM
LOCATION FOR SUBMISSION OF BID PROPOSALS	**Paper/Hard Copy Submittal:** West Hills Community College District District Office Lobby 275 Phelps Avenue Coalinga, California 93210
LOCATION FOR OBTAINING BID AND CONTRACT DOCUMENTS	District Purchasing website: https://westhillscollege.com/district/departments/business-services/purchasing/

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 **Coalinga College- Dorm Plumbing Replacement** ("the Work").

1. Submittal of Bid Proposals. All Bid Proposals shall be submitted to the District in sealed envelopes at or before the latest date/time for submitting Bid Proposals. Bid Proposals be submitted on forms issued by the District and must conform with, and be responsive to, the Bid and Contract Documents.

2. Bid and Contract Documents. The Bid and Contract Documents are available online at https://westhillscollege.com/district/departments/business-services/purchasing/. Addenda will be posted on this webpage; there will be no other distribution of addenda. Bidders are solely responsible for periodic checks of this webpage to obtain Addenda.

3. The Project and the Project Scope. HVAC Chiller line and Restroom plumbing replacement at Gordon Hall and Ivans Hall dorms, including misc. work.

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. The Contractor and all Subcontractors shall pay not less than the applicable prevailing wage rate for the classification(s) of labor provided by their respective workers; prevailing wage rates are available for review at http://www.dir.ca.gov/dlsr/statistics_research.html. During the Work, the Department of Industrial Relations ("DIR") will monitor compliance with prevailing wage rate requirements and enforce the Contractor's prevailing wage rate obligations.

6. Bidder and Subcontractors DIR Registered Contractor Status. 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 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. The foregoing notwithstanding, a Bid Proposal is not subject to rejection for non-responsiveness for listing Subcontractor(s) on the Subcontractors List who is/are not DIR Registered contractors if such Subcontractor(s) complete DIR Registration pursuant to Labor Code §1771.1(c)(1) or (2). If any listed Subcontractor(s) who is/are not DIR Registered contractors and such Subcontractor(s) do not become DIR Registered pursuant to Labor Code §1771.1(c)(1) or (2), but the Bidder, if awarded the Contract, must request consent of the District to substitute a DIR Registered Subcontractor for the non-DIR Registered Subcontractor pursuant to Labor Code §1771.1(c)(3), without adjustment of the Contract Price or the Contract Time.

7. Contractors' License Classification. The District requires that Bidders possess the following classification(s) of California Contractors License B - General Building Contractor. Any Bidder not so duly and properly licensed shall be subject to all penalties imposed by law. No payment shall be made for work, labor, materials or services provided under the Contract 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 to perform the Work.

8. Contract Time. The date(s) for completion of portions of the Work, if applicable, and for achieving Substantial Completion of the Work shall be achieved as set forth in the Agreement. Failure to complete designated portions of the Work within the time(s) established in the Agreement and/or failure to achieve Substantial Completion of the Work within the Contract Time established in the Agreement shall subject the Contractor to assessment of Liquidated Damages as set forth in the Special Conditions.

9. 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). If the required Bid Security is not submitted with the Bidder's Bid Proposal, the Bid Proposal may be considered non-responsive and may be rejected by the District.

   9.1. Electronic Submittal of Bid Proposals. If a Bid Proposal is submitted electronically, the bid security shall be submitted as set forth in Paragraphs 9.1.1.

      9.1.1. Cash, Cashiers/Certified Check. If Bid Security is in the form of cash or cashiers/certified check, the cash proceeds or cashiers/certified check must be submitted in a sealed envelope with the exterior prominently marked with the Bidder's name, Project Name and Bid Number to the District's Facilities Services Department before the latest date/time for submitting Bid Proposals. Bid Security received thereafter may result in rejection of the Bidder's Bid Proposal for non-responsiveness. The Facilities Services Department address is:

      West Hills Community College District
      Facilities and Procurement
      275 Phelps Avenue
      Coalinga, California 93210

   9.2. Paper/Hard Copy Submittal of Bid Proposal. Bid Security, in any form, shall be submitted concurrently with submittal of the Bid Proposal.

10. Alternate Bid Items. If the bidding includes Alternate Bid Items, each Bidder must propose pricing for each Alternate Bid Item. If Alternate Bid Items are included in the bidding, the District's selection of Alternate Bid Items for determination of the lowest priced Bid Proposal will be The lowest priced Bid Proposal shall be the lowest bid price proposed for the base contract without consideration of prices proposed for additive or deductive alternate items..

11. 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.

12. Job-Walk. The District will conduct a Non-MandatoryJob Walk on Tuesday, April 28, 2026 beginning at 10:00 AM Bidders are to meet at Gordon Hall Dorm Lobby for the Job Walk. 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.

13. Pre-Bid Inquiries. Bidders may submit pre-bid inquiries or clarification requests no later than 12:00 PM on May 1, 2026 before the latest date for submittal of Bid Proposals. Pre-bid inquiries or clarification requests shall be submitted to: AP Architects Attn: Jose Vargas – jvargas@aparchitects.net

14. Copies of Agreement and Bonds. The number of required executed copies of the Agreement are ONE (1) The number of required executed copies of the Performance Bond and the Labor & Materials Payment are ONE (1).

15. 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:

Friday, April 17, 2026 (Newspaper advertisement)
Wednesday, April 22, 2026 (Trade journals notice)

[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 may be non-responsive and may 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; or (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 at the place designated in the Call for Bids 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. Bidders are solely responsible for timely submission of Bid Proposals to the District at the place designated in the Call for Bids.

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. 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.

3. 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 may 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 may 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.

4. 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.

5. 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.

6. 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 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.

7. 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. 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.

8. 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.

9. 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.

10. 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. Failure of a Bidder to acknowledge addenda in its Bid Proposal may render the Bid Proposal non-responsive and rejected. **Addenda, if issued, will be available on the District's Purchasing Website: https://westhillscollege.com/district/departments/business-services/purchasing/.**

11. 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.

12. 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 may render the Bid Proposal non-responsive.

13. Designation of Subcontractors; Subcontractors List. In accordance with Public Contract Code §4104, the Subletting and Subcontracting Fair Practices Act (California Public Contract Code §§4100 et seq.), each Bidder shall submit, on the form of Subcontractors List included with the Contract

Documents, a list of its proposed Subcontractors for the proposed Work, including any Alternate Bid Items, who will perform/provide portions of the Work valued at or more than one-half (1/2) of one percent (1%) of the amount proposed by the Bidder for the Work. The Subcontractors List consists of five (5) columns, each of which requires the Bidder's disclosure of information relating to each listed Subcontractor. All columns of the Subcontractors List must be completed by the Bidder for each Subcontractor identified by the Bidder in its Subcontractors List submitted concurrently with the Bidder's Bid Proposal. Failure of a Bidder to comply with the foregoing may render the Bidder's Bid Proposal non-responsive and rejected.

13.1. Work of Subcontractors. All Bidders are referred to the Contract Documents and the notation therein that all Contract Documents are intended to be complimentary and that the organization or arrangements of the Specifications and Drawings shall not limit the extent of the Work of the Contract Documents. Accordingly, all Bidders are encouraged to disseminate all of the Specifications, Drawings and other Contract Documents to all persons or entities submitting sub-bids to the Bidder. The omission of any portion or item of Work from the Bid Proposal or from the sub-bidders' sub-bids which is/are necessary to produce the intended results and/or which are reasonably inerrable from the Contract Documents is not a basis for adjustment of the Contract Price or the Contract Time. Dissemination of the Contract Documents to sub-bidders and dissemination of addenda issued during the bidding process is solely the responsibility of each Bidder.

13.2. Subcontractor Bonds. Pursuant to California Public Contract Code §4108, if a Bidder requires a bond or bonds of its Subcontractor(s), whether the expense of procuring such bond or bonds are to be borne by the Bidder or the Subcontractor(s), such requirements shall be specified in the Bidder's written or published request for sub-bids. Failure of the Bidder to comply with these requirements shall preclude the Bidder from imposing bonding requirements upon its Subcontractor(s) or rejection of a Subcontractor's bid under California Public Contract Code §4108(b).

14. 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 Proposal or the Base Bid Proposal and Alternate Bid Items, if any, selected in accordance with these Instructions for Bidders.

15. Alternate Bid Items.

15.1. Selection. Selection of Alternate Bid Items for determining the lowest priced Bid Proposal shall be as set forth in the Call for Bids. The Bid Proposal of a Bidder will be rejected for non-responsiveness if the Bidder fails to submit the completed/executed Alternate Bid Items Proposal concurrently with the Bid Proposal.

15.2. Alternate Bid Items Not Included in Award of Contract. Bidders are referred to the provisions of the Contract Documents permitting the District, during performance of the Work, add or delete from the scope of the Work any or all of the Alternate Bid Items with the cost or credit of the same being the amount(s) set forth by the successful Bidder in its Alternate Bid Items Proposal.

16. Responsive/Responsible Bids.

16.1. Responsive Bid Proposal. A responsive Bid Proposal shall mean a Bid Proposal which conforms, in all material respects, to the Bid and Contract Documents.

16.2. Hearing re Rejected Bid. If a Bidder's bid is rejected by the District for responsiveness, but the Bidder contends that the basis of rejection is for responsibility, not responsiveness, the Bidder may request a responsibility hearing on that rejection: (i) if the District issues a notice of intent to award a contract to a Bidder whose bid is higher than the bid that was rejected; and (ii)

the Bidder strictly complies with the following provisions relating to time limitations for requesting a responsibility hearing. To be considered by the District, such a request for a responsibility hearing must be in writing and submitted to the District's Chief Business Officer and must be actually received by the District's Chief Business Officer by the earlier of: (i) 5:00 PM one (1) business day after the District's notice to the Bidder of the District's rejection of the Bidder's Bid Proposal; or (ii) 5:00 PM one (1) business day after the date of the District's notice of intent to award a contract. If a Bidder does not request a responsibility hearing in strict conformity with the foregoing, such Bidder shall be deemed to have knowingly and voluntarily waive rights to a hearing. The District will grant or deny such request for a hearing based on the holding of the California Court of Appeal in *Great West Contractors, Inc. v. Irvine Unified School District* (2010) 187 Cal. App. 4th 1425. If a Bidder timely requests a hearing pursuant to the foregoing, the District will notify such Bidder in writing by 5:00 PM two (2) business days after the date of the Bidder's request for hearing is submitted of the District grant or denial of such a hearing. If the District grants a hearing, the District will schedule the hearing for a date not less than three (3) business days after the date of such notice to the Bidder requesting a hearing. If the District holds such a hearing, any Bidder may at its own expense: i) be represented at the hearing by legal counsel; ii) record the proceedings by court reporter; iii) present oral and/or written statements and/or other documents.

16.3. Responsible Bidder.

16.3.1. Bidder Capacity. Factors affecting the Bidder's capacity to perform and complete the Work will be assessed, including: (i) Bidder's access to labor, materials and other resources necessary to complete the Work; (ii) Bidder's ability to complete the Work within the time established for completion of the Work, or portions thereof; and (iii) Bidder's ability to complete warranty obligations.

16.3.2. Bidder Character, Integrity. Factors reflecting the character and integrity of the Bidder, including: (i) other public agency finding/determination, within the past five (5) years, that the Bidder is not responsible; (ii) currently debarred from bidding public works projects or debarment from bidding within past five (5) years; and (iii) false claims liability within the past five (5) years under local, state or federal laws.

16.3.3. Bidder Financial Capability. Factors considered include: (i) sufficiency of the Bidder's financial resources; (ii) whether the Bidder is current in payment of debts and performance of other financial obligations; and (iii) bankruptcy or insolvency proceedings have been instituted within the past five (5) years.

16.3.4. Bidder Prior Performance. The Bidder's prior performance on prior public works contracts, including without limitation: (i) cost overruns; (ii) compliance with general conditions and other contractual requirements, including schedule development, schedule updates and coordination of labor, material/equipment procurements and subcontractors; (iii) completion within allocated time; (iv) submittal of unsubstantiated, unsupported or excessive cost proposals, claims or contract adjustment requests; (iv) completion of a project by a surety; (vi) owner's exercise of default remedies; and (vii) finding or determination by any public agency that the Bidder is not a responsible bidder.

16.3.5. Safety. Factors include: (i) findings of serious or willful safety violations of safety laws, regulations or requirements by any local, state or federal agency within the past five (5) years; (ii) adequacy and implementation of safety plans, programs for on-site and off-site construction and construction related activities; and (iii) Workers Compensation Insurance EMR rating exceeding 1.25.

17. Notice of Intent to Award Contract. 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.

18. Agreement and Bonds Upon Award of Contract. If the Bidder submitting a Bid Proposal is awarded the Contract, the Bidder 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: (i) the Performance Bond; (ii) the Labor and Material Payment Bond; (iii) the Certificate of Workers' Compensation Insurance; and (iv) the Drug-Free Workplace Certificate.. 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.

19. 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.

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. 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 within 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.

22. 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.

23. Non-Discriminatory Employment Practices. It is the policy of the District that there be no discrimination against any prospective or active employee engaged in the Work because of race, color, ancestry, national origin, religious creed, sex, age, marital status or other legally protected classification. All Bidders agree to comply with the District's non-discrimination policy and all applicable Federal and California anti-discrimination laws including but not limited to the California Fair Employment & Housing Act beginning with California Government Code §§ 12940 et seq. and California Labor Code § 1735. In addition, all Bidders agree to require like compliance by any Subcontractor employed by them on the Work of the Contract.

24. Sexual Harassment. It is the policy of the District to ensure that everyone complies with Education Code, Government Code, Title V of the Administrative Code, and all other related statues related to the prevention of Sexual Harassment. All Bidders agree to comply with the District's Sexual Harassment Prevention Program and all applicable Federal and California laws including but not limited to the California Fair Employment & Housing Act commencing with California Government Code §12950, *et seq.* In addition, all Bidders agree to require like compliance by any Subcontractor employed by them on the Work of the Contract.

25. 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.

26. Bid Protest.

26.1. Submittal of 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 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 Vice Chancellor of Business and Fiscal Services ("Vice Chancellor") not more than five (5) calendar days after the date of issuance of the District's Notice of Intent to Award the Contract; 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 creditable evidence. Any bid protest not conforming to the foregoing shall be rejected by the District as invalid.

26.2. District Review and Disposition of Bid Protest. Provided that a bid protest is filed in strict conformity with the foregoing, the Vice Chancellor or such individual(s) as may be designated by him/her ("Designee") will review and evaluate the basis of the bid protest. The Vice Chancellor or Designee shall provide the Bidder submitting the bid protest with a written statement concurring with or denying the bid protest ("Bid Protest Response"). The Bid Protest Response is deemed the final action of the District and not subject to appeal or reconsideration by any other employee or officer of the District or the Board of Trustees of the District. The issuance of the Bid Protest Response by the Vice Chancellor or the Designee is an express condition precedent to the institution of any legal or equitable 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 legal or equitable 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 therefrom. Each Bidder shall acknowledge in the Bid Proposal that the foregoing is a binding attorneys' fee agreement pursuant to Civil Code §1717 and shall be enforceable against the Bidder and the District.

[END OF SECTION]

BID PROPOSAL

PROJECT: Coalinga College- Dorm Plumbing Replacement ("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. Base Bid Price. The undersigned Bidder, having become familiarized with the Contract Documents and the local conditions affecting the performance or cost of to perform the Work, the Bidder proposes and agrees to perform the Work of the Contract Documents including, without limitation, providing and furnishing any and all of the labor, materials, tools, equipment and services necessary to perform all obligations under the Contract Documents for the sum of: _____ Dollars ($_____).

2. Alternate Bid Items. The Bidder's proposed pricing for each Alternate Bid Item, if any, are set forth in the accompanying form of Alternate Bid Items Proposal, Attachment B. Failure of a Bidder to propose pricing for each Alternate Bid Item set forth in the accompanying Alternate Bid Items Proposal, Attachment B, will result in the Bid Proposal being deemed non-responsive and rejected.

3. Addenda. The Bidder confirms that: (i) it has received and reviewed all Addenda issued by the District, if any, as set forth below; and (ii) that this Bid Proposal incorporates and is inclusive of, all items or other matters contained in all Addenda, if any, issued by or on behalf of the District. ***Failure of the Bidder to acknowledge all Addenda may result in rejection of the Bid Proposal for non-responsiveness.***

ADDENDUM NO.	ADDENDUM ISSUE DATE

4. Documents Accompanying Bid Proposal. The Bidder has submitted with this Bid Proposal the following:

   - Bid Proposal
   - Subcontractors List
   - Non-Collusion Affidavit
   - Bid Security in the form of (check one of the following):
     ☐Cash, Cashier's Check or Certified Check submitted with the Bid Proposal.
     ☐Paper hard copy Bid Bond submitted with the Bid Proposal.

   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 as non-responsive.
5. 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 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.
6. 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.
7. 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 attorneys' 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.
8. 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.
9.

Dated: _____

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

_____
(Typed or Printed Name)

Title: _____

ALTERNATE BID ITEMS PROPOSAL
BID PROPOSAL ATTACHMENT A

Project **Coalinga College- Dorm Plumbing Replacement**

Bidder Name: _____

Bidders must provide a proposal price for each Alternate Bid Item set forth herein; failure to do so will result in rejection of the Bid Proposal for non-responsiveness. The amount proposed for each Alternate Bid Item by the above-identified Bidder is set forth hereinbelow.

Alternate Bid Item No. 1. [DESCRIPTION]
Check one of the following and indicate the additive or deductive proposed price for the foregoing Alternate Bid Item.

☐ Add _____ Dollars ($_____) Bid Proposal Price.

☐ Deduct _____ Dollars ($_____) from Bid Proposal Price.

Alternate Bid Item No. 2. [DESCRIPTION]
Check one of the following and indicate the additive or deductive proposed price for the foregoing Alternate Bid Item.

☐ Add _____ Dollars ($_____) to Bid Bid Proposal Price.

☐ Deduct _____ Dollars ($_____) from Bid Proposal Price.

Alternate Bid Item No. 3. [DESCRIPTION]
Check one of the following and indicate the additive or deductive proposed price for the foregoing Alternate Bid Item.

☐ Add _____ Dollars ($_____) to Bid Proposal Price.

☐ Deduct _____ Dollars ($_____) from Bid Proposal Price.

Dated _____

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

_____
(Typed or Printed Name)

Title: _____

PRE-BID INQUIRY FORM

Project: **Coalinga College- Dorm Plumbing Replacement**
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)

SUBCONTRACTORS LIST

Project ("the Work")	**Coalinga College- Dorm Plumbing Replacement**
Bidder Name	_____
Bidder's Representative Signature	_____ (Signature) _____ (Typed or Printed Name)

Subcontractor Licensed Name	Address of Office, Mill or Shop	Trade or Portion of Work	Contractors' License No.	DIR Registration No.

[DUPLICATE THIS FORM FOR ADDITIONAL SUBCONTRACTORS]

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 **HVAC Chiller line and Restroom plumbing replacement at Gordon Hall and Ivans Hall dorms, including misc. work.**

1. The Bidder is submitting a Bid Proposal for **Coalinga College- Dorm Plumbing Replacement.**
2. The Bidder is currently registered as a contractor with the Department of Industrial Relations ("DIR").
3. The Bidder's DIR Registration Number is: _____. The expiration date of the Bidder's DIR Registration is _____, 20___.
4. 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.
5. The Bidder, if awarded the Contract for the Work will remain a DIR registered contractor for the entire duration of the Work.
6. The Bidder has independently verified that each Subcontractor identified in the Subcontractors List is a DIR registered contractor.
7. 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.
8. 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.
9. 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)

STATEMENT OF QUALIFICATIONS

PROJECT: Coalinga College- Dorm Plumbing Replacement

1. Bidder Information.

1.1. Contact Information

Mailing Address	_____ Bidder 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

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

Calendar Year/ Fiscal Year	Annual Gross Revenue	Annual Net Revenue	Average Dollar Value of all Contracts	Dollar Value of Largest Contract
2023 CY (2022/2023 FY)				
2024 CY (2023/2024 FY)				
2025 CY (2024/2025 FY)				

2. 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]

3. Insurance.

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

[CONTINUED NEXT PAGE]

4. 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 failure of the Bidder to meet minimum qualifications for the Work.

4.1. 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)

4.2. Bidder is currently a DIR Registered Contractor?

☐ Yes ☐ No (Not Qualified)

4.3. Bidder has a current commercial general liability insurance policy with coverage limits of at least $1,000,000 per occurrence and $2,000,000 in the aggregate.

☐ Yes ☐ No (Not Qualified)

4.4. 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

4.5. The Bidder is 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

4.6. A public agency, within the past five (5) years, has 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

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

☐ Yes (Not Qualified) ☐ No

4.8. During the past five (5) years a Surety has completed any project or the Bidder's obligations under a construction contract.

☐ Yes (Not Qualified) ☐ No

4.9. The Bidder's Worker's Compensation Insurance average EMR over the past five (5) years is more than 1.25.

☐ Yes (Not Qualified) ☐ No

Each Bidder must complete the following; failure to complete the following may result in rejection of the Bidder's Bid Proposal for non-responsiveness.

Current EMR	
Prior 12 Months EMR	
EMR Prior Months 13-24	
EMR Prior Months 25-36	
EMR Prior Months 37-48	
EMR Prior Months 49-60	

4.10. The Bidder (or the Bidder's predecessor-in-interest) has been subject one (1) or more CAL OSHA serious and willful violations (Labor Code §6300 et seq.) in the past five (5) years.

☐ Yes (Not Qualified) ☐ No

4.11. The Bidder has established a written Injury and Illness Prevention Program (IIPP) which conforms to IIPP requirements established in California Code of Regulations, Title 8, §3203.
☐ Yes ☐ No (Not Qualified)

4.12. Within the past two (2) years has your organization performed work on public works projects where the value of your work was at least $1,000,000?
☐ Yes ☐ No (Not Qualified)

4.13. Has your organization ever been assessed and paid liquidated damages under a construction contract with either a public or private owner?
☐ Yes (Not Qualified) ☐ No

4.14. Has your organization ever been denied an award of a public works contract based upon a finding by a public agency that your organization was not a responsible bidder?
☐ Yes (Not Qualified) ☐ No

4.15. Has any insurance carrier, for any policy of insurance, refused to renew an insurance policy for your organization?
☐ Yes (Not Qualified) ☐ No

4.16. During the past five (5) years, has a surety declined to issue a surety bond for your organization in connection with a construction project?
☐ Yes (Not Qualified) ☐ No

5. Experience and References. Using the forms and formats below, complete the following for similar projects, completed projects and projects in progress.

5.1. Similar Completed Projects. Provide the following for three (3) projects the Bidder has completed within the past five (5) years similar in size, scope, function and construction value as the Work:

Project Name	
Project Owner; Contact Information	
Function/Use of Project	
Original Contract Duration	
Actual Project Completion Duration	
Original Contract Price	
Final Adjusted Contract Price	

5.2. All Completed Projects. On a separate attachment, identify all projects the Bidder has completed within the past three (3) years, including the following information:

Project Name	
Project Owner; Contact Information	
Architect Name and Contact Information	
Original Contract Duration	
Actual Project Completion Duration	
Original Contract Price	

Final Adjusted Contract Price	

5.3. Projects In Progress. On a separate attachment, identify all projects the Bidder currently has in progress, including the following information:

Project Name	
Project Owner; Contact Information	
Architect Name and Contact Information	
Original Contract Duration	
Projected Completion Duration	
Original Contract Price	
Current Adjusted Contract Price	

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: _____

NON-COLLUSION AFFIDAVIT

STATE OF CALIFORNIA)
COUNTY OF _____)

PROJECT: **Coalinga College- Dorm Plumbing Replacement**

I, _____, being first duly sworn, deposes and says that I am the
(Typed or Printed Name)
_____ of _____, the party submitting the
(Title) (Bidder Name)

foregoing Bid Proposal ("the Bidder"). In connection with the foregoing Bid Proposal, the undersigned declares, states and certifies that:

1. The Bid Proposal is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization or corporation.
2. The Bid Proposal is genuine and not collusive or sham.
3. 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.
4. 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.
5. All statements contained in the Bid Proposal and related documents are true.
6. 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: _____

CERTIFICATE OF WORKERS' COMPENSATION INSURANCE

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

1. 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."
2. 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.
3. 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: _____

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; (ii) the availability of drug counseling, rehabilitation and employee-assistance programs; and (iii) 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: _____

AGREEMENT

THIS AGREEMENT is entered into as of Click here to enter a date. in the City of Coalinga, County of Fresno, State of California, by and between WEST HILLS COMMUNITY COLLEGE DISTRICT, a California Community College District hereinafter "District" and _____ ("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 **Coalinga College- Dorm Plumbing Replacement**. 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 8 of this Agreement, along with all modifications and addenda thereto issued in accordance with the Contract Documents. The Architect for the Work is AP Architects.

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 Sixty-Three (63) days after the commencement date of the Work set forth in the Notice to Proceed. The Contract Time shall be the number of days between the date specified for the commencement of the Work in the Notice to Proceed issued by or on behalf of the District the District and the calendar date specified in the Special Conditions for Project Substantial Completion. By executing this Agreement, the Contractor represents to the District that the Contract Time is reasonable for completion of the Work and the Contractor will fully complete the Work within the Contract Time, including any portions of the Work necessary to maintain the Construction Schedule and achieve Interim Milestones defined in the Special Conditions.

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 _____ Dollars ($_____). The District's payment of the Contract Price shall be in accordance with the Contract Documents. The Contract Price is based upon the Contractor's Base Bid Proposal, authorized Allowances and the following Alternate Bid Items, if any: _____.

4. **Allowances**. The Contractor and District acknowledge that the Contract Price set forth above includes an Allowance Amount in the aggregate amount of Thirty Thousand Dollars ($30,000.00), which is allocated as follows:

Allowance Description	Allowance Amount
Owners Allowance	$30,000.00

Although included in the Contract 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. Contractor shall submit cost data and other descriptive data to establish basis used by Contractor for determining costs associated with designated work attributable to each Allowance. Any Allowance amount not fully consumed shall belong solely to the District and shall be refunded to the District by a deductive change order. Should the Contractor's actual costs exceed the specified Allowance, the Contractor's Contract Price will be adjusted by change order in accordance with

Contract General Conditions, Article 9.5 of the Terms and Conditions.

5. **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.

6. **Insurance Minimum Coverage Limits**. Minimum coverage limits for the policies of insurance required of the Contractor are as follows:

Contractor Policy of Insurance	Minimum Coverage Limits
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)
Contractor's Pollution Liability	Per Occurrence: One Million Dollars ($1,000,000)
	Aggregate: Two Million Dollars ($2,000,000)
Builders Risk	Full Insurable Value of Work, (Without Seismic Coverage)

The minimum coverage limits for each required policy of insurance of each Subcontractor is as set forth below:

Subcontractors Policy of Insurance	Minimum Coverage Limits
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)
Contractor's Pollution Liability (As applicable, if Subcontractor's work involves SWPPP, the removal of asbestos, the removal/replacement of underground tanks or the removal of toxic chemicals and substances)	Per Occurrence: One Million Dollars ($1,000,000)
	Aggregate: Two Million Dollars ($2,000,000)

7. **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; (ii) loss of productivity; and/or (iii) 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.

8. **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:

00 01 00 Table of Contents
00 01 07 Certifications/Seals Page
00 01 12 DSA Form 103 Statement of Structural Tests & Inspections
00 11 13 Notice Calling for Bids, including Bid Addenda
00 21 13 Instructions for Bidders
00 31 13 Bid Time Project Schedule
00 41 00 Bid Proposal
00 42 23 Alternate Bid Items Proposal Form (Attachment A)
00 43 24 Pre-Bid Inquiry Form
00 43 36 Subcontractors List
00 45 10 Verification of Contractor and Subcontractors' DIR Registration
00 45 13 Statement of Qualifications
00 45 19 Non-Collusion Affidavit
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 40 Verification of Certified Payroll Submittal to Labor Commissioner
00 62 90 Asbestos and Other Hazardous Materials Certification
00 65 36 Guarantee Form
00 65 37 Contractor Certification of Subcontractor Claims
00 72 00 General Conditions
00 73 00 Special Conditions
00 73 00.1 Academic Calendar (Attachment A)

9. **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:
West Hills Community College District
Attention: Facilities Department
275 Phelps Avenue
Coalinga, CA 93210
meganvega@whccd.edu

If to the Contractor:
_____
_____
_____
_____

10. **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" **West Hills Community College District**	By: _____ _____

(Name Printed or Typed)

Title: _____

"CONTRACTOR"
[Contractor Name]

By: _____

_____
(Name Printed or Typed)

Title: _____

BID BOND

Contractors submitting a bid electronically are to follow the instructions in the "Notice to Contractors Calling for Bids" Section 9.1.

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 WEST HILLS 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 Coalinga College- Dorm Plumbing Replacement, HVAC Chiller line and Restroom plumbing replacement at Gordon Hall and Ivans Hall dorms, including misc. work.

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

[CONTINUED NEXT PAGE]

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 WEST HILLS 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 Coalinga College- Dorm Plumbing Replacement, HVAC Chiller line and Restroom plumbing replacement at Gordon Hall and Ivans Hall dorms, including misc. work.

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 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

[CONTINUED NEXT PAGE]

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.

_____
(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)

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 WEST HILLS 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 Coalinga College- Dorm Plumbing Replacement, HVAC Chiller line and Restroom plumbing replacement at Gordon Hall and Ivans Hall dorms, including misc. work.

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 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 Obligee 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 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)

VERIFICATION OF CERTIFIED PAYROLL RECORDS TO LABOR COMMISSIONER

PROJECT **Coalinga College- Dorm Plumbing Replacement**

I am the _____ for _____ in
(Superintendent/Project Manager) (Contractor)
connection with the above-referenced Project.

1. This Verification is submitted to the West Hills Community College District ("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").
2. The Pay Application requests the District's disbursement of a Progress Payment for the value of Work performed between _____, 20___ and _____, 20___.
3. 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 immediately preceding Pay Application.
4. All Subcontractors who are entitled to any portion of payment to be disbursed pursuant to the immediately preceding 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 immediately preceding Pay Application.
5. 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 immediately preceding Pay Application.
6. 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 immediately preceding Pay Application.

I declare under penalty of perjury under California law that the foregoing is true and correct. I executed this Verification on the ____ day of _____ 20___ at _____.
(City and State)

By: _____

_____
(Typed or Printed Name)

ASBESTOS AND OTHER HAZARDOUS MATERIALS CERTIFICATION

This Asbestos and Other Hazardous Materials Certification form is part of the Contract made by and between West Hills Community College District ("District") and _____ ("Contractor") for the work of improvement commonly referred to as **Coalinga College- Dorm Plumbing Replacement** (hereinafter referred to as the "Project").

To the best of my knowledge, information and belief, in completing the Work of the Project, no materials, equipment or other items furnished, installed or incorporated into the Project contains, or in itself be composed of, any asbestos, polychlorinated biphenyl (PCB), any material listed by the federal or state EPA or federal or state health agencies as a hazardous material, or defined as being hazardous under federal or state laws, rules or regulations.

The undersigned is duly authorized to complete, execute and submit this Asbestos and Other Hazardous Materials Certification on behalf of the Contractor. The undersigned has personal knowledge of the substantive representations set forth hereinabove or has made appropriate diligent inquiry to ascertain that the substantive representations set forth hereinabove are complete, true and accurate and do not omit material facts rendering such representations to be false or misleading.

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

Executed on this _____ day of _____, 20__ at _____.

By: _____

Signature

_____

Print Name

_____

Title

GUARANTEE

Project: **Coalinga College- Dorm Plumbing Replacement**

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 Name)

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

_____
(Printed Name and Title)

_____
(Date)

CONTRACTOR CERTIFICATION OF SUBCONTRACTOR CLAIM

TO: WEST HILLS COMMUNITY COLLEGE DISTRICT

RE: Coalinga College- Dorm Plumbing Replacement (Project)

_____
(Contractor Name)

_____
(Subcontractor Name)

This Contractor Certification of Subcontractor Claim is submitted by the above-identified Contractor to the District on behalf of the above-identified Subcontractor.

I am the _____ of the Contractor in connection with the above-described Project.
(Title)

The Subcontractor has submitted the accompanying Subcontractor Claim to the Contractor for presentation to the District pursuant to Public Contract Code §9204.

1. I have personally reviewed the entirety of the Subcontractor Claim and all substantiating documentation in support of the Subcontractor Claim.
2. The Subcontractor Claim is made by the Subcontractor in good faith.
3. The Subcontractor Claim is supported by reasonable documentation establishing entitlement to the relief requested and District liability therefor.
4. The Subcontractor Claim does not incorporate any request constituting a False Claim under applicable law, including the California False Claim Act (Government Code §12650 et. seq.).
5. I am authorized: (i) to execute this Certification on behalf of the Contractor; and (ii) to submit this Certification and the accompanying Subcontractor Claim to the District.
6. I have personal first-hand knowledge of all of the foregoing.

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

Executed at _____, California, on _____, 20___.

_____
(Signature)

_____
(Print Name)

_____
(Title)

GENERAL CONDITIONS

GENERAL CONDITIONS
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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. Contractor and Subcontractors. The Contractor is the entity or person identified as the Contractor in the Agreement. A Subcontractor is a person or entity who has a direct contract with a 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 Project Inspector 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. Drawings and Specifications. The District shall furnish the Contractor, without cost to the Contractor, the an electronic copy 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. 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.

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. Unless otherwise specified, Contractor shall allow up to 7 days review and response time for RFI's, however, Architect will endeavor to respond as timely as possible. 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. Temporary distributions of utilities at the Site as necessary for the Work, including utilities furnished by the District will be by the Contractor. The costs of utility services obtained by the Contractor and 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 under the Contract Documents is the attendance at meetings and conferences relating to the Work by the Contractor's supervisory personnel for the Work and the Contractor's management personnel as required by the Contract Documents or as requested by the District. The Contractor's personnel participating in conferences and meetings relating to the Work shall be authorized to act on behalf of the Contractor and to bind the Contractor. The Contractor is solely responsible for arranging for the attendance by Subcontractors, Material Suppliers at meetings and conferences relating to the Work as necessary, appropriate or as requested by the District.

4.4.1. Pre-Construction Conference. The Contractor's representatives (and representatives of Subcontractors as requested by the District) shall attend a Pre-Construction Conference at such time and place as designated by the District. The Pre-Construction Conference will generally address the requirements of the Work and Contract Documents, and to establish construction procedures. Subject matters of the Pre-Construction Conference will include as appropriate: (i) administrative matters, including an overview of the respective responsibilities of the District, Architect, Construction Manager, Contractor, Subcontractors, Project Inspector and others performing any part of the Work or services relating to the Work; (ii) Submittals; (iii) Changes and Change Order processing; (iv) employment practices, including Certified Payroll preparation and submission, prevailing wage rate responsibilities of the Contractor and Subcontractors, compliance with apprenticeship standards and Division of Labor Standards ("DSLE") monitoring and enforcement of prevailing wage rate requirements; (v) Progress Schedule development and maintenance; (vi) development of Schedule of Values and payment procedures; (vii) communications procedures, including the handling of Requests for Interpretation; (viii) conduct of pre-installation meetings to plan and coordinate work of new contractors, separate contractors and to plan for utility outages; (ix) emergency and safety procedures; (x) Site visitor policies; (xi) conduct of Contractor/Subcontractor personnel at the Site; (xii) punchlist/close-out procedures; and (xiii) Contractor and Subcontractor DIR Contractor Registration.

4.4.2. Progress Meetings. Progress meetings will be conducted on regular intervals (weekly unless otherwise expressly indicated elsewhere in the Contract Documents). The Contractor's representatives and representatives of Subcontractors (as requested by the District) shall attend Progress Meetings. Progress Meetings will be chaired by the Architect or the Construction Manager and will generally include as agenda items: Site safety, field issues, coordination of Work, construction progress and impacts to timely completion, if any. The purposes of the Progress Meetings include without

limitation: a formal and regular forum for discussion of the status and progress of the Work by all Project participants, a review of progress or resolution of previously raised issues and action items assigned to the Project participants, and reviews of the Construction Schedule and Submittals.

4.4.3. Pre-Installation Conference. The Contractor's representatives (and representatives of Subcontractors as requested by the District or the Construction Manager) shall attend a Pre-Installation Conference prior to the initiation of a new phase of Work or in connection with the delivery and installation of major items of equipment incorporated into the Work. Pre-Installation Conferences will generally address the requirements of the new phase of Work and Contract Documents, and/or to coordinate delivery and installation of major equipment items.

4.4.4. Special Meetings. As deemed necessary or appropriate by the District, Special Meetings will be conducted with the participation of the Contractor, Subcontractors and other Project participants as requested by the District.

4.4.5. Minutes of Meetings. Following conclusion of the Pre-Construction Conference, Progress Meetings and Special Meetings, the Architect or the Construction Manager will prepare and distribute minutes reflecting the items addressed and actions taken at a meeting or conference. Unless the Contractor notifies the Architect or the Construction Manager in writing of objections or corrections to minutes prepared hereunder within five (5) days of the date of distribution of the minutes, the minutes as distributed shall constitute the official record of the meeting or conference. No objections or corrections of any Subcontractor or Material Supplier shall be submitted directly to the Architect or the Construction Manager; such objections or corrections shall be submitted to the Architect and the 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 Progress 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 Baseline 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. Unless otherwise specified, Contractor shall allow up to 14 days review and response time, however, Architect will endeavor to respond as timely as possible. 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 if 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 5.3 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 Workers' Compensation Insurance as will protect the Contractor from claims under workers' or workmen's compensation, disability benefit and other similar employee benefit acts which are applicable to the Work to be performed, whether such operations be by the Contractor or by a Subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable. Contractor shall purchase and maintain 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. The Employer's Liability Insurance required of Contractor hereunder may be obtained by Contractor as a separate policy of insurance or as an additional coverage under the Workers' Compensation Insurance required to be obtained and maintained by Contractor hereunder. The limits of liability for the Employer's Liability Insurance required hereunder shall be as set forth in the Special Conditions.

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) contractual liability insurance applicable to the Contractor's obligations under the Contract Documents; and (vi) Completed Operations.

6.3. Contractor Pollution Liability Insurance. If required, the Contractor shall obtain Contractor Pollution Liability Insurance covering the Contractor's or appropriate subcontractor's liability for bodily injury, property damage and environmental damage resulting from sudden accidental and

gradual pollution and related cleanup costs incurred by Contractor, arising out of the Work (including transportation risk) of the Contract Documents.

6.4. Builder's Risk "All-Risk" Insurance. If required, the shall obtain a policy of Builders Risk insurance covering the full insurable value of the Work from the risks of loss, damage or destruction to the Work in progress or in place at the Site prior to Final Acceptance of the Work, including coverages for losses resulting from the perils of fire, malicious mischief and vandalism.

6.5. Insurance Policy Requirements. Each policy of insurance required by the Contract Documents to be obtained and maintained by the Contractor shall conform to the following requirements.

6.5.1. Minimum Coverage Limits. The insurance required of the Contractor hereunder shall be written for not less than coverage limits specified in the Contract Documents, or required by law, whichever is greater. In the event of any loss or damage covered by a policy of insurance required to be obtained and maintained by the Contractor hereunder, the Contractor shall be solely and exclusively responsible for the payment of the deductible, if any, under such policy of insurance, without adjustment to the Contract Price on account thereof.

6.5.2. Required Qualifications of Insurers. The Contractor and Subcontractors' policies of insurance will be accepted by the District only if the insurer(s) are: (i) A.M. Best rated A- or better; (ii) A.M. Best Financial Size Category VII or higher; and (iii) authorized under California law to transact business in the State of California and authorized to issue insurance policies in the State of California. If at any time during performance of the Work, the insurer(s) issuing a policy of insurance covering Commercial General Liability or Property/Casualty is/are not A.M. Best rated A- or better and is/are not A.M. Best Financial Size Category VII or higher, the Contractor or Subcontractor, as applicable shall within thirty (30) days of the District's written notice of the insufficiency of an insurer to the Contractor, obtain insurance coverage(s) from alternative insurer(s) who is/are then A.M. Best rated A- or better and who is/are A.M. Best Financial Size Category VII or higher. If the Contractor fails to deliver Certificate(s) of Insurance from an alternative insurer(s) meeting or exceeding the A.M. Best rating and A.M. Best Financial Size Category set forth above, within thirty (30) days of the date of the District's issuance of a written notice pursuant to the preceding sentence, in addition to any other right or remedy of the District under the Contract Documents or arising by operation of the Laws, the District may withhold disbursement of any Progress Payment otherwise due hereunder until the Contractor has delivered such Certificate(s) of Insurance from an alternative insurer(s).

6.6. Evidence of Insurance; Subcontractor's Insurance.

6.6.1. Certificates of Insurance. Prior to commencing the Work, Contractor shall deliver to the District Certificates of Insurance evidencing the insurance coverages required by the Contract Documents. Failure or refusal of the Contractor to so deliver Certificates of Insurance may be deemed by the District to be a default of a material obligation of the Contractor under the Contract Documents, and thereupon the District may proceed to exercise any right or remedy provided for under the Contract Documents or the Laws. The liability insurance policies required of Contractor hereunder shall also name the District, the Project Manager, and Architect as an additional insureds as their interests may appear. If any policy of insurance be canceled before Final Acceptance of the Work by the District and the Contractor fails to immediately procure replacement insurance as required, the District reserves the right to procure such insurance and to deduct the premium cost thereof and other costs incurred by the District in connection therewith from any sum then or thereafter due the Contractor

under the Contract Documents. The Contractor shall, from time to time, furnish the District, when requested, with satisfactory proof of coverage of each type of insurance required by the Contract Documents; failure of the Contractor to comply with the District's request may be deemed by the District to be a default of a material obligation of the Contractor under the Contract Documents.

6.6.2. Subcontractors' Insurance. The Contractor shall require that every Subcontractor, of any tier, performing or providing any portion of the Work obtain and maintain the policies of insurance set forth in Articles 6.1 and 6.2 of these General Conditions; the coverages and limits of liability of such policies of insurance to be obtained and maintained by Subcontractors shall be as set forth in the Contract Documents. The policies of insurance to be obtained and maintained by Subcontractors hereunder are in addition to, and not in lieu of, Contractor obtaining and maintaining such policies of insurance. Each of the policies of insurance obtained and maintained by a Subcontractor hereunder shall conform with the requirements of this Article 6. Upon request of the District, Contractor shall promptly deliver to the District Certificates of Insurance evidencing that the Subcontractors have obtained and maintained policies of insurance in conformity with the requirements of this Article 6. Failure or refusal of the Contractor to provide the District with Subcontractors' Certificates of Insurance evidencing the insurance coverages required hereunder is a material default of Contractor hereunder.

6.7. Maintenance of Insurance. Any insurance bearing on the adequacy of performance of Work shall be maintained after the District's Final Acceptance of all of the Work for the full one year correction of Work period and any longer specific guarantee or warranty periods set forth in the Contract Documents. Should such insurance be canceled before the end of any such periods and the Contractor fails to immediately procure replacement insurance as specified, the District reserves the right to procure such insurance and to charge the cost thereof to the Contractor. Nothing contained in these insurance requirements is to be construed as limiting the extent of the Contractor's liabilities or responsibility for payment of damages resulting from its operations or performance of the Work under the Contract Documents, including without limitation the Contractor's obligation to pay Liquidated Damages. In no instance will the District's exercise of its option to occupy and use completed portions of the Work relieve the Contractor of its obligation to maintain insurance required under this Article until the date of Final Acceptance of the entirety of the Work by the District, or such time thereafter as required by the Contract Documents.

6.8. Contractor's Insurance Primary. All insurance and the coverages thereunder required to be obtained and 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. To the extent that 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, Automobile and Workers Compensation 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 herein shall be included in the Contract Price.

6.9. Indemnity. 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 (collectively "Indemnity Claims") which arise out of the negligent, grossly negligent or willful 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) property damage; (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 sustained by the Indemnified Parties. If any action or proceeding is commenced on account of any Indemnity Claims, 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 timely and fully 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.

6.10. 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. Not more than five (5) days prior to the Contractor's anticipated commencement date for Construction Services at the Site, the Contractor shall prepare and submit to the District and the Construction Manager a Preliminary Construction Schedule indicating, in graphic form, the estimated rate of progress and sequence of all Work required under the Contract Documents. The Preliminary Construction Schedule shall be organized into

groupings by location, responsibility, specifications, sections, etc. The purpose of the Preliminary Construction Schedule is to assure adequate planning and execution of the Work so that it is completed within the Contract Time and to permit evaluation of the progress of the Work. Unless otherwise provided in the Contract Documents, the Construction Schedules required under this Article 7 shall; (i) be prepared utilizing scheduling software accepted in advance by the District; (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, completion of: foundation, building framing/structural elements, mechanical/electrical/plumbing rough-in, roofing, exterior doors and windows, interior finishes, etc.; (iii) indicate manpower and other resources required for completion of each Construction Schedule activity; (iv) indicate costs for completion of each Construction Schedule activity; (v) 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; (vi) indicate sequencing and interdependencies of activities. The Contractor may submit a Preliminary Construction Schedule depicting completion of the Work in a duration shorter than the Contract Time; provided that such Preliminary Construction Schedule shall not be a basis for adjustment to the Contract Price in the event that completion of the Work shall occur after the time depicted therein, nor shall such Preliminary Construction Schedule be the basis for any extension of the Contract Time, the Contractor's entitlement to any extension of the Contract Time shall be based upon the Contract Time and not on any shorter duration which may be depicted in the Contractor's Preliminary Construction Schedule. If the Construction Schedules required under this Article 7.3 incorporate therein any "float" time, such float shall be deemed to jointly belong to and owned by the District and the Contractor. As used herein, "float time" shall be deemed to refer to the time between earliest finish date and the latest finish date of each activity shown on the Construction Schedule. The Construction Schedule prepared by the Contractor shall not sequester float through float suppression techniques such as extending activity durations, using preferential logic, etc.

7.3.2. Review of Preliminary Construction Schedule. The District and the Construction Manager shall review the Preliminary Progress Schedule submitted by the Contractor pursuant to Article 7.3.1 above for conformity with the requirements of the Contract Documents. Within fifteen (15) days of the date of receipt of the Preliminary Progress Schedule, the Preliminary Construction Schedule will be returned to the Contractor with comments to the form or content thereof. Review of the Preliminary Progress Schedule and any comments thereto by the District and/or the Construction Manager shall not be deemed to be the assumption of construction means, methods or sequences by the District or the Construction Manager, all of which remain the Contractor's obligations under the Contract Documents.

7.3.3. Preparation and Submittal of Contract Construction Schedule. Within ten (10) days of the District's return of the Preliminary Construction Schedule to the Contractor pursuant to Article 7.3.2 above, the Contractor shall prepare and submit to the Construction Manager and the District the Construction Schedule, fully cost and resource loaded, which incorporates therein the comments to the Preliminary Construction Schedule. Upon the Contractor's submittal of such Construction Schedule, the District and the Construction Manager shall review the same for purposes of determining conformity with the requirements of the Contract Documents. Within fifteen (15) days of the receipt of the Construction Schedule, the District will accept such Construction Schedule or will return the same to the Contractor with comments to the form or content. In the event there are comments to the form or

content thereof, the Contractor, shall within seven (7) days of receipt of such comments, revise and resubmit the Construction Schedule incorporating therein such comments. Upon the District's acceptance of the form and content of a Construction Schedule, the same shall be deemed the "Accepted Construction Schedule". The District's acceptance of a Construction Schedule shall be for the sole and limited purpose of determining conformity with the requirements of the Contract Documents. By the Accepted Construction Schedule, the District shall not be deemed to have exercised control over, or approval of, construction means, methods or sequences, all of which remain the responsibility and obligation of the Contractor in accordance with the terms of the Contract Documents. Further, the Accepted Construction Schedule shall not operate to limit or restrict any of Contractor's obligations under the Contract Documents nor relieve the Contractor from the full, faithful and timely performance of such obligations in accordance with the terms of the Contract Documents. The activities, commencement and completion dates of activities, and the sequencing of activities depicted on the Accepted Construction Schedule shall not be modified or revised by the Contractor without the prior consent, or direction, of the District and the Construction Manager. Updates to the Accepted Construction Schedule pursuant to Article 7.3.5 below shall not be deemed revisions to the Accepted Construction Schedule. In the event that the Accepted Construction Schedule shall depict completion of the Work in a duration shorter than the Contract Time, the same shall not be a basis for an adjustment of the Contract Time or the Contract Price in the event that actual completion of the Work shall occur after such the time depicted in such Accepted Construction Schedule. In such event, the Contract Price shall not be subject to adjustment on account of any additional costs incurred by the Contractor to complete the Work prior to the Contract Time, as adjusted in accordance with the terms of the Contract Documents. Any adjustment of the Contract Time or the Contract Price shall be based upon the Contract Time set forth in the Contract Documents and not any shorter duration which may be depicted in the Accepted Construction Schedule.

7.3.4. Revisions to Accepted Construction Schedule. In the event that the progress of the Work or the sequencing of the activities of the Work shall materially differ 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 Construction Manager and the District a revised Accepted Construction Schedule, for review and acceptance by the District. The Contractor may request consent of the District to revise the Accepted Construction Schedule. Any such request shall be considered by the District only if in writing setting forth the Contractor's proposed revision(s) to the Accepted Construction Schedule and the reason(s) therefor. The District may grant, deny or condition consent to such request of the Contractor to revise the Accepted Construction Schedule in the District's sole reasonable discretion.

7.3.5. Updates to Accepted Construction Schedule. The Contractor shall monitor and update the Accepted Construction Schedule on a monthly basis, provide four-week rolling schedules on a weekly basis or more frequently as required by the conditions or progress of the Work, or as may be requested by the District. The Contractor shall provide the District and the Construction Manager with updated Accepted Construction Schedules indicating progress achieved and activities commenced or completed within the prior updated Accepted Construction Schedule. Updates to the Accepted Construction Schedule shall not include any revisions to the activities, commencement and completion dates of activities or the sequencing of activities depicted on the Accepted Construction Schedule. Any such revisions to the Accepted

Construction Schedule shall result in the District's rejection of such update and Contractor shall, within seven (7) days of the District's rejection of such update, submit to the Construction Manager and the District an Updated Accepted Construction Schedule which does not incorporate any such revisions. The Contractor shall also submit, with its updates to the Accepted Construction Schedule a narrative statement including a description of 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 the Accepted Construction Schedule, the Contractor shall indicate what measures will be taken to place the Work back on schedule. The District may, from time to time, and in the District's sole and exclusive discretion, transmit to the Contractor's Performance Bond Surety the Accepted Construction Schedule, any updates thereof and the narrative statement described hereinabove. The District's election to transmit, or not to transmit such information, to the Contractor's Performance Bond Surety shall not limit the Contractor's obligations under the Contract Documents.

7.3.6. Contractor Responsibility for Construction Schedule. The Contractor shall be responsible for the preparation, submittal and maintenance of the Construction Schedules required by the Contract Documents, and any failure of the Contractor to do so may be deemed by the District as the Contractor's default in the performance of a material obligation under Contract Documents. Any and all costs or expenses required or incurred to prepare, submit, maintain, and update the Construction Schedules shall be solely that of the Contractor and no such cost or expense shall be charged to the District. The Contract Price shall not be subject to adjustment on account of costs, fees or expenses incurred or associated with the Contractor's preparation, submittal, and maintenance or updating of the Construction Schedules.

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 Baseline 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 Notice to Proceed by Contractor, Contractor shall furnish, 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. Cost break down shall include, at a minimum, separate line items for bonds, insurance, general conditions, overhead and profit, mobilization, demobilization (if mobilization is itemized), submittals, allowance(s) if applicable, alternate(s) if applicable, LEED items if applicable, line items for major portions of work separated by trade/type (i.e. concrete, carpentry, etc.), punchlist/training and as-built drawings. Shop drawings shall be a separate line item and be assigned a minimum value of 2% of the prime contractors's contract value. All subcontractors with a contrct amount over $75,000 shall also sumit a proposed schedule of values in the same fomat.

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, or such other time established by the District, 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.

8.3.6.1. Materials or Equipment Not Delivered or Stored at the Site. No payments shall be made by the district for materials or equipment to be incorporated into the Work where such materials or equipment have not been delivered or stored at the Site. the foregoing notwithstanding, the District may, in its sole and exclusive discretion, elect to make payment for materials or equipment not incorporated into the Work and which are not delivered or stored at the Site at or prior to the time of the Contractor's submittal of an Application for Progress Payment incorporating therein a request for payment of such materials or equipment provided that each and all of the following have been complied with:(i) adequate arrangements, reasonably satisfactory to the District, have

been made by the Contractor to store and protect such materials or equipment which include without limitation, insurance reasonable satisfactory to the District, covering and protecting against the risk of loss, destruction, theft or other damage to such materials or equipment while in storage if coverage for the same is not afforded under the policy of Builder's Risk insurance obtained by the District pursuant to the Contract Documents; and (ii) the establishment of procedures reasonably satisfactory to the District by which title to such materials or equipment will be vested in the District upon the District's payment therefor. The Contractor acknowledges that the discretion to make, or not to make, payment for such material or equipment pursuant to the preceding sentence shall be exercised exclusively by the District; the District's exercise of discretion not to make payment for such materials or equipment shall not be deemed the District's default hereunder. In the event that the District shall elect to make payment for materials or equipment not at the Site, the costs and expenses incurred to comply with the requirements of (i) and (ii) of this Article 8.3.6.1 shall be borne solely and exclusively by the contractor and no payment shall be made by the District on account of such costs and expenses.

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 4.19.2 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 Payment 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 4.19.2 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 9.4.1or 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. The contract price includes an allowance, if applicable, in which overhead and profit was calculated; therefore, if a change is paid by allowance, overhead and profite shall not be calculated for such change.

9.4.3.1.1. Limitation to Field Labor and Prevailing Wage Rates. The Contract Price adjustment for labor necessary to complete a Change shall be limited to the laborers of the Contractor or Subcontractors actually and necessarily engaged in the performance of the Change and for which there is a prevailing wage rate classification. Wage rates for laborers shall not exceed the applicable prevailing wage rate in the locality of the Site for the classification(s) of labor necessary to complete a Change. Use of a prevailing wage rate classification which increases the costs of a Change shall not be allowed. Overtime labor charges for performing any part of the Change shall only be allowed if authorized in writing by the Architect, Construction Manager and the District prior to Contractor's performance of the overtime labor. Use of a labor classification which would increase labor costs associated with any Change shall not be permitted.

9.4.3.1.2. Payroll Taxes, Workers Compensation Premiums and Overhead. In addition to the "Total Hourly Rate" obtained from the appropriate California prevailing wage determination, which rate contains provision for all fringe benefits, the Contractor or Subcontractor may add to the Contract Price the actual cost of statutory payroll taxes and Worker's compensation insurance premiums paid on account of that worker classification and actually incurred by Contractor.

9.4.3.1.3. Excluded Labor Costs. The Contract Price adjustment for labor costs

on account of a Change shall exclude costs: (i) for preparing estimate(s) of the costs of the Change; (ii) to maintain records relating to the costs of the Change; (iii) for coordination and assembly of materials and information relating to the Change or performance thereof; (iv) to supervise, coordinate or manage the Work of a Change; or (v) any other general administrative overhead or general conditions costs associated with the Change or performance thereof as such costs are incorporated into the overhead and general conditions mark-up costs set forth in Article 9.4.4 and the Special Conditions.

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, including without limitation: impacts of any kind; preparation and processing of any and all related RFIs, ASIs, Bulletins, FCDs, Quotes, and/or CCDs; inefficiencies; delay; acceleration; field and home office overhead; and any and all other incidental costs for all of the work described in 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 two (2) years 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' 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.

14.3. Force Majeure. The Contractor and District are excused from performance during the time and to the extent that they are prevented from obtaining, delivering, or performing by act of God, pandemic, epidemic, Governmental Authority, state of emergency, fire, strike, loss, or shortage of transportation facilities, lock-out, commandeering of materials, products, plants or facilities by the government, when satisfactory evidence thereof is presented to the other party, provided that it is satisfactorily established that the non-performance is not due to the fault or neglect of the party not performing.
Should such an event take place which allows the Contractor and/or District to continue services under the agreement, Contractor will provide services following the recommendations, as well as description of mandatory safety and health standards, of the California Occupational Safety, Health Administration (Cal/OSHA), and District. Contractor shall also be responsible to monitor and follow Cal/OSHA, Center for Disease Control (CDC), Fresno County, and other applicable association guidelines and ordinances as it relates to the services provided.

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. Claims Resolution.

16.10.1. Public Contract Code §9204 Claims Resolution Procedures. Claims of the Contractor are subject to the non-binding dispute resolution procedures set forth in Public Contract Code §9204 ("Section 9204") provided, however, that the Section 9204 procedures are expressly subject to the Contractor's prior full and timely compliance with requirements and procedures of the Contract Documents relating to procedures for resolution of claims, change orders, disputes and other matters in controversy under the Contract Documents.

16.10.1.1. Claim Submittal and Documentation. Claims shall be submitted in strict compliance with Section 9204 submittal requirements and supported by documentation of: (i) contractual and legal basis establishing Claim entitlement or merit; (ii) factual basis for District liability for the Claim; (iii) detailed breakdown of labor, materials, equipment and other costs included in the Claim; and (iv) detailed basis, including Construction Schedule analysis and fragnets supporting any Contract Time adjustment or Liquidated Damages relief included in the scope of a Claim.

16.10.1.2. District Claim Review Statement. Within the time permitted by Section 9204 or such other time mutually agreed to by the District and the Contractor the District will review the Claim and provide the Contractor with a written statement ("Claim Review Statement") identifying the disputed and undisputed portions of the Claim ("Undisputed Claims" or "Disputed Claims"). If the District fails to provide the Claim Review Statement within the time permitted under Section 9204 or other time mutually agreed to by the District and the Contractor, the Claim is deemed rejected in its entirety and thereupon, the Contractor may initiate the Meet and Confer process described below.

16.10.1.3. Meet and Confer.

16.10.1.3.1. Meet and Confer Demand. Within the time permitted under Section

9204, the Contractor may demand an informal conference to meet and confer with the District for settlement of Disputed Claims identified in the Claim Review Statement ("Meet and Confer"). The Contractor's Meet and Confer request must be submitted to the District: (i) in writing; (ii) by registered mail or certified mail, return receipt requested; and (iii) within ten (10) days after the Claim Review Statement is submitted to the Contractor or within ten (10) days after the date the Claim is deemed rejected, as applicable. Failure of the Contractor to strictly comply with the foregoing is a waiver of the Contractor's right to request the Meet and Confer and the Non-Binding Mediation procedures under Section 9204. If the Contractor strictly complies with the foregoing, the District will schedule the Meet and Confer conference within thirty (30) days of the Contractor's Meet and Confer request.

16.10.1.3.2. Meet and Confer Statement. Within ten (10) business days after conclusion of the Meet and Confer conference, if any Disputed Claim remains, the District shall provide the Contractor a written statement identifying the Undisputed Claims and the Disputed Claims ("Meet and Confer Statement").

16.10.2. Non-Binding Mediation.

16.10.2.1. Contractor Initiation. The Contractor may request non-binding mediation ("Mediation") of Disputed Claims identified in the Meet and Confer Statement. The Contractor's Mediation demand must be submitted to the District: (i) in writing; (ii) by registered mail or certified mail, return receipt requested; (iii) within ten (10) days after the Meet and Confer Statement is submitted to the Contractor; and (iv) with specific identification of the Disputed Claims subject to Mediation. Failure of the Contractor to strictly comply with the foregoing is deemed a waiver of the Contractor's right to demand Mediation procedures under Section 9204.

16.10.2.2. Mediator Selection. The District and Contractor shall mutually agree to a mediator within ten (10) business days after the date of the Contractor's demand for Mediation. If the District and Contractor do not mutually agree to a mediator, the District and Contractor shall each select a mediator and the District/Contractor selected mediators shall select a qualified neutral third party to mediate the disputed portion of the Claim.

16.10.2.3. Mediation Procedures. Mediation includes any non-binding process, including, but not limited to, neutral evaluation or a dispute review board, in which an independent third party or board assists the District and Contractor in dispute resolution through negotiation or by issuance of an evaluation.

16.10.2.4. Mediation Costs. All costs, fees and expenses of the mediator(s) and mediation administration shall be shared equally by the District and Contractor. The foregoing notwithstanding, the Contractor and District shall each bear the costs, fees and expenses of their own attorneys, experts and consultants.

16.10.2.5. Post-Mediation Disputed Claims. Any Disputed Claims remaining after Mediation shall be resolved in accordance with the applicable provisions of the Contract Documents.

16.10.2.6. Waiver. The District and Contractor may mutually agree to waive, in writing, Mediation under Section 9204 and subject to the Contractor's compliance with Government Code Claim requirements, proceed directly to

commencement of a civil action or binding arbitration.

16.10.3. Payments of Undisputed Claims. If a payment due from the District for Undisputed Claims is not made within the time established under Section 9204, the overdue portion of such payment shall bear interest at the rate of seven percent (7%) per annum from the date due. The District's credit application of any amount due for an Undisputed Claim against amounts due to the District from the Contractor under the Contract Documents is deemed payment of the Undisputed Claim.

16.10.4. Subcontractor Claims.

16.10.4.1. Subcontractor Claim Submittal. If a Subcontractor lacks legal standing to assert a Claim against the District because privity of contract does not exist, the Contractor may present the District a Claim on behalf of the Subcontractor ("Subcontractor Claim"). Each Subcontractor requesting submittal of a Subcontractor Claim to the District shall furnish reasonable documentation to support the Subcontractor Claim. Procedures, requirements and time limits for submittal of Subcontractor Claims and processing of Subcontractor Claims shall be as set forth above for Contractor Claims, as augmented herein. Within forty-five (45) days of receipt of a Subcontractor's written request to submit a Subcontractor Claim, the Contractor shall notify the Subcontractor in writing as to whether the Contractor presented the Subcontractor Claim to the District. If the Contractor did not present the Subcontractor Claim, the Contractor shall provide the Subcontractor with a statement of the reasons for not having done so.

16.10.4.2. Contractor Certification of Subcontractor Claim. The District's review of Subcontractor Claims is expressly subject to the Contractor's submittal of a duly completed and executed form of Contractor Certification of Subcontractor Claim establishing that the Contractor has thoroughly reviewed the Subcontractor Claim and based on the Contractor's review, certify that: (i) the Subcontractor Claim is made by the Subcontractor in good faith; (ii) the Subcontractor Claim is supported by reasonable documentation establishing entitlement to the relief requested and District liability therefor; and (iii) the Subcontractor Claim does not incorporate any request constituting a False Claim under applicable law, including the California False Claim Act (Government Code §12650 et seq). The form of Contractor Certification of Subcontractor Claim is included in the Contract Documents. The District may summarily reject any Subcontractor Claim submitted without an accompanying duly completed and executed form of Contractor Certification of Subcontractor Claim.

16.10.4.3. District Review of Subcontractor Claim. Requests for District conduct of the Meet and Confer and/or non-binding mediation procedures must be submitted jointly by the Contractor and the Subcontractor submitting the Subcontractor Claim. If Mediation proceedings are initiated in connection with a Subcontractor Claim, mediator and mediation administration fees and costs shall be borne equally by the District, Contractor and Subcontractor.

16.10.4.4. Disputed Subcontractor Claims. Subcontractor Claims which are not fully resolved by the Section 9204 non-binding dispute resolution procedures shall be resolved by Section 20104.4 Dispute Resolution Procedures or binding arbitration, as applicable. Commencement of Section 20104.4 Dispute Resolution Procedures or binding arbitration proceedings in connection with any Subcontractor Claim is subject to compliance with

Government Code Claims requirements.

16.10.5. Government Code Claim Requirements. Pursuant to Government Code §930.6, any claim, demand, dispute, disagreement or other matter in controversy asserted by the Contractor, whether on behalf of itself or a Subcontractor, against the District for money or damages, including without limitation Disputed Claims remaining after completion of the Section 9204 non-binding dispute resolution procedures described above are deemed a "suit for money or damages" and shall be subject to the provisions of Government Code §§945.4, 945.6 and 946 ("Government Code Claims Process"). An express condition precedent to the Contractor's initiation of Section 20104.4 Dispute Resolution Procedures or binding arbitration proceedings is the Contractor's compliance with and exhaustion of the Government Code Clams Process, including without limitation, presentation of the claim, demand, dispute, disagreement or other matter in controversy between the Contractor and the District seeking money or damages to the District and acted upon or deemed rejected by the District in accordance with Government Code §900, et seq.

16.10.6. Section 20104.4 Dispute Resolution Procedures; Claims Less Than $375,000. Disputed Claims remaining after completion of the Section 9204 non-binding dispute resolution procedures and the Government Code Claims Process which are equal to or less $375,000 shall be resolved in accordance with the civil action procedures established in Public Contract Code §20104.4. Unless otherwise agreed to by the District and the Contractor in writing, the Mediation conducted pursuant to Section 9204 procedures shall excuse any further obligation under Section 20104.4 to mediate after litigation has been commenced.

16.10.7. Binding Arbitration of Claims Exceeding $375,000.

16.10.7.1. JAMS Arbitration. Any Disputed Claims after completion of the Section 9204 procedures and the Government Code Claims Process which exceed $375,000 and 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 Contract Documents, or the interpretation, clarification or enforcement thereof shall be resolved by binding arbitration conducted before a retired judge in accordance with the Construction Arbitration Rules and Procedures of Judicial Arbitration Mediation Services ("JAMS") in effect as of the date that a Demand for Arbitration is filed, except as expressly modified herein. The locale for any arbitration commenced hereunder shall be the regional office of the JAMS closest to the Site.

16.10.7.2. 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 shall a Demand for Arbitration be filed or served after the date when the institution of legal or equitable proceedings based upon such claim, dispute or other disagreement would be barred by the applicable statute of limitations. If more than one Demand for Arbitration is filed by either the District or the Contractor relating to the Work or the Contract Documents, all Demands for Arbitration shall be consolidated into a single arbitration proceeding, unless otherwise agreed to by the District and the Contractor. The Contractor's Surety, a Subcontractor or Material Supplier to the Contractor and other third parties may be permitted to join in and be bound by an arbitration commenced hereunder if required by the terms of their respective agreements with the Contractor, except to the extent that such joinder would unduly delay or complicate the expeditious resolution of the claim, dispute or other disagreement between the District and the Contractor, in which

case an appropriate severance order shall be issued by the Arbitrator(s).

16.10.7.3. Discovery. In connection with any arbitration proceeding commenced hereunder, the discovery rights and procedures provided for in California Code of Civil Procedure §1283.05 shall be applicable, and the same shall be deemed incorporated herein by this reference.

16.10.7.4. Arbitration Award. The award rendered by the Arbitrator(s) ("Arbitration Award") shall be final and binding upon the District and the Contractor only if the Arbitration Award is: (i) supported by substantial evidence; (ii) based on applicable legal standards in effect that the time the Arbitration Award is issued; and (iii) supported by written findings of fact and conclusions of law in conformity with California Code of Civil Procedure §1296. Any Arbitration Award that does not conform to the foregoing is invalid and unenforceable. The District and Contractor hereby expressly agree that the Court shall, subject to California Code of Civil Procedure §§1286.4 and 1296, vacate the Arbitration Award if, after review, the Court determines either that the Arbitration Award does not fully conform to the foregoing. The confirmation, enforcement, vacation or correction of an arbitration award rendered hereunder shall be made by the Superior Court of the State of California for the county in which the Site is situated. The substantive and procedural rules for such post-award proceedings shall be as set forth in California Code of Civil Procedure §1285 et seq.

16.10.7.5. Arbitration Fees and Expenses. The expenses and fees of the Arbitrator(s) shall be divided equally among all of the parties to the arbitration. Each party to any arbitration commenced hereunder shall be responsible for and shall bear its own attorneys' fees, witness fees and other costs or expenses incurred in connection with such arbitration. The foregoing notwithstanding, the Arbitrator(s) may award arbitration costs, including Arbitrators' fees but excluding attorneys' fees, to the prevailing party.

16.10.7.6. Limitation on Arbitrator. The Superior Court for the State of California for the County in which the Project Site is situated has the sole and exclusive jurisdiction, and an arbitrator has no authority, to hear and/or determine a challenge to the commencement or maintenance of an arbitration proceeding on the grounds that: (i) the subject matter of the arbitration proceeding is barred by the applicable statute of limitations; (ii) the subject matter of the arbitration proceeding is barred by a provision of the California Government Claims Act; (iii) the subject matter of the arbitration proceeding is outside the scope of the arbitration clause; (iv) the Contractor has failed to satisfy all conditions precedent to commencement or maintenance of ab arbitration proceeding; (v) waiver of the right to compel arbitration; (vi) grounds exist for the revocation of the arbitration agreement; and/or, (vii) there is the prospect that a ruling in arbitration would conflict or potentially with a ruling in a pending proceeding regarding the Project on a common issue of law or fact.

16.10.7.7. Inapplicability to Bid Bond. The arbitration proceedings described above are not applicable to disputes, disagreements or enforcement of rights or obligations under the Bid Bond. All claims, disputes and actions to enforce rights or obligations under the Bid Bond shall be adjudicated only by judicial proceedings commenced in a court of competent jurisdiction.

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: **Coalinga College- Dorm Plumbing Replacement**.

2. District Contract Documents to Contractor. Pursuant to Article 2.1.2 of the General Conditions, the District will, without charge or cost, provide one (1) set(s) of the Contract Documents in electronic PDF format to the Contractor.

3. Liquidated Damages. The Contractor is subject to assessment of Liquidated Damages as follows:

   3.1. Liquidated Damages for Delayed Project Substantial Completion. If a Contractor fails or refuses, for any reason, to achieve Substantial Completion of the Work within the Contract Time, the Contractor will be assessed Liquidated Damages in the amount of One Thousand Dollars ($1,000.00) per day from expiration of the Contract Time until Substantial Completion is achieved.

   3.2. Liquidated Damages for Delayed Completion of Punchlist Items. If the Contractor does not complete Punchlist Items noted upon Substantial Completion within the time established pursuant to the Contract Documents, the Contractor shall be assessed Liquidated Damages in the amount of Two Hundred and Fifty Dollars ($250.00) per day from the date established for completion of all Punchlist Items until all Punchlist Items are actually completed.

   3.3. District Withhold of Liquidated Damages; Performance Bond Surety. If a Contractor is subject to assessment of Liquidated Damages pursuant to the foregoing, the District may withhold such assessments from the Contractor Price then or thereafter due the Contractor. If the assessment of Liquidated Damages exceeds the then remaining balance of the Contract Price due the Contractor, the Contractor and the Surety issuing the Performance Bond shall be jointly and severally liable to the District for Liquidated Damages liability of the Contractor which exceeds the remaining Contract Price balance.

4. Construction Manager. The Construction Manager is _____.

5. District Furnished Drawings and Specifications. Pursuant to Article 2.1.2 of the General Conditions, the District will furnish to the Contractor for use solely and exclusively in connection with performance of the Work an electronic copy of the Drawings and Specifications. Additional copies of the Drawings and Specifications may be reproduced by the Contractor at its cost and expense or may be obtained by the Contractor from the District at the cost of the District's cost of reproduction plus ten percent (10%).

6. Hours and Days of Work at the Site.

   6.1. 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 – 5pm Mondays through Fridays, except for holiday days.

   6.2. 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.

7. Facilities for the Project Inspector. 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 identified on Attachment B. All costs, fees, expenses or other charges for the following are included within the Contract Price.. 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.

8. 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.

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 utility services and a point of connection for no utility services. If the District provides any utility services: (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. Temporary distributions of District provided utility services at the Site will be by the Contractor without adjustment of the Contract Price or the Contract Time. Except for the District provided utility services and extent of temporary distributions thereof, each Contractor is responsible, without adjustment of the Contract Price or Contract Time for securing all utilities and utility services necessary for completion of the Work.

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. Please use Attachment C to Special Conditions for all Proposed Cost Changes.

    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 Ten Percent

(10%). 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 Two Percent (2%) 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. 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 timely preparing all materials necessary for DSA review and approval of Deferred Approval Items without adjustment of the Contract Time or the Contract Price.

ACADEMIC CALENDAR
(Attachment A to Special Conditions)

FORMULA FOR PROPOSED COST CHANGE
(Attachment C to Special Conditions)

	PRIME CONTRACTOR (Work self-performed by Prime Contractor)		Amount
1.	Labor	Attach itemized hours and rates. Rates per prevailing scale of work classifications, including Fringe Benefits.	_____
2.	Labor Burden	Add Prime's actual Liability and Property Damage Ins., Worker's Comp. Ins., Social Security, Unemployment Taxes, not to exceed **30%** of Item 1.	_____
3.	Material	Attach actual, itemized quantity and unit cost excluding sales tax.	_____
4.	Equipment	Attach invoices.	_____
5.	Subtotal (cost only)	Subtotal of Items 1, 2, 3 & 4.	_____
6.	O&P	Add Prime's Overhead & Profit, not to exceed **15%** of Item 5.	_____
7.	Sales Tax	Add sales tax for item 3. Material	_____
8.	Subtotal	Subtotal of Items 5, 6 & 7.	_____
	SUBCONTRACTOR (Work performed by a Subcontractor)		
9.	Labor	Attach itemized hours and rates. Rates per prevailing scale of work classifications, including Fringe Benefits	_____
10.	Labor Burden	Add Prime's actual Liability and Property Damage Ins., Worker's Comp. Ins., Social Security, Unemployment Taxes, not to exceed **30%** of Item 9.	_____
11.	Material	Attach actual itemized quantity and unit cost excluding sales tax.	_____
12.	Equipment	Attach invoices.	_____
13.	Subtotal (cost only)	Subtotal of Items 9, 10 11 & 12	_____
14.	O&P	Add Subcontractor's Overhead & Profit to portions performed by Subcontractor, not to exceed **10%** of Item 13.	_____
15	Sales Tax	Add sales tax for item 11. Material	_____
16.	Subtotal	Subtotal of Items 13, 14 and 15.	_____
17.	Prime's O&P	If any work is performed by Subcontractors, add Prime's Overhead & Profit, not to exceed **5%** of Item 16.	_____
18.	Subtotal	Subtotal of Items 16 & 17	_____

COMBINED TOTALS

19.	SUBTOTAL	Items 8 & 18.	_____
20.	BOND	Actual Bond Cost, not to exceed **2%** of Item 19.	_____
21.	TOTAL	Items 19 and 20	_____

CONDITIONAL WAIVER AND RELEASE ON PROGRESS PAYMENT

NOTICE: THIS DOCUMENT WAIVES THE CLAIMANT'S LIEN, STOP PAYMENT NOTICE, AND PAYMENT BOND RIGHTS EFFECTIVE ON RECEIPT OF PAYMENT. A PERSON SHOULD NOT RELY ON THIS DOCUMENT UNLESS SATISFIED THAT THE CLAIMANT HAS RECEIVED PAYMENT.

Identifying Information

Name of Claimant: _____

Name of Customer: _____

Job Location: _____

Owner: _____

Through Date: _____

Conditional Waiver and Release

This document waives and releases lien, stop payment notice, and payment bond rights the claimant has for labor and service provided, and equipment and material delivered, to the customer on this job through the Through Date of this document. Rights based upon labor or service provided, or equipment or material delivered, pursuant to a written change order that has been fully executed by the parties prior to the date that this document is signed by the claimant, are waived and released by this document, unless listed as an Exception below. This document is effective only on the claimant's receipt of payment from the financial institution on which the following check is drawn:

Maker of Check:_____

Amount of Check: $_____

Check Payable to:_____

Exceptions

This document does not affect any of the following:

(1) Retentions.

(2) Extras for which the claimant has not received payment.

(3) The following progress payments for which the claimant has previously given a conditional waiver and release but has not received payment: _____
Date(s) of waiver and release: _____
Amount(s) of unpaid progress payment(s): $_____

(4) Contract rights, including (A) a right based on rescission, abandonment, or breach of contract, and (B) the right to recover compensation for work not compensated by the payment.

Signature

Claimant's Signature: _____

Claimant's Title: _____

Date of Signature: _____

UNCONDITIONAL WAIVER AND RELEASE ON PROGRESS PAYMENT

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

Identifying Information

Name of Claimant: _____

Name of Customer: _____

Job Location: _____

Owner: _____

Through Date: _____

Unconditional Waiver and Release

This document waives and releases lien, stop payment notice, and payment bond rights the claimant has for labor and service provided, and equipment and material delivered, to the customer on this job through the Through Date of this document. Rights based upon labor or service provided, or equipment or material delivered, pursuant to a written change order that has been fully executed by the parties prior to the date that this document is signed by the claimant, are waived and released by this document, unless listed as an Exception below. The claimant has received the following progress payment: $_____

Exceptions

This document does not affect any of the following:

(1) Retentions.

(2) Extras for which the claimant has not received payment.

(3) Contract rights, including (A) a right based on rescission, abandonment, or breach of contract, and (B) the right to recover compensation for work not compensated by the payment.

Signature

Claimant's Signature: _____

Claimant's Title: _____

Date of Signature: _____

CONDITIONAL WAIVER AND RELEASE ON FINAL PAYMENT

NOTICE: THIS DOCUMENT WAIVES THE CLAIMANT'S LIEN, STOP PAYMENT NOTICE, AND PAYMENT BOND RIGHTS EFFECTIVE ON RECEIPT OF PAYMENT. A PERSON SHOULD NOT RELY ON THIS DOCUMENT UNLESS SATISFIED THAT THE CLAIMANT HAS RECEIVED PAYMENT.

Identifying Information

Name of Claimant: _____

Name of Customer: _____

Job Location: _____

Owner: _____

Through Date: _____

Conditional Waiver and Release

This document waives and releases lien, stop payment notice, and payment bond rights the claimant has for labor and service provided, and equipment and material delivered, to the customer on this job. Rights based upon labor or service provided, or equipment or material delivered, pursuant to a written change order that has been fully executed by the parties prior to the date that this document is signed by the claimant, are waived and released by this document, unless listed as an Exception below. This document is effective only on the claimant's receipt of payment from the financial institution on which the following check is drawn:

Maker of Check: _____

Amount of Check: $_____

Check Payable to: _____

Exceptions

This document does not affect any of the following:

Disputed claims for extras in the amount of: $_____

Signature

Claimant's Signature: _____

Claimant's Title: _____

Date of Signature: _____

UNCONDITIONAL WAIVER AND RELEASE ON FINAL PAYMENT

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

Identifying Information

Name of Claimant: _____

Name of Customer: _____

Job Location: _____

Owner: _____

Through Date: _____

Unconditional Waiver and Release

This document waives and releases lien, stop payment notice, and payment bond rights the claimant has for all labor and service provided, and equipment and material delivered, to the customer on this job. Rights based upon labor or service provided, or equipment or material delivered, pursuant to a written change order that has been fully executed by the parties prior to the date that this document is signed by the claimant, are waived and released by this document, unless listed as an Exception below. The claimant has been paid in full.

Exceptions

This document does not affect any of the following:
Disputed claims for extras in the amount of: $_____

Signature

Claimant's Signature: _____

Claimant's Title: _____

Date of Signature: _____

SECTION 011000 - SUMMARY OF WORK

02/15/23

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division 0 & 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes, but not limited to the following:

1. Project information.
2. Work covered by Contract Documents.
3. Phased construction.
4. Work by Owner.
5. Work under separate contracts.
6. Future work.
7. Purchase contracts.
8. Owner-furnished products.
9. Contractor-furnished, Owner-installed products.
10. Access to site.
11. Coordination with occupants.
12. Work restrictions.
13. Specification and drawing conventions.
14. Miscellaneous provisions.

B. Related Requirements:

1. Division 1 Section 012100 “Allowances”: for purchase contracts.
2. Division 1 Section 015000 "Temporary Facilities" for limitations and procedures governing temporary use of Owner's facilities.

1.3 PROJECT INFORMATION

A. Project Identification:

Dorm Plumbing Replacement
Coalinga College
300 W Cherry Ln,
Coalinga, CA 93210

B. Owner:

West Hills Community College District
275 Phelps Ave,
Coalinga CA 93210

C. Architect:

AP Architects
Jose Vargas – Project Manager
3434 Truxtun Avenue Suite 240,
Bakersfield CA 93301

D. Architect's Consultants: The Architect has retained the following design professionals who have prepared designated portions of the Contract Documents:

BME HVAC
Keith Brummel
444 Higuera Street
San Luis Obispo, CA 93401

1.4 WORK COVERED BY CONTRACT DOCUMENTS

A. The Work consists of the HVAC Chiller line and Restroom plumbing replacement at Gordon Hall and Ivans Hall dorms, including misc. work.

E. Type of Contract:

1. Project will be constructed under a single prime contract.

1.5 WORK SEQUENCE

A. The Work will be conducted in one phase to provide the least possible interference to the activities of the Owner's personnel and to permit an orderly transfer of personnel and equipment to the new facilities. Project completion is scheduled for specific number calendar days, (refer to Bid Proposal). Contractor shall review scope of work, and provide manpower, resources, etc., as required to complete project on or before the date required for project completion. Contractor shall allow in Proposal weekend workers, shifts of workers and additional productivity not limited to workers, materials, temporary facilities and equipment as required to meet project schedule with limited access times as indicated herein.

1.6 CONTRACTOR USE OF PREMISES

A. General: Limit use of the premises to construction activities in areas indicated; allow for Owner occupancy and use by the public.

1. Confine operations to areas within Contract limits indicated. Portions of the site beyond areas in which construction operations are indicated are not to be disturbed.
2. Keep driveways and entrances serving the premises clear and available to the Owner and the Owner's employees at all times. Do not use these areas for parking or storage of materials. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on site.
3. When performing new construction on existing sites, become informed and take into specific account the maturity of the students on the site, and perform work which may interfere with educational facility routine before or after facility hours; enclose the work area with a substantial barricade and arrange work to cause a minimum of inconvenience and danger to students and staff in their regular facility activities.

B. Use of the Existing Building: Maintain the existing buildings in a weathertight condition throughout the construction period. Repair damage caused by construction operations. Take all precautions necessary to protect the building and its occupants during the construction period.

1. Use of Existing Elevator: The Contractor will be permitted to use the elevator for freight service only during the construction period. This elevator must also be available to the Owner at all times; coordinate usage with the Owner's representative. Provide protective pads for the cab and other appropriate protective measures for the car and entrance doors and frames. At the end of construction, restore the elevator to its original condition; deliver protective pads to Owner M/O Department.

1.7 OWNER OCCUPANCY

A. Partial Owner Occupancy: The Owner reserves the right to occupy and to place and install equipment in completed areas of the building, prior to Notice of Completion provided that such occupancy does not interfere with completion of the Work. Such placing of equipment and partial occupancy shall not constitute acceptance of the total Work.

1. Prior to partial Owner occupancy, mechanical and electrical systems shall be fully operational. Required inspections and tests shall have been successfully completed. Upon occupancy the Owner will provide operation and maintenance of mechanical and electrical systems in occupied portions of the building.

1.8 WORK RESTRICTIONS:

A. Work Restrictions, General: Comply with restrictions on construction operations.

1. Comply with limitations on use of public streets and other requirements of authorities having jurisdiction.
2. Smoking is not permitted within the building or within 25 feet (8 m) of entrances, operable windows, or outdoor air intakes.
3. Use of controlled substances on the Project site is not permitted.

B. On-Site Work Hours: Limit work in the existing building to normal business working hours of 7:00 a.m. to 5:00 p.m., Monday through Friday, except as otherwise indicated.

1. Weekend Hours: As permitted by Owner.
2. Early Morning Hours: As permitted by Owner.
3. Hours for Utility Shutdowns: Arranged and agreed to advance shutdown with Owner.

C. Construction work that generates noise beyond 90db that will disturb adjacent areas shall be scheduled around class schedule and office hours of occupied rooms within 125 feet of work to be done. This work may have to be done during after hours, evenings and Contractor shall verify class schedules when work will generate noise beyond 90db.

D. Deliver materials to the building area over the route designated by the facility Maintenance and Operations department. Times of deliveries shall coincide not to be done during 5 minutes before class change time between classes and 5 minutes after if said deliveries path is thru any area students will occupy during class change times. If a

delivery is overlapping class change times, cease work, provide temporary barricades and resume 5 minutes after classes resume.

PART 2 - PRODUCTS (Not applicable).

PART 3 - EXECUTION (Not applicable).

END OF SECTION 011000

SECTION 012100 - ALLOWANCES 04/16/15

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division 0 &1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section specifies administrative and procedural requirements governing handling and processing allowances.

1. Selected materials, services, equipment, related items and in some cases, their installation and related/non-related work are shown and specified in the Contract Documents by allowances herein. Allowances have been established in lieu of additional requirements and to defer selection of actual materials, miscellaneous additional work scope and equipment to a later date when additional information is available for evaluation.
2. Special allowances have been established for unforeseen conditions, latent conditions and related item to be authorized by the Architect for use.

B. Types of allowances required include the following:

1. Lump sum allowances in Base Bid.

C. Related Requirements:

1. Division 1 Section "Modification Procedures" for procedures for submitting and handling Change Orders.
2. Division 1 Section “Summary of Work” for additional requirements on purchase contracts.

1.3 SUBMITTALS

A. Submit proposals for purchase of products or systems included in allowances, in the form specified for Change Orders.

B. Submit invoices or delivery slips to indicate actual quantities of materials delivered to the site for use in fulfillment of each allowance.

1.4 ALLOWANCES

A. Use the allowance only as directed for the Owner's purposes, and only by Supplementary Instructions, which designate amounts to be charged to the allowance.

1. The direct costs for products or equipment ordered by the Owner under the lump sum allowances, including delivery, installation, taxes, and similar costs are part of the allowance. Vendor shall provide insurance as required by the Owner. Contractor shall agree to accept insurance required by Owner for vendor for allowance item. If the contractor requires any special insurance, additional requirements and or bonding of any allowance vendor, contractor shall allow for this cost in his base bid or alternate bid if allowance is tied to an alternate.

a. In the event the work under allowance cannot be completed during the duration of the project as prescribed under “Project Summary”, contractor may elect to request additional extended overhead. Extended overhead will be determined by actual costs incurred by contractor specific to this project and verified by project schedule.

2. Supplementary Instructions (SI) authorizing use of funds from the lump sum allowance will not include the Contractor's related costs and reasonable overhead, supervision, profit margins and other related costs as these costs are already in the contractor’s proposal/bid.
3. If any individual allowance contains surplus funds or contains deficient funds, Architect may transfer funds between allowances as necessary.
4. At Project closeout, credit unused amounts remaining in the allowance to Owner by Negative Change Order amount for unused amounts.
5. The contractor shall include in his base bid all overhead, profit, supervision, bonds, insurance and all other indirect costs for allowance items. None of these items will be added to lump sum and miscellaneous allowance as it is used by the Owner and directed by the architect. In the event the allowance is required in an Alternate, the contractor shall include in his alternate bid all overhead, profit, supervision, bonds, insurance and all other indirect costs for allowance items specific to that alternate.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

3.1 INSPECTION

A. Inspect products covered by an allowance promptly upon delivery for damage or defects.

3.2 PREPARATION

A. Coordinate materials and their installation for each allowance with related materials and installations to ensure that each allowance item is completely integrated and interfaced with related construction activities.

B. Coordinate scheduling of Owner selected Vendors. Obtain availability schedules from Vendors early in project to coordinate timing of special milestones and products necessary for implementation into overall construction activities.

3.3 SCHEDULE OF BASE BID ALLOWANCES

A. Allowance No. 1: Include a lump sum allowance of $30,000.00 for use upon the Owner’s instructions.

END OF SECTION 012100

SECTION 012600 - MODIFICATION PROCEDURES

11/01/16

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division 0 & 1 Specification sections, apply to this section.

1.2 SUMMARY

A. This section specifies administrative and procedural requirements for handling and processing Contract modifications.

1.3 MINOR CHANGES IN THE WORK and REQUEST FOR INFORMATION (RFI)

A. Supplemental instructions authorizing minor changes in the Work, not involving an adjustment to the Contract Sum or Contract Time, will be issued by the Architect. The Architect may issue written Supplemental Instructions, (SI), which interpret the Contract Documents or which order minor changes in the work without change in Contract sum or Contract time. The Contractor shall carry out such Supplemental Instructions promptly.

1. Unless otherwise noted, SI, (Supplemental Instructions) does not warrant a cost or time impact to the Contract cost or time. If Contractor does not agree, Contractor has 10 calendar days from date of receipt of SI to file a claim for adjustment in writing to the architect.
2. The Architect shall use SI's for written order for usage of allowance funds for project if any allowances are indicated.

B. Contractor shall be able to ask valid questions concerning items required to construct project. This shall be done by the following methods in order as follows: (1) Contractor to review plans and determine if information is prescribed therein; (2) Contractor to review question with Project Inspector and determine if information is indicated, intended and/or prescribed in construction documents; (3) Contractor place an informal inquiry with architect and discuss question: and if no answer is determined then (4) Contractor shall prepare a Request for Information (RFI) and deliver to architect for determination of answer and or direction from architect as prescribed herein.

1. Contractor shall submit Request for Information (RFI) on enclosed form at end of this Section.
2. Contractor shall attach to RFI what they consider to be answer to Request for Information. Failure to provide this information shall be grounds for Architect to Request for Clarification.
3. An RFI is defined as a request for information for information that cannot be found in the construction documents and related submittals. Items not considered RFI's are as follows:

   a. A request for a proposed alternative materials, products or colors.
   b. Substitutions.
   c. Coordination of Contractor changed/initiated field conditions.

1.4 CHANGES IN WORK

A. The Owner, without invalidating the Contract may make changes by altering, adding to, or deducting from the work, the Contract sum and construction duration being adjusted accordingly. All such work shall be executed under the conditions of the original contract. Unless so authorized, the Contractor shall not deviate from nor alter the work as shown on the drawings or specifications. Additional work may be added to project by using project allowances as prescribed herein.

1. In the event additional work is added to the project via allowances the Contractor shall provide an analysis of the schedule impact if any. If additional work is shown to impact the construction schedule the Contractor shall be entitled additional time as agreed to by architect. If additional work is shown by schedule analysis to have no impact, no additional construction duration will added to project.
2. Any changes in construction duration shall be documented by a Change Order to Contract.

B. If Contractor should claim that any instruction, request, drawing, specification, action, condition, omission, default, or other situation constitutes a change, extra work, or otherwise obligates Owner to pay additional compensation to Contractor or to grant an extension of time, or constitutes a waiver of any provision in the Contract Documents, Contractor shall notify Owner in writing of such claim within ten calendar days from the date Contractor has actual or constructive notice of the factual basis supporting the claim. The notice shall state the factual basis for the claim and cite in detail the Contract Documents (including plans and specifications) upon which the claim is based. Contractor's failure to notify Owner and Architect within the ten-day period shall be deemed a waiver and relinquishment of such a claim. If the notice is given within the specified time, the procedure for its consideration shall be as stated in these General Conditions. In the event of failure to agree, the matter shall be treated as a claim following the claims procedures in the Contract Documents.

C. No change shall be made without such authorization, signed by the Owner, and countersigned by the Architect, or signed by the Architect and stating that the Owner has authorized such changes.

1. Refer to Supplementary Conditions for Construction Change Directive (CCD) procedures.
2. Refer to Supplementary Conditions for Supplemental Instructions (SI) procedures.

D. Any changes processed by the Contractor or any work performed not in conformance with these plans and specifications which requires extra drawing, specifications, calculations, inspections and any other work by the Architect and/or Engineers shall be paid for by the Contractor. Payment shall be made to the Architect at current hourly rate on file due and payable upon presentation of invoice.

1.5 CHANGE ORDER PROCESS-(OWNER AND CONTRACTOR INITIATED PROPOSAL REQUEST, AND ALLOWANCES.)

A. Owner-Initiated Proposal Requests: Proposed changes in the Work that will require adjustment to the Contract Sum or Contract Time will be issued by the Architect, with a detailed description of the proposed change and supplemental or revised Drawings and Specifications, if necessary.

1. Request for Proposal requests (RFP),issued by the Architect are for information only. Do not consider them an instruction either to stop work in progress, or to execute the proposed change.
2. Unless otherwise indicated in the proposal request, within 20 calendar days of receipt of the proposal request, submit to the Architect for the Owner's review an estimate of cost necessary to execute the proposed change as well as Construction Duration impact.

a. Include a list of quantities of products to be purchased and unit costs, along with the

total amount of purchases to be made. Where requested, furnish survey data to substantiate quantities.

b. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.

c. Include a statement indicating the effect the proposed change in the Work will have on the Contract Duration.

d. Before Contractor is authorized to proceed with extra work or changes on the basis set forth above, the Owner and the Contractor shall be in complete agreement on what the term "costs" shall include and the amount of overhead and profit the Contractor is to charge.

e. All unit prices, whether set forth in the Contract or subsequently agreed upon, shall include overhead, profit, supervision, increased premium on all Bonds, increased premium on all insurances and other indirect cost for all tiers of contractors and related material men unless said items are being paid thru an allowance where overhead, profit, supervision, bonds, insurance and related items are included in contractor's base bid.

f. If there has been no response within 20 calendar days to an Architect's Request for Proposal, the Architect may direct the change to be done Time and Material. Under no circumstance may the contractor increase cost or increase schedule time due to Owner not receiving proposal timely.

B. Contractor-Initiated Change Order Proposal Requests: When latent or other unforeseen conditions require modifications to the Contract, the Contractor may propose changes by submitting a request for a change to the Architect.

1. Include a statement outlining the reasons for the change and the effect of the change on the Work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and Contract Time.
2. Include a list of quantities of products to be purchased and unit costs along with the total amount of purchases to be made. Where requested, furnish survey data to substantiate quantities.
3. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
4. Comply with requirements in Supplementary Conditions Article 15 Substitutions if the proposed change in the Work requires the substitution of one product or system for a product or system specified.
5. Claim submitted to the Architect for extensions of time and extra cost shall be made on forms carrying Contractor's letterhead and shall contain a complete breakdown of all costs and extension of Surety Bonds and Insurance impacts.
6. Before Contractor is authorized to proceed with extra work or changes on the basis set forth above, the Owner and the Contractor shall be in complete agreement on what the term "costs" shall include and the amount of overhead and profit the Contractor is to charge as any Contract Duration impacts.

C. For changes that increase or decrease the contract price, or being paid by allowance item, the Contractor shall include the following amounts for overhead and profit:

1. Contractor's overhead and profit on the cost of work excluding work by Contractor shall be a total sum not exceeding ten percent (10%) of cost of such work. (See below for allowances)
2. Contractor's overhead and profit on the cost of work performed by contractor without subcontractor shall be a total sum not exceeding ten percent (10%) of the cost of labor, materials, rentals, etc. (See below for allowances)
3. Subcontractor's overhead and profit on the cost of work performed by subcontractor shall be a total sum not exceeding ten percent (10%) of the cost of labor, materials, rentals, etc.
4. Subcontractor's overhead and profit on the cost of work performed by sub-contractors (one

lower tier) shall be a total sum not exceeding five percent (5%) of such work.

5. Allowances: The contractor shall include in his base bid all overhead, profit, supervision, bonds, insurance and all other indirect costs for allowance items. None of these items will be added to lump sum and miscellaneous allowance as it is used by the Owner and directed by the Architect. In the event the allowance is required in an Alternate, the Contractor shall include in his alternate bid all overhead, profit, supervision, bonds, insurance and all other indirect costs for allowance items specific to that alternate.

D. Time and Material basis as changes in the work. For changes that increase the contract price and work is authorized based upon the cost of labor, material, equipment and subcontract prices, plus a percentage for overhead and profit the following requirements shall apply. In the event the costs for changes in the work are not agreed to by the Architect and Contractor the work may be authorized to move forward on a time and material basis. If a Time and Material basis is used and scope of work is being paid thru an allowance overhead and profit are to be included in base bid and alternates where occur.

1. Daily reports by Contractor, as follows:

a. General. At the close of each working day, Contractor shall submit a daily report to the Architect and the Project Inspector on forms approved by Owner, together with applicable delivery tickets listing all labor, materials, and equipment involved for that day, and for other services and expenditures, when authorized, concerning extra work items. An attempt shall be made to reconcile the report daily, and it shall be signed by the Architect and Contractor. In the event of disagreement, pertinent notes shall be entered by each party to explain points which cannot be resolved immediately. Each party shall retain a signed copy of the report. Reports by subcontractors or others shall be submitted through Contractor.

b. Labor. The report shall show names of workers, classifications, and hours worked and hourly rate. Project supervision expenses, including for foremen and above, are not allowed. (iii) Materials. The report shall describe and list quantities of materials used and unit cost.

c. Equipment. The report shall show the type of equipment, size, identification number, and hours of operation, including loading and transportation, if applicable, and hourly/daily costs.

d. Other Services and Expenditures. Other services and expenditures shall be described in such detail as Owner may require.

2. Basis for Establishing Costs

a Labor. The costs of labor will be the actual cost for wages prevailing locally for each craft classification or type of worker at the time the extra work is done, plus employer payments of payroll taxes and insurance, health and welfare, pension, vacation, apprenticeship funds, and other direct costs resulting from federal, state, or local laws, as well as assessments or benefits required by lawful collective bargaining agreements. The use of labor classifications which would increase the extra work cost will not be permitted unless Contractor establishes the necessity for such additional costs. Labor costs for equipment operators and helpers shall be reported only when such costs are not included in the invoice for equipment rental.

b. Materials. The cost of materials reported shall be at invoice or lowest current price at which such materials are locally available and delivered to the work site in the quantities involved, plus sales tax, freight, and delivery. Owner reserves the right to approve materials and sources of supply, or to supply materials to Contractor if necessary for the progress of the work. No markup shall be applied to any material provided by the Owner.

c. Tool and Equipment Rental. No payment will be made for the use of tools which

have a replacement value of $100 or less or where an invoice is not provided. Regardless of ownership, the rates to be used in determining equipment rental costs shall not exceed listed rates prevailing locally at equipment rental sources or distributors at the time the work is performed. The rental rates paid shall include the cost of fuel, oil, lubrication, supplies, small tools, necessary attachments, repairs and maintenance of any kind, depreciation, storage, insurance, and all incidentals. Necessary loading and transportation costs for equipment used on the extra work shall be included. If equipment is used intermittently, and when not in use could be returned to its rental source at less expense to Owner than holding it at the work site, it shall be returned, unless Contractor elects to keep it at the work site at no expense to Owner. All equipment shall be acceptable to the Architect in good working condition, and suitable for the purpose for which it is to be used. Manufacturer's ratings and manufacturer's approved modifications shall be used to classify equipment and it shall be powered by a unit of at least the minimum rating recommended by the manufacturer.

d. Other Items. Owner may authorize other items which may be required on the extra work. These items include labor, services, material, and equipment which are different in their nature from those required by the work and which are of a type not ordinarily available from Contractor any of the Subcontractors. Detailed invoices covering all such items shall be submitted with the request for payment. (v) Invoices. Vendors' invoices for material, equipment rental, and other expenditures shall be submitted with the request for payment. If the request for payment is not substantiated by invoices or other documentation, Owner may establish the cost of the item involved at the lowest price which was current at the time of the report.

3. Daily worker time sheets shall be approved by the Project Inspector as well as copies of all materials invoices delivered to project site for this specific change. Time sheets and copies of all material costs shall be provided with pay request for this specific change with daily approvals by Project Inspector

E. The following form shall be used by Contractor as applicable to communicate proposed additions and deductions to the Contract Documents and use of allowances:

#	Description	Extra	Credit
a	Materials (attached itemized quantity and unit costs including any sales tax.	_____	_____
b	Labor (attached itemized hours and rates)	_____	_____
c	$ Subtotal	_____	_____
d	Subcontractor's overhead and profit on the cost of work performed by sub-contractors (one lower tier) shall be a total sum not exceeding five percent (5%) of such work.	_____	_____
e	$ Subtotal	_____	_____
f	Subcontractor's overhead and profit on the cost of work performed by subcontractor shall be a total sum not exceeding ten percent (10%) of the cost of labor, materials, rentals, etc.	_____	_____
g	$ Subtotal	_____	_____
h	Contractor's overhead and profit on the cost of work excluding work by Contractor shall be a total sum not exceeding ten percent (10%) of cost of such work. (Refer to project manual “Allowances” where overhead and profit are included in base bid and alternates where occur)	_____	_____

i	Contractor's overhead and profit on the cost of work performed by contractor without subcontractor shall be a total sum not exceeding ten percent (10%) of the cost of labor, materials, rentals, etc. . (Refer to project manual "Allowances" where overhead and profit are included in base bid and alternates where occur)	_____	_____
j	Bond Premium (Submit invoice from Bonding provider) . (Refer to project manual "Allowances" where bond premium are included in base bid and alternates where occur)	_____	_____
k	Insurance (Submit invoice from Insurance provider) (Refer to project manual "Allowances" where bonds and insurance are included in base bid and alternates where occur)	_____	_____
l	$ Total	_____	_____
m	Number of additional days time extension requested due to this time and material change. (Submit as built critical path schedule validating time extension for review and approval)	_____	_____
	Total Days	_____	_____
	Subcontractor's labor, material, overhead and profit shall be submitted with documentation in original form as submitted to General Contractor. (Refer to project manual "Allowances" where overhead and profit are included in base bid and alternates where occur)	_____	_____

F. It is expressly understood that the value of such extra work or changes as determined by any of the methods herein expressly includes any and all of the contractors' costs and expense, both direct and indirect, resulting from delays or additional time required on the project, or resulting from accelerated work to avoid delays to the project.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 012600

CONSTRUCTION REQUEST FOR INFORMATION

DATE: _____ RFI # _____

ATTN: Jose Vargas
3434 Truxtun Avenue Ste 240
Bakersfield CA 93301

PROJECT: Dorm Plumbing Replacement

PROJECT#: 391-0144

Subject: _____ Section #: _____
Sheet #: _____

Description: _____

☐ Clarification ☐ Unforeseen Condition ☐ Owner Change ☐ Others

Requesting Sponsor: _____ Approved by: _____

Total number of pages: _____ Contractor: _____

☐ RFI has been reviewed with Project Inspector without resolution

The Architect has 15 business days after written request is received to respond to Request for Information. No delay will be recognized on account of failure of Architect to furnish such interpretations within that period. Partial response or request for clarification of Request for Information constitutes response by Architect. Claims for adjustment shall be made within 10 calendar days after occurrence of the event giving rise to such claim in writing. Date received at Architect's office of signed original claim shall constitute date received. Architect shall be reimbursed by Contractor for time at current hourly rates prevailing to respond to Request for Information that are found to be substantially answered in Construction Documents.

ARCHITECT'S RESPONSE:

☐ RFI not valid ☐ RFI valid

Issued RFI Response #: _____

SECTION 013100 - PROJECT MEETINGS

03/24/16

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 0 & 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section specifies administrative and procedural requirements for project meetings including but not limited to:

1. Pre-Construction Conference.
2. Progress Meetings.

B. Related sections include the following construction schedules are specified in another Division-1 Section.

1. Division 1 Section “Submittals” for construction schedules and related items.
2. Division 1 Section “Progress Schedule and Reports” for construction schedules.

1.3 PRE-CONSTRUCTION CONFERENCE

A. Schedule a pre-construction conference and organizational meeting at the Project site or other convenient location no later than 15 days after Notice to Proceed and prior to commencement of construction activities. Conduct the meeting to review responsibilities and personnel assignments.

B. Attendees: The Owner, Architect, the Contractor and its superintendent, major subcontractors, manufacturers, suppliers and other concerned parties shall each be represented at the conference by persons familiar with and authorized to conclude matters relating to the Work.

C. Agenda: Discuss items of significance that could affect progress including such topics as:

1. Tentative construction schedule.
2. Critical Work sequencing.
3. Designation of responsible personnel.
4. Procedures for processing field decisions and Change Orders.
5. Procedures for processing Applications for Payment.
6. Distribution of Contract Documents.
7. Submittal of Shop Drawings, Product Data and Samples.
8. Preparation of record documents.
9. Use of the premises.
10. Office, Work and storage areas.
11. Equipment deliveries and priorities.
12. Safety procedures.
13. First aid.
14. Security.
15. Housekeeping.

16. Working hours.

1.4 PRE-INSTALLATION CONFERENCES

A. Conduct a pre-installation conference at the site before each construction activity that requires coordination with other construction. The Installer and representatives of manufacturers and fabricators involved in or affected by the installation, and its coordination or integration with other materials and installations that have preceded or will follow, shall attend the meeting. Advise the Architect of scheduled meeting dates.

1. Review the progress of other construction activities and preparations for the particular activity under consideration at each pre-installation conference, including requirements for:

a. Contract Documents.
b. Deliveries.
c. Shop Drawings, Product Data and quality control Samples.
d. Possible conflicts.
e. Compatibility problems.
f. Time schedules.
g. Weather limitations.
h. Manufacturer's recommendations.
i. Compatibility of materials.
j. Acceptability of substrates.
k. Temporary facilities.
l. Space and access limitations.
m. Governing regulations.
n. Safety.
o. Inspection and testing requirements.
p. Required performance results.
q. Protection.

2. Record significant discussions and agreements and disagreements of each conference, along with the approved schedule. Distribute the record of the meeting to everyone concerned, promptly, including the Owner and Architect.
3. Do not proceed if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of Work and reconvene the conference at the earliest feasible date.

1.5 PROGRESS MEETINGS

A. Conduct progress meetings at the Project site at periodic scheduled intervals. Coordinate schedules with the Owner and Architect of proposed meeting dates in advance of meetings. Discuss at Pre-construction meeting. Coordinate dates of meetings with preparation of the payment request such Architect and Project Inspector can discuss any issue with Contractor on project site.

B. Attendees: In addition to representatives of the Owner and Architect, each subcontractor, supplier or other entity concerned with current progress or involved in planning, coordination or performance of future activities shall be represented at these meetings by persons familiar with the Project and authorized to conclude matters relating to progress.

C. Agenda: Review and correct or approve minutes of the previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to the current status of the Project.

1. Contractor's Construction Schedule: Review progress since the last meeting. Determine where each activity is in relation to the Contractor's Construction Schedule, whether on time or ahead or behind schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.

2. Review the present and future needs of each entity present, including such items as:

    a. Interface requirements.
    b. Time.
    c. Sequences.
    d. Deliveries.
    e. Off-site fabrication problems.
    f. Access.
    g. Site utilization.
    h. Temporary facilities and services.
    i. Hours of Work.
    j. Hazards and risks.
    k. Housekeeping.
    l. Quality and Work standards.
    m. Safety of Students and Staff.
    n. Documentation of information for payment requests.
    o. HCP Impacts on project and work schedules.

D. Reporting: No later than 3 business days after each progress meeting date, distribute copies of minutes of the meeting to each party present and to other parties who should have been present. Include a brief summary, in narrative form, of progress since the previous meeting and report.

1. Schedule Updating: Revise the construction schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue the revised schedule concurrently with the report of each meeting.
2. Send Architect, Construction Manager, Project Inspector, and Owner digital files of meeting report and revised schedules.
3. Architect shall provide a copy of field report made during visit to Contractor within 10 days of site visit.

1.6 PROJECT COORDINATION MEETINGS

A. Conduct coordination meetings at the site before each construction activity that requires coordination with other construction. The various Contractors involved in or affected by the installation, and its coordination or integration with other materials and installations shall attend the meeting. Advise the Architect of scheduled meeting dates.

1. Coordination Meetings Schedule (Minimum):

    a. Ceiling/Attic Contractors: The following Contractors shall attend and coordinate construction activities and space requirements:

        1) Plumbing Systems.
        2) Other Systems.

2. Record significant discussions and agreements and disagreements of each meeting, along with the approved coordination drawings. Distribute the record of the meeting to everyone concerned, promptly, including the Owner and Architect.
3. Do not proceed if the coordination meeting cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of Work and reconvene the coordination meeting at the earliest feasible date.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 013100

SECTION 013300 - SUBMITTALS 01/22/24

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division 0 & 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section specifies administrative and procedural requirements for submittals required for performance of the Work, including, but not limited to,;

1. Contractor's construction project schedule.
2. List of products/manufacturers.
3. Shop Drawings.
4. Product Data.
5. Samples.
6. Miscellaneous Submittals.
7. Construction Schedule and updates required for each payment request.

B. Administrative Submittals: Refer to other Division-1 Sections and other Contract Documents for requirements for administrative submittals. Such submittals include, but are not limited to:

1. Applications for payment.
2. Performance and payment bonds.
3. Insurance certificates.
4. List of Subcontractors.
5. Schedule of Values.
6. Electronic certified payroll records directly to the Labor Commissioner.
7. Preliminary notices (20-day notice).
8. Procedures for substitutions.

C. Other submittals:

1. See Division 1 Section "Project Schedule and Reports," for additional schedule and report requirements

1.3 SUBMITTAL PROCEDURES

A. Coordination: Coordinate preparation and processing of submittals with performance of construction activities. Transmit each submittal sufficiently in advance of performance of related construction activities to avoid delay.

1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals and related activities that require sequential activity.
2. Coordinate transmittal of different types of submittals for related elements of the Work so processing will not be delayed by the need to review submittals concurrently for coordination.

a. The Architect reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
b. No color selections will be made until all color samples for entire project have been received by the Architect and determined to be acceptable.

3. Processing: Allow sufficient review time so that installation will not be delayed as a result of

the time required to process submittals, including time for re-submittals.

a. Allow three weeks for initial review (21 calendar days). Allow additional time if processing must be delayed to permit coordination with subsequent submittals. The Architect will promptly advise the Contractor when a submittal being processed must be delayed for coordination.
b. If an intermediate submittal is necessary, process the same as the initial submittal.
c. Allow two weeks (14 calendar days) for reprocessing each submittal.
d. No extension of Contract Time or claims for additional costs will be approved or authorized because of failure to transmit submittals to the Architect sufficiently in advance of the Work and Critical Path Schedule to permit processing requirements indicated herein. Submittals covering component items and forming an interrelated system of items must be coordinated and submitted concurrently rather than individual submittals for review.
e. Time is defined as calendar days, starting from date item is received in architect's office and end with date of transmittal to General Contractor as last day of review.

1) Where Submittal is required to be reviewed by consulting Engineer, time to review will be increased by seven (7) calendar days for review.
2) Where Submittal is required to be reviewed by two parties--i.e., Architect-Engineer, Engineer-Engineer--add fourteen (14) calendar days for review.
3) The Architects' office is closed from December 16 through January 2 of each calendar year. Submittals received less than 21 calendar days before office closing may not be processed before office closed dates noted herein. The balance of the 21 calendar days will resume after January 2 of each closing for submittals and related items. It is the contractor's responsibility to have critical submittals received by the architect 21 calendar days prior to above closing for timely processing.

a). Consulting engineering related submittals and re-review items will add time as indicated herein above to the amount of time indicated due to office closing.

f. Shop drawings, submittals and related items shall be submitted at a time sufficiently early to allow review by the Architect and the Division of State Architect (DSA) if required, and to accommodate the rate of construction progress required under the Contract Documents. Contractor will be required to pay the Architect's reasonable and customary fees to expedite review of shop drawings which are not submitted in timely fashion.
g. Contractor shall have no claim for damages or extension of time due to any delay resulting from contractor having to make required revisions to shop drawings unless the Architect's review of the drawings is delayed beyond the time provided in the contract documents and contractor can establish that the Architect's delay is review actually resulted in a delay in Contractor's construction schedule. Contractor shall provide a record as built schedule as proof of delays within 10 days of the event that gives rise to a delay claim. Contractor shall not be entailed to any claim for damages resulting from DSA review beyond days allowed herein documents after submittal. However, owner may consider an extension of time due to any delay caused by DSA review.

4. All submittals shall be cross-referenced to contract documents to expedite checking. Use Project Manual's section designation and Working Drawing's sheet number(s).

B. Submittal Preparation: Place a permanent label or title block on each submittal for identification. Indicate the name of the entity that prepared each submittal on the label or title block.

1. Provide a space approximately 4" x 4" on the label or beside the title block on Shop Drawings to record the Contractor's review and approval markings and the action taken. Provide on the label or beside the title block on Shop Drawings to record the Architect's review and approval markings and the action taken.

2. Include the following information on the label for processing and recording action taken.

   a. Project name.
   b. Date.
   c. Name and address of Architect.
   d. Name and address of Contractor.
   e. Name and address of subcontractor.
   f. Name and address of supplier.
   g. Name of manufacturer.
   h. Number and title of appropriate Specification Section.
   i. Drawing number and detail references, as appropriate.

3. Submittals shall be stamped and signed by the Prime Contractor to the effect that the contents have been reviewed and approved by him and meet the requirements for this project. Submittals will not be reviewed without this approval by Prime Contractor. Contractor's review and approval of shop drawings shall include the following stamp:

   a. "Contractor has reviewed and approved not only the field dimensions but the construction criteria and has also made written notation regarding any information in the shop drawings that does not conform to the Contract Documents. This shop drawing has been coordinated with all other shop drawings received to date by Contractor and this duty of coordination has not been delegated to subcontractors, material suppliers, the Architect, or the engineers on this Project.
      _____
      Signature of Contractor"

C. Submittal Transmittal: Package each submittal appropriately for transmittal and handling. Transmit each submittal from Contractor to Architect using a transmittal form. Submittals received from sources other than the Contractor will be returned without action.

   1. On the transmittal record relevant information and requests for data. On the form, or separate sheet, record deviations from Contract Document requirements, including minor variations and limitations. Include Contractor's certification that information complies with Contract Document requirements.

D. Failure to provide adequate and correct submittals: Contractor shall make a complete and acceptable submittal to the Architect by the second submission of submittals. Owner shall withhold funds due to Contractor to cover additional costs of the Architect's review beyond the second submission and any other costs incurred by Owner.

   1. Architect shall be reimbursed for all time spent in reviewing and processing of re-submittals of any submittals after the second submission where items have not been addressed, corrected and/or providing a complete submittal as requested by architect in previous submissions of a submittal.

E. Submittal quantities:

   1. Provide digital PDF copies of all submittals except as follows:

      a. Shop Drawings: Provide PDF copies of shop drawings. Architect and Engineer will red line any corrections. Contractor will be sent a PDF file of shop drawing for distribution and printing by Contractor.

1.4 CONTRACTOR'S CONSTRUCTION PROJECT SCHEDULE

A. Bar-Chart Schedule: Prepare a fully developed, horizontal bar-chart type Contractor's construction project schedule. Identify critical path items throughout project schedule. Submit within 15 days of the award of contract.

1. Provide a separate time bar for each significant construction activity. Provide a continuous vertical line to identify the first working day of each week. Use the same breakdown of units of the Work as indicated in the "Schedule of Values".
2. Within each time bar indicate estimated completion percentage in maximum 10 percent increments. As Work progresses, place a contrasting mark in each bar to indicate Actual Completion.
3. Prepare the schedule on a sheet, or series of sheets of sufficient width to show data for the entire construction period.
4. Secure time commitments for performing critical elements of the Work from parties involved. Coordinate each element on the project schedule with other construction activities; include minor elements involved in the sequence of the Work. Show each activity in proper sequence. Indicate graphically sequences necessary for completion of related portions of the Work.
5. Coordinate the Contractor's construction project schedule with the schedule of values, list of subcontracts, submittal schedule, progress reports, payment requests and other schedules.
6. Indicate completion in advance of the date established for Final Completion. Indicate Final Completion on the schedule to allow time for the Architect's procedures necessary for certification of Final Completion.

B. Phasing: Provide notations on the schedule to show how the sequence of the Work is affected by requirements for phased completion to permit Work by separate Contractors, partial occupancy by the Owner prior to Final Completion.

C. Work Stages: Indicate important stages of construction for each major portion of the Work, including testing and installation.

D Weather Delays: Contractor shall show anticipated rain, sleet, snow, wind and other weather driven delays on initial project schedule, as separate line items for each weather delay type, based upon Contractor’s proposed ways and means. Refer to Project Manual herein for additional requirements.

E. Area Separations: Provide a separate time bar to identify each major construction area for each major portion of the Work. Indicate where each element in an area must be sequenced or integrated with other activities.

F. Distribution: Following response to the initial submittal, print and distribute copies to the Architect, Owner, subcontractors, and other parties required to comply with scheduled dates. Post copies in the Project meeting room and temporary field office.

G. Submit with each payment request an updated construction project schedule with the above item plus the following items:

1. As-built project schedule of worked performed to date.
2. Adjusted project schedule showing schedule to complete work.
3. Number of weather delay days and audit of days used for each type of weather delay.
4. Updated Final Completion project schedule dates.

1.5 LIST OF PRODUCTS/MANUFACTURES

A. Not later than 35 days from the date of the notice to proceed and prior to installation of items, whichever is less, the Contractor shall provide a list showing the name of the manufacturer proposed to be used for each of the products, proposed for installation, and not specified or named in the contract documents including the name of manufacturer of each, for review by the Owner and Architect. The list shall be tabulated by, and be complete for each specification section. Where applicable, subcontractor's names shall be included in such list.

1.6 SHOP DRAWINGS

A. Submit newly prepared information, drawn to accurate scale. Highlight, encircle, or otherwise indicate deviations from the Contract Documents. Do not reproduce Contract Documents or copy standard information as the basis of Shop Drawings. Standard information prepared without specific reference to the Project is not considered Shop Drawings.

B. Shop Drawings include fabrication and installation drawings, setting diagrams, schedules, patterns, templates, shop work manufacturing instructions, coordination drawings (for on-site use), design mix information, contractor's engineer calculations, and similar drawings. Include the following information:

1. Dimensions.
2. Identification of products and materials included.
3. Compliance with specified standards.
4. Notation of coordination requirements.
5. Notation of dimensions established by field measurement.
6. Sheet Size: Except for templates, patterns and similar full- size Drawings, submit Shop Drawings on sheets at least 8-1/2" x 11" but no larger than 36" x 48 (See herein for electronic submittals)".
7. Initial Submittal: Submit one black-line print for the Architect's review; the reproducible print will be returned, (see herein for electronic submittals).

    a. Structural steel, metal deck and miscellaneous steel. Submit black line print and 3 copies for initial submittal.

8. Final Submittal: Submit copies per enclosed requirements.
9. Do not use Shop Drawings without an appropriate final stamp indicating action taken in connection with construction.

C. Coordination drawings are a special type of Shop Drawing that show the relationship and integration of different construction elements that require careful coordination during fabrication or installation to fit in the space provided or function as intended.

1. Preparation of coordination Drawings include components previously shown in detail on Shop Drawings or Product Data.
2. Submit coordination Drawings for integration of different construction elements. Show sequences and relationships of separate components to avoid conflicts in use of space.

1.5 PRODUCT DATA

A. Collect Product Data into a single submittal for each element of construction or system. Product Data includes printed information such as manufacturer's installation instructions, catalog cuts, standard color charts, roughing-in diagrams and templates, standard wiring diagrams and performance curves. Where Product Data must be specially prepared because standard printed data is not suitable for use, submit as "Shop Drawings."

1. Mark each copy to show applicable choices and options. Where printed Product Data includes information on several products, some of which are not required, mark copies to indicate the applicable information. Include the following information:

    a. Manufacturer's printed recommendations.
    b. Compliance with recognized trade association standards.
    c. Compliance with recognized testing agency standards.
    d. Application of testing agency labels and seals.
    e. Notation of dimensions verified by field measurement.
    f. Notation of coordination requirements.

2. Do not submit Product Data until compliance with requirements of the Contract Documents has been confirmed.

3. Preliminary Submittal: Submit a preliminary single-copy of Product Data where selection of options is required.
4. Submittals: Submit copies of each required submittal; submit hardcopies where required for maintenance manuals. The Architect will retain one, and will return the other marked with action taken and corrections or modifications required.

    a. Unless noncompliance with Contract Document provisions is observed, the submittal may serve as the final submittal.

5. Distribution: Furnish copies of final submittal to installers, subcontractors, suppliers, manufacturers, fabricators, and others required for performance of construction activities. Show distribution on transmittal forms.

    a. Do not proceed with installation until an applicable copy of Product Data applicable is in the installer's possession.
    b. Do not permit use of unmarked copies of Product Data in connection with construction.

1.6 MATERIALS SPECIFIED

A. The Contract is based on standards of quality established in the Contract Documents.

1. In agreeing to the terms and conditions for the Contract, the Contractor has accepted the responsibility to verify that the specified products will be available and to place orders for all required materials in such a timely manner as needed to meet his agreed construction schedule.
2. Neither the Owner nor the Architect has agreed to the substitution of materials or methods called for in the Contract Documents, except as they may specifically otherwise state in writing and when approved in advance of purchase and installation per requirements herein.

B. Colors: Provide finish selections indicated in the Project Manual and Plans.

1. Acceptable Manufacturers: The products and manufacturer's specified in the Project Manual and Plans are for purposes of establishing color selection options and quality.
2. Manufacturer's Standard colors and Finishes: Where the Project Manual or Plans specifies a manufacturer's standard color or finish, the Architect makes no guarantee that matching colors or finishes are available as other non-listed manufacturer's "standard colors" from the listing of acceptable manufacturers. The Contractor shall be responsible for providing colors matching those indicated in the Project Manual of listed acceptable manufacturer in the Project Manual at no additional cost.
3. Custom Colors: Where the Finish Schedule Project Manual and or Plan indicates a specific manufacturer's colors, other acceptable manufacturer shall provide matching custom colors where a standard color in not acceptable at no additional cost.

1.10 SAMPLES

A. Submit full-size, fully fabricated Samples cured and finished as specified and physically identical with the material or product proposed. Samples include partial sections of manufactured or fabricated components, small cuts or containers of materials, color range sets, complete units of repetitively used materials, units of work to be used for independent inspection and testing, and swatches showing color, texture and pattern.

1. Mount, display, or package Samples in the manner specified to facilitate review of qualities indicated. Prepare Samples to match the Architect's Sample. Include the following:

    a. Generic description of the Sample.

b. Sample source.
c. Product name or name of manufacturer.
d. Compliance with recognized standards.
e. Availability and delivery time.

2. Submit Samples for review of kind, color, pattern, and texture, for a final check of these characteristics with other elements, and for a comparison of these characteristics between the final submittal and the actual component as delivered and installed.

   a. Where variation in color, pattern, texture or other characteristics are inherent in the material or product represented, submit multiple units (not less than 6), that show approximate limits of the variations.
   b. Refer to other Specification Sections for requirements for Samples that illustrate workmanship, fabrication techniques, details of assembly, connections, operation and similar construction characteristics.

3. Preliminary submittals: Where Samples are for selection of color, pattern, texture or similar characteristics from a range of full selection, submit three (3) full sets of choices for the material or product.

   a. Color selection shall be done upon complete submittal of materials and/or products needing color selection. It is the responsibility of the general contractor to see to it that required submittals for color selection shall be submitted to the Architect prior to time for implementation to not affect project schedule.
   b. Provide ninety (90) days time allowance for the Architect to work out preliminary schemes for College approval from receipt of complete color submittal of all items for this project.

4. Submittals: Except for Samples illustrating assembly details, workmanship, fabrication techniques, connections, operation and similar characteristics, submit 4 sets; one will be returned marked with the action taken.

5. Maintain sets of Samples, as returned, at the Project site, for quality comparisons throughout the course of construction.

   a. Unless noncompliance with Contract Document provisions is observed, the submittal may serve as the final submittal.
   b. Sample sets may be used to obtain final acceptance of the construction associated with each set.

B. Distribution of Samples: Prepare and distribute additional sets to subcontractors, manufacturers, fabricators, suppliers, installers, and others as required for performance of the Work. Show distribution on transmittal forms.

1. Field Samples specified in individual Sections are special types of Samples. Field Samples are full-size examples erected on site to illustrate finishes, coatings, or finish materials and to establish the standard by which the Work will be judged.

   a. Comply with submittal requirements to the fullest extent possible. Process transmittal forms to provide a record of activity.

1.7 MISCELLANEOUS SUBMITTALS

A. Miscellaneous submittals are work related submittals (non-administrative) including warranties, maintenance agreements, workmanship bonds, survey data and reports, quality testing and certifying reports, copies of industry standards, record drawings, field measurement data, operating and maintenance materials, overrun stock, and similar work related information and materials not process as shop drawings, product data or samples.

B. Inspection and Test Reports: Classify and process each as either "shop drawing" or "product data", depending upon whether report is uniquely prepared for project or a standard publication.

C. Warranties: Refer to "Products" section for specific general requirements on warranties, product/workmanship bonds, and maintenance agreements. In addition to copies desired for Contractor's use, furnish 2 executed copies, plus additional copies where required for maintenance manuals.

D. Standards: Where submittal of a copy of standards is indicated, submit a single copy for Architect's/Engineer's use. Where workmanship at project site and elsewhere is governed by standard, furnish additional copies to fabricators, installers and others involved in performance of the work.

E. Closeout Submittals: Refer to "Project Closeout" section for specific general requirements on submittal of closeout information, materials, tools, and similar items.

F. Schedule of Values: Contractor shall submit Schedule of Values per Instructions to Bidders,. Refer to General Conditions for minimum list of items to be included in Schedule of Values. Changes in Schedule of Values will not be allowed after Notice to Proceed is issued, unless directed by Architect and/or Change Order items which shall carry their own value as a line item on Schedule of Values.

G. Certified Payroll Records: Refer to “General Conditions” section for specific general and apprentices requirements..

1. All contractors and subcontractors must furnish electronic certified payroll records directly to the Labor Commissioner (aka Division of Labor Standards Enforcement).
2. General Contractor shall provide certification that all requirements for prevailing wage have been made with each application for payment, not limited to paying prevailing wage, documentation of prevailing wage and furnishing electronically to Labor Commissioner.

1.12 ARCHITECT'S ACTION

A. Except for submittals for record, information or similar purposes, where action and return is required or requested, the Architect will review each submittal, mark to indicate action taken, and return.

1. Compliance with specified characteristics is the Contractor's responsibility.
2. Numerous serious corrections, or incomplete submittals, will necessitate resubmittal, in which case, only one copy will be returned with notations. Contractor shall resubmit required number of sets with corrections made with original mark-up submittal for review.

B. Conditions of Review: Architect's review is for general conformance with the design concept and contract documents. Review action on a submittal by the Architect does not in any way constitute a change order. Markings or comment shall not be construed as relieving the Contractor from compliance with the project plans and specifications, nor departures therefrom. The Contractor remains responsible for details and accuracy, for conforming an correlating all quantities and dimensions, for selecting fabrication processes for techniques of assembly, and for performing his work in a safe manner.

1. The Contractor is responsible for coordination of his work with and between that of all subcontractors and trades.
2. Absolutely no deviation from the Contract Documents will be permitted without written acknowledgement from Architect of receipt and Review of Written Notification from the Contractor to the Architect accompanying this submittal of all deviations contained in this submittal.
3. The Architect's review is not the final stage of acceptance for any part of the project, nor does it relieve the Contract responsibilities.
4. Contractor shall submit an itemized list of changes of items different than specified/indicated

herein and on construction documents. List shall include items that are different and omitted. In the event items are not included on list, omitted from submittal and/or different than specified; Contractor shall be responsible for providing specified item(s). Liabilities subsequent to items omitted/or different shall be the responsibility of Contractor and shall be warranted a minimum of five (5) years or greater as prescribed by law. If no list is included with Shop Drawings, Architect assumes all items are as specified. Items discovered within five (5) years of Notice of Completion shall be corrected and provided by Contractor and Subcontractor at no cost to Owner.

C. Action: The Architect will identify each submittal with a uniform, self-explanatory action sheet. The sheet will be appropriately marked, as follows, to indicate the action taken:

1. No Exceptions Taken: If this box is marked, the work covered by the submittal may proceed provided it complies with the requirements of the contract documents; acceptance of the work will depend upon that compliance.
2. Make Corrections Noted: If box is marked, the work covered by the submittal may proceed provided it complies with both the Architect's/Engineer's notations or corrections to the submittal and with the requirements of the contract documents; acceptance of the work will depend on that compliance. Submit corrected copy for record if requested by the Architect.
3. Revise and Resubmit: If this box is marked, do not proceed with the work covered by the submittal, including purchasing, fabrication, delivery, or other activity. Revise the submittal in accordance with the Architect's/Engineer's notations and resubmit without delay. Repeat if necessary.
4. Rejected: If this box is marked, do not proceed with the work covered by the submittal, including purchasing, fabrication, delivery, or other activity. Revise the submittal or prepare a new submittal in accordance with the Architect's/Engineer's notations and resubmit to Architect.

    a. Do not permit submittals marked "Rejected" or, “Revise and Resubmit" to be used at the Project site, or elsewhere where Work is in progress.

5. Action Not Required: Where a submittal is primarily for information or record purposes, special processing or other activity, the submittal will be returned, marked "Action Not Required".
6. Remarks: The review has occasioned comments that have been attached to the submittal. Process these comments as if they had been written on the submittal itself.
7. Requires Intermediate Submittal: Submittal does not meet all requirements for a complete approval. Submittal requires additional information for processing.

1.13 SUBSTITUTIONS

A. Substitution Request:

1. Cost to Contractor or Bidder for review of Substitution Request.

    a. Each review of a Substitution Request by the Architect will be billed to the submitter (Contractor or Bidder) at the current hourly rate on file at Architect’s office, two hour minimum for each review, whether approved or rejected.
    b. The Contractor will have a thirty-five (35) day period from the contract award date, in which to review the total contract documentation and issue any substitution or clarification requests to the Architect free of any financial charge.
    c. The Contractor will be expected to identify any omissions, anomalies, divergence or discrepancies in the Contract Documents within this time period and so inform the Architect, in writing.
    d. Any such omissions, anomalies, divergence or discrepancies not identified to the Architect within this period shall be deemed to be included within the bid sum and not subject to a Change Order by the Architect.

        1) The Architect may waive the review cost if, in his sole opinion, the submittal

was complete and the time involved in the review was not substantial, and it was in the best interest of the Owner.

2. Content of Request:

   a. Complete the attached Substitution Request Form (at the end of this Section), substantiating compliance of proposed substitution with Contract Documents.
   b. For products, attach to the Substitution Request Form:

      1) Product identification, including manufacturer's name and address.
      2) Manufacturer's literature including product description, performance and complete test data and reference standards.
      3) Samples.

   c. For construction methods, attach to the Substitution Request Form:

      1) Detailed description of proposed methods.
      2) Drawings illustrating methods.

   d. Attach to the Substitution Request Form an itemized comparison of proposed substitution with product or method specified.
   e. Provide long-term serviceability data comparing side by side analysis with specified materials.
   f. Provide manufacturer's experience in years with product with specific product formulation that is to be substituted.
   g. Provide certified warranty issued for this specific project including application--precisely.
   h. Provide system component analysis and statement the product is certified by Contractor to be compatible with all other items of assemblies where product/material/method is specified.

3. In making request for substitution, Contractor attests that:

   a. Contractor has personally investigated proposed product or method, and determined that it is equal or superior in all respects to that specified.
   b. Contractor will provide the same guarantee or warranty for substitution as for product or method specified.
   c. Contractor will coordinate installation of accepted substitution into Work, making such changes as may be required for Work to be complete in all respects.
   d. Contractor waives all claims for additional costs related to substitution which subsequently become apparent.
   e. Contractor will pay all cost of Consultant to interpret physical properties to compare substitution with specified product, if requested by Architect.
   f. Colors: The Contractor will match the color and/or finish available for the acceptable manufacturers listed in the Project Manual and/or Plans as a custom color and at no additional cost to the Owner.

4. Submit copies of Substitution Request prior to submittals required.

B. Acceptance of Substitutions

1. Procedures:

   a. The Contract is based on materials, equipment and methods described in the Contract Documents.
   b. Architect will consider proposals submitted in accordance with the Substitution Request.
   c. Substitutions will be considered when submitted within 35 days after date of Contract.
   d. Architect is solely responsible for judging the acceptance of substitutions.
   e. Substitute materials, equipment or methods shall not be used unless such substitution

has been specifically approved for this Work by the Architect and DSA.

f. Substitutions will not be considered if:

1) They are indicated or implied on product submittals without formal request submitted in accordance with Substitution Request.
2) Acceptance will require substantial revision of Contract Documents.
3) They are submitted more than 35 days after date of Contract, unless the specified or drawing item has been verified to be discontinued or is otherwise unavailable, or the Owner desires a cost savings for the product or system.

g. Substitutions may be subject to DSA approval if Structural Safety, Fire/Life Safety or Accessibility is impacted.

2. Time to review: Architect shall be allowed twenty-eight (28) calendar days to review each substitution submittal. In the event review cannot be completed and more information is requested by the Architect to complete this review, upon receipt of requested information, twenty-eight (28) calendar days will be allowed for additional review after receipt of requested and complete information.

PART 2 - PRODUCTS

2.1 SUBSTITUTION REQUEST FORM

See the form attached to the end of this Section.

PART 3 - EXECUTION

3.1 GENERAL

The attached form will be reproduced by the Contractor or any of his Subcontractors for any and all proposed substitutions. No other forms will be accepted.

SUBSTITUTION REQUEST

DATE: _____ Substitution Request # _____

ATTN: Jose Vargas
3434 Truxtun Ave Suite 240
Bakersfield, CA 93301

PROJECT: Dorm Plumbing Replacement

PROJECT#: 391-0144 NOA DATE: _____

We hereby submit for your consideration the following product/ manufacturer instead of the one(s) specified in the Project Manual/ Plans:

Item: _____ Section #: _____

Manufacturer: _____ Sheet #: _____

A. Reason for not providing specified product: _____

B. Proposed Substitution: _____

C. Cost shall be shouldered by the undersigned for changes to the building design, including engineering and detailing costs caused by the requested substitution. (Negative response maybe cause for rejection.)

☐ Yes ☐ No Explain: _____

D. Provide the following with Substitution Request Package:

*NI –Not Indicated;
N/A – Not Applicable

		Checklist for Architect			
		Yes	No	N/A	NI
1	Attached data includes product data, specifications, photographs, samples, code approvals and laboratory test data adequate for evaluation of request. All test data shall be complete with relevant test(s).	☐	☐	☐	☐
2	Attach data includes description of change to contract documents that proposed substitution will have. Include complete information on changes to drawing and/ or project manual which proposed substitution will require for proper installation.	☐	☐	☐	☐
3	Does proposed substitution affect dimensions shown on contract documents?	☐	☐	☐	☐
4	Does proposed substitution affect other trades and is it clear on the request form? Provide system component compatibilities.	☐	☐	☐	☐
5	Does proposed substitution affect local availability of service and maintenance including where nearest service representative is located and travel time to project site?	☐	☐	☐	☐
6	Attached cost data with detail breakdown of differential, either plus or minus.	☐	☐	☐	☐
7	If substitution is of higher quality, will this impact future replacement cost?	☐	☐	☐	☐
8	What is the impact of substitution on construction schedule?	☐	☐	☐	☐
9	Provide long term serviceability data compared with specified material.	☐	☐	☐	☐
10	Provide manufacturing experience in years with product with specified material product formation substituted.	☐	☐	☐	☐
11	Provide certified product warranty equal or greater to what is required for this project.	☐	☐	☐	☐
12	Is a consultant required to integrate physical properties to compare material/product?	☐	☐	☐	☐
13	Will the Substitute Manufacturer provide colors matching color selection of listed manufacturers in Project Manual?	☐	☐	☐	☐

E. The undersigned certifies that the following paragraphs, unless modified by attachments, are correct:

1. The undersigned will compensate the Architect, Architect's staff, and consulting engineers at Architect's rate per hour for changes required to the building design, including engineering design, detailing, and construction costs caused by the requested substitution. The Architect is herein defined as any of those firms or individuals listed by reference on the Directory, including all Consultants identified herein.
2. Attach all cost data with explanations if different from Specified or Drawing item. Include in that explanation a discussion on quality or proposed substitution and cost differential.
3. Attach all cost data with explanations if different from Specified or Drawing item. Include in that explanation a discussion on quality or proposed substitution and cost differential.
4. The undersigned will pay for any subsequent changes in incorporating the proposed substitution that were not apparent at the time of approval into the Work, including compensation to the Architect and consulting agent(s) as described in item 2 above.
5. The undersigned certifies that the substituted material/product/method is compatible with all the items in the system application's specified use in this project.
6. Failure to provide complete substitution package per above requirements are ground for rejection.

The undersigned states that the function, appearance and quality are equivalent or superior to the construction document item. The undersigned agrees to waive all claims for additional costs related to accepted substitution, including cost associated with changes to building design, engineering, or details, which may subsequently become apparent. (Negative response maybe cause for rejection.)

Submitted by: _____ Approved by General Contractor: _____
Signature

Signature: _____ Signed by: _____ Date: _____
Address: _____ Address: _____

Phone: _____ Fax: _____ Phone: _____ Fax: _____

ARCHITECT'S RESPONSE:

Substitution Request #: _____

Date: _____

Reviewed by: _____

☐ Accepted – Submit as construction submittal
☐ Accepted as noted – Submit as construction submittal
☐ Rejected – Use specified material
☐ Received too late – Use specified material

Remarks:

END OF SECTION 013300

SECTION 015000 - TEMPORARY FACILITIES

02/02/16

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 0 & 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section specifies requirements for temporary services and facilities, including utilities, construction and support facilities, security and protection.

B. Temporary construction and support facilities required include but are not limited to:

1. Field offices
2. Sanitary facilities, including drinking water
3. Waste disposal services
4. Construction aids and miscellaneous services and facilities
5. Temporary construction fence around buildings as required to secure and buildings and related work.

C. Security, protection and miscellaneous facilities required include but are not limited to:

1. Barricades, warning signs, lights
2. Enclosure fence at buildings

1.3 SUBMITTALS

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

B. Implementation and Termination Schedule: Submit a schedule indicating implementation and termination of each temporary utility within 15 days of the date established for commencement of the Work.

C. Temporary Facility Site Plan: Submit a scaled Site Plan indicating all locations of temporary offices, storage units, fences - both long and short-term - by phase.

1.4 QUALITY ASSURANCE

A. Regulations: Comply with industry standards and applicable laws and regulations if authorities having jurisdiction, including but not limited to:

1. California Building Code requirements – Chapter 33.
2. Health and safety regulations.
3. Utility company regulations.
4. Police, Fire Department and Rescue Squad rules.

5. Environmental protection regulations.
6. California State Accessibility standards, Title 24.
7. California Fire Code Chapters 5 & 14.

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.
2. Electrical Service: Comply with NEMA, NECA and UL standards and regulations for temporary electric service. Install service in compliance with California Electric Code (CEC).

C. The Contractor shall maintain, at the site, one (1) copy of the California Building Code, Title 19 and Title 24 (parts 1-5 & 9) of the California Code of Regulations.

1.5 PROJECT CONDITIONS

A. Temporary Utilities: Prepare a schedule indicating dates for implementation and termination of each temporary utility. At the earliest feasible time, when acceptable to the Owner, change over from use of temporary service to use of the permanent service.

B. 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.

C. Site Access: Shall be coordinated with the Director of Maintenance and Operations. All areas damaged by construction work shall be remedied to his satisfaction. Access by persons with disabilities shall be maintained during construction. Architect shall approve all temporary persons with disabilities access to project area prior to implementing any work.

D. Advertising Matter: No advertising matter of any kind will be allowed on any part of the work in the field unless approved by the Architect and the Owner. Contractor shall provide 36" x 48" bulletin board for required posted materials viewable by all workers.

E. Drawings and Specifications at the Site: The Contractor shall maintain at the site for the Owner one copy of all Drawings, Specifications, Addenda, Approved Shop Drawings, Change Orders and other modifications, in good order and marked to record all changes made during construction. These shall be available to the Architect. The Drawings, corrected to record all changes during construction, shall be delivered to him for the Owner upon completion of the Work. See also Project Closeout, Section.

PART 2 - PRODUCTS

2.1 MATERIALS

A. General: Provide new materials; if acceptable to the Architect, undamaged previously used

materials in serviceable condition may be used. Provide materials suitable for the use intended.

B. Lumber and Plywood: Comply with requirements in Division-6 Section "Rough Carpentry."

1. For signs and directory boards, provide exterior type, Grade B-B High Density Concrete Form Overlay Plywood conforming to PS-1, of sizes and thickness indicated.
2. For fences and vision barriers, provide exterior type, minimum 3/8" thick plywood.
3. For safety barriers, sidewalk bridges and similar uses, provide minimum 5/8" thick exterior plywood.

C. Paint: Comply with requirements of Division-9 Section "Painting."

1. For sign panels and applying graphics, provide exterior grade alkyd gloss enamel over exterior primer.

D. Tarpaulins: Provide waterproof, fire-resistant, UL labeled tarpaulins with flame-spread rating of 15 or less. For temporary enclosures provide translucent nylon reinforced laminated polyethylene or polyvinyl chloride fire retardant tarpaulins.

E. Water: Provide potable water approved by local health authorities.

F. Open-Mesh Metal Fencing: Provide 11-gage, galvanized 2-inch, chain link fabric fencing 6-feet high with galvanized wire top strand and galvanized steel pipe posts, 1-1/2" I.D. for line posts and 2-1/2" I.D. for corner posts.

G. Open-Mesh Plastic Fencing: Plastic 2-inch fabric fencing, 6 feet high with galvanized steel pipe post, 1-1/2" O.D. for line and corner post.

2.2 EQUIPMENT

A. General: Provide new equipment; if acceptable to the Architect, undamaged, previously used equipment in serviceable condition may be used. Provide equipment suitable for use intended.

B. Water Hoses: Provide 3/4" heavy-duty, abrasion-resistant, flexible rubber hoses 100 ft. long, with pressure rating greater than the maximum pressure of the water distribution system; provide adjustable shut-off nozzles at hose discharge.

C. Electrical Outlets: Provide properly configured NEMA polarized outlets to prevent insertion of 110-120 volt plugs into higher voltage outlets. Provide receptacle outlets equipped with ground-fault circuit interrupters, reset button and pilot light, for connection of power tools and equipment.

D. Electrical Power Cords: Provide grounded extension cords; use "hard-service" cords where exposed to abrasion and traffic. Provide waterproof connectors to connect separate lengths of electric cords, if single lengths will not reach areas where construction activities are in progress.

E. Lamps and Light Fixtures: Provide general service incandescent lamps of wattage required for adequate illumination. Provide guard cages or tempered glass enclosures, where exposed to breakage. Provide exterior fixtures where exposed to moisture.

F. Heating Units: Provide temporary heating units that have been tested and labeled by UL, FM or another recognized trade association related to the type of fuel being consumed.

G. Temporary Offices: The General Contractor shall provide and maintain during progress of the work a field office building office shall be equipped with one window and one door.

1. Contractor shall provide a minimum 10’ x 20’ minimum field office for Contractor staff and project meetings.
2. Furnish and equip offices as follows:

H. Temporary Toilet Units: Provide self-contained single-occupant toilet units of the chemical, aerated recirculation, or combustion type, properly vented and fully enclosed with a glass fiber reinforced polyester shell or similar nonabsorbent material. Provide a ratio of one (1) toilet per ten (10) workers on job site, but not less than two (2) toilets.

I. First Aid Supplies: Comply with governing regulations.

J. Fire Extinguishers: Provide hand-carried, portable UL-rated, class "A" fire extinguishers for temporary offices and similar spaces. In other locations provide hand-carried, portable, UL-rated, class "ABC" dry chemical extinguishers, or a combination of extinguishers of CCR recommended classes for the exposures.

1. Comply with Title 19 CCR Division 1, Chapter 3 for classification, extinguishing agent and size required by location and class of fire exposure.

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.
2. Provide adequate capacity at each stage of construction. Prior to temporary utility availability, provide trucked-in services.
3. 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.
4. The Contractor shall provide and pay for telephone services in the offices. The Architect, or his representative and inspector shall have unrestricted use of the phone for business

purposes connected with this project.

B. Water Service: Install water service and distribution piping of sizes and pressures adequate for construction until permanent water service is in use.

1. Sterilization: Sterilize temporary water piping prior to use.
2. Provide temporary water meter where Owner's water will be used.
3. Fire access per CFC 1410.1.
4. Fire water service to be active prior to arrival of combustible materials on site per CFC Sections 501.4 and 1412.1.

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 transformers, overload protected disconnects, automatic ground-fault interrupters and main distribution switch gear.

1. Except where overhead service must be used, install electric power service underground.
2. Where existing electrical power is available, owner will pay for usage of electrical power on site for contractor’s use during period of construction. Contractor is responsible for all connection/disconnections and returning all items to original conditions.

D. Temporary Lighting: Whenever overhead floor or roof deck has been installed, provide temporary lighting with local switching.

1. Install and operate temporary lighting that will fulfill security and protection requirements, without operating the entire system, and will provide adequate illumination for construction operations and traffic conditions.

3.3 TEMPORARY CONSTRUCTION AND SUPPORT FACILITIES INSTALLATION

A. Locate field offices, storage sheds, sanitary facilities and other temporary construction and support facilities as directed by Architect.

1. Maintain temporary construction and support facilities until completion.

B. Temporary Heat: Provide temporary heat required by construction activities, for curing or drying of completed installations or protection of installed construction from adverse effects of low temperatures or high humidity. Select safe equipment that will not have a harmful effect on completed installations or elements being installed. Coordinate ventilation requirements to produce the ambient condition required and minimize consumption of energy.

C. Heating Facilities: Except where use of the permanent system is authorized, provide vented self-contained LP gas heaters with individual space thermostatic control.

1. Use of gasoline-burning space heaters, open flame, or salamander type heating units is prohibited.

D. Field Offices for General Contractor: Keep the office clean and orderly for use for project meetings. Field Office shall be cleaned weekly.

E. Toilets: Use of the Owner's existing toilet facilities will not be permitted.

F. Toilets: Install self-contained toilet units. Shield toilets to ensure privacy. Use of pit-type privies will not be permitted.

G. Wash Facilities: Install wash facilities supplied with potable water at convenient locations for personnel involved in handling materials that require wash-up for a healthy and sanitary condition. Dispose of drainage properly. Supply cleaning compounds appropriate for each condition.

H. Collection and Disposal of Waste: 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.

I. Refuse: Refuse barrels shall be provided for workmen's lunch boxes, papers and debris. All rubbish shall be removed from the premises.

3.4 SECURITY AND PROTECTION FACILITIES INSTALLATION

A. Barricades, Warning Signs and Lights: Comply with standards and code requirements for erection of structurally adequate barricades. Paint with appropriate colors, graphics and warning signs to inform personnel and the public of the hazard being protected against. Where appropriate and needed provide lighting, including flashing red or amber lights. The Contractor shall provide, install and maintain for the duration of the work, as required, all lawful or necessary barricades and railings, lights, warning signs and signals, and shall take all other precautions as may be required to safeguard persons, the site and adjoining property, including improvements thereon, against injuries and damages of every nature whatsoever. The Contractor shall not obstruct required exitways of adjacent structures.

B. Enclosure Fence: When excavation begins, install an enclosure fence with lockable entrance gates. Locate where indicated, or enclose the entire site or the portion determined sufficient to accommodate construction operations. Install in a manner that will prevent people, dogs and other animals from easily entering the site, except by the entrance gates.

1. Provide open-mesh, chain-link fencing with posts set in a compacted mixture of gravel and earth.

C. Security Enclosure and Lockup: Install substantial temporary enclosure of partially completed areas of construction. Provide locking entrances to prevent unauthorized entrance, vandalism, theft and similar violations of security.

1. Storage: Where materials and equipment must be stored, and are of value or attractive for theft, provide a secure lockup. Enforce discipline in connection with the installation and release of material to minimize the opportunity for theft and vandalism.

D. Environmental Protection: Provide protection, operate temporary facilities and conduct construction in ways and by methods that comply with environmental regulations, and minimize the possibility that air, waterways and subsoil might be contaminated or polluted, or that other undesirable effects might result. Avoid use of tools and equipment, which produce harmful noise. Restrict use of noise making tools and equipment to hours that will minimize complaints from persons or firms near the site.

1. Dust Control: The Contractor shall exercise precautionary measures to minimize dust emissions which will include, but shall not be limited to, periodic sprinkling or wetting of the site, minimum of every day except as allowed by Architect. The Contractor has the option if using a dust palliative as specified in Caltrans 1981 Edition, Section 18.

    a. Fugitive dust shall be contained during earthwork activities by continuous sprinkling or wetting, as required, to bind soil to prevent fugitive dust. Roadways, walkways, construction areas and similar areas impacted by this project shall be maintained to prevent fugitive dust throughout the duration of project.
    b. All unpaved haul roads shall be watered a minimum of twice per day, not limited to project site.

2. Speed limit of vehicles on site shall not exceed 15 miles per hour and shall be under supervision of Contractor's Safety Representative, who shall evaluate field conditions and establish less speed as conditions change.
3. Storm Water Prevention: Provide a Storm Water Prevention Plan as required by the required governing agency. Provide a Storm Water Prevention Plan for all construction activities of this project. Submit to governing agency and comply with all agency requirements. Comply and provide all mitigation measures in the governing agency approved Storm Water Prevention Plan. Coordinate plan with required HCP measures.

E. Enclosure fence of construction areas outside Contractor's staging area/main working compound, where construction activity is beyond enclosure of construction area and duration of work in that area is 30 days or less, provide open-mesh plastic fencing with post and barricades. Fencing shall be maintained equal to enclosure fence above with gated access.

3.5 OPERATION, TERMINATION AND REMOVAL

A. Supervision: Enforce strict discipline in use of temporary facilities. Limit availability of temporary facilities to essential and intended uses to minimize waste and abuse.

B. Maintenance: Maintain facilities in good operating condition until removal. Protect from damage by freezing temperatures and similar elements.

1. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation and similar facilities on a 24-hour day basis where required to achieve indicated results and to avoid possibility of damage.
2. Protection: Prevent water filled piping from freezing. Maintain markers for underground lines. Protect from damage during excavation operations.

C. Environmental Condition: This project will be occupied during construction. The Contractor shall provide fresh air to construction space total 1500 cfm for work space. Temporary duct modifications shall be made to prevent discharge of construction air into occupied spaces and maintain HVAC to occupied spaces. HVAC at construction area shall have a negative balance to prevent infiltration of construction air into any occupied areas. Construction area shall be aired out for 96 hours continually after all construction is complete and no material will be added that will cause vapors. After being aired out Contractor shall refit changes made to occupied spaces during construction and re-balance system to engineer's requirements.

D. 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 Owner reserves the right to take possession of Project identification signs.
2. At Substantial Completion, clean and renovate permanent facilities that have been used during the construction period, including but not limited to:

    a. Replace air filters.
    b. Replace significantly worn parts and parts that have been subject to unusual operating conditions. (Unusual conditions shall be defined as 10% of equipment life.)
    c. Replace lamps that are burned out or noticeably dimmed by substantial hours of use (substantial shall be defined as 10% of bulb life of accepted industry average hours).

END OF SECTION 015000

SECTION 017700 - PROJECT CLOSEOUT

08/07/2024

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division 0 &1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section specifies administrative and procedural requirements for project closeout, including but not limited to:

1. Project Completion and Acceptance
2. Inspection procedures.
3. Project record document submittal(s).
4. Operating and maintenance manual submittal(s).
5. Submittal of warranties.
6. Statement of extra materials delivered to Owner, accepted and signed by Owner
7. Training attendees form
8. Final cleaning.

B. Closeout requirements for specific construction activities are included in the appropriate Sections in Divisions 0 through 33.

1.3 PROJECT COMPLETION

A. Contractor shall notify the Architect in writing when the project is acceptably completed; all work scope is done and ready for Contractor to make a list of items to be corrected.

B. Contractor shall make a list of items to be corrected and finish any items discovered incomplete. These items shall be completed and corrected prior to Architect and Consultants preparing a Final Inspection and Punch List Preparation. Contractor shall notify Architect in writing when all items are completed and corrected as well as items completed and corrected from Contractor list of items previously prepared.

C. Architect's field representatives (Architectural, Mechanical, Electrical, and other consultants) will make a field survey of the project to confirm that it has reached a state of completion, and items for "B" above have been done, in order to eliminate an unreasonably long Punch List on final inspection.

1. All items in scope of work have been completed and accepted by Contractor and Project Inspector.
2. All building systems are operational, tested and commissioned.
3. Cleaning of building, grounds and related items completed except when approved by architect in writing in advance of field survey. Contractor’s temporary measures may be left in place until final demobilization but a condition on removal for final payment processing.
4. Contractor to provide a written status update of project closeout check list.

D. If not ready, the Architect will give the Contractor a written brief summary of what must be

done for the project to be considered complete, enough for the Punch List preparation.

E. When, in the opinion of the Architect, the job is ready for the Punch List preparation, a Punch List of items requiring completion and/or correction will be prepared. (This Punch List will be made as specific and complete as possible, and will include the listing of all specified closing items required of the Contractor, such as Record Drawings, maintenance manuals, written guarantees, etc.) Any items observed or noted subsequent to Punch List preparation, shall also be corrected prior to re-inspection, unless the Architect determined, in writing, that any such items properly fall into the category of work to be corrected during the warranty/guarantee period.

1. Architect's Punch List preparation will be scheduled and respective contractors, sub-contractors and vendors shall be present during the Punch List inspection. Sub-Contractors, contractors and vendors will be required to show operational status of items in project scope of each respective discipline.
2. Mechanical, Electrical, and other consultants Punch List preparation will be scheduled and respective sub-contractor, contractors and vendors shall be present during the Punch List inspection. Sub-Contractors, contractors and vendors will be required to show operational status of items in project scope of each respective discipline.
3. All Punch List items shall be completed and/or corrected before Contractor calls for Punch List re-inspection.

   a. Architect shall be notified in writing by Contractor when all Punch List items are complete and project is ready for punch list back check by architect and consultants. Architect shall schedule punch list back check with contractor within 10 calendar days from receipt of written notice from Contractor.
   b. Architect will allow contractor two, (2), punch list back check visits of all items. Any additional site visits for items not completed and acceptable to Architect after second site visit will charged to the contractor as a negative change order for time spent by Architect to do re-inspections and office related work including reimbursable expenses incurred due to additional site visits.

1.4 PROJECT ACCEPTANCE AND NOTICE OF COMPLETION

A Notice of Completion will not be prepared nor moved forward for Owner approval until all of the following are complete:

1. Project Closeout 100% complete.
2. Punch list items 100% complete.
3. Record documents approved and delivered.
4. All warranties and guarantees have been delivered and accepted by Owner and Architect.
5. Training complete.
6. The contractor(s) final verified report is filed with the Division of State Architect of the Department of General Services.
7. OWNER is able to occupy all portions of the project as intended on Construction Documents.
8. Contractor in direct contract with the owner upon completion of work shall execute certifications as follows:

   a. Asbestos Certification shall be used for documentation of non-asbestos materials used in project.
   b. PCB Certification shall be used for documentation of non-PCB materials used in project.

c. Lead Certification shall be used for documentation of non-lead materials used in project.
d. In-Service Certification Forms shall be used for all documentation of in-service activities. Copies of forms shall be included in maintenance and operation manuals.
e. Prevailing Wage Certification shall be used for conformation/certification that prevailing wage were paid for this project.
f. Affidavit of Payment of Debts and Claims and Release of Stop Notices shall be notarized and submitted as part of the project closeout requirement.
g. Extra Materials Receipt shall be signed by College M&O Director.
h. Training Attendees Form shall be completed by College staff attendees and acknowledged by the M/O Director.

B. Notice of Completion shall be prepared and approved by Owner prior to recording. The official project acceptance date shall be the date of Owner acceptance of the project and authorization to filing of the Notice of Completion. Owner shall record Notice of Completion within 10 days of acceptance of project as being complete. All warranties start dates will be Date of recordation of Notice of Completion.

C. The project shall be accepted by the Owner who shall authorize after acceptance of the project the subsequent filing of the Notice of Completion. The final payment shall be made thirty-five (35) days from the date of recordation of the Notice of Completion, provided that: The Contractor shall furnish satisfactory evidence that all claims for labor and materials have been paid and that no claims shall have been presented to the Owner by any person or persons based upon any act or omission of the Contractor, and no Stop Notices or claims shall have been filed against said work or the property whereon it was done.

1. The Contractor in direct contract with the Owner must record and file with the Owner an Affidavit of Payment of Debts and Claims and Release of Stop Notices prior to request for project acceptance is considered by the Board of Trustees. By this document, the contractor hereby certifies that on date of document recordation, he/she has been paid in full less retainage for all materials and equipment furnished, for all labor and services performed, and for all known indebtedness and claims against the undersigned for damages arising in any manner on or against the Project, its land, improvements, and equipment of any kind.
2. All others not limited to sub-contractors, lower tier contractors, suppliers, vendors and others providing services, materials, equipment and related items must record their liens and serve owner stop notice within thirty (30) days of the date the Notice of Completion is recorded to place and person indicated in project manual herein. (Civil Code §3116).

1.5 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 black line white-prints of Contract Drawings and Shop Drawings. 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 erasable pencil.
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. Submit one copy of record drawing for Architect's review.

    a. Show all underground utility locations and routings by horizontal and vertical dimensions.
    b. Show all overhead utility locations and routings by horizontal and vertical dimensions.
    c. Clearly indicate at each affected detail and other Drawings a full description of changes made during construction. Call attention to each entry by drawing a "cloud" around the area(s) affected.

5. Once reviewed and approved by the Architect, 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. Provide Owner with two (2) copies black and white, original (1), original red-lined with changes and two flash drives of scanned black and white copies.

C. Record Product Data: Maintain one copy of each Product Data submittal. Mark these documents to show significant variations in actual Work performed in comparison with information submitted. Include variations in products delivered to the site, and from the manufacturer's installation instructions and recommendations. Give particular attention to concealed products and portions of the Work which cannot otherwise be readily discerned later by direct observation. Note related Change Orders and mark-up of record drawings and Specifications.

1. Upon completion of mark-up, submit one complete set of record Product Data to the Architect for the Owner's records.

D. Record Sample Submitted: Immediately prior to the date or dates of Substantial Completion, the Contractor will meet at the site with the Architect and the Owner's personnel to determine which of the submitted Samples that have been maintained during progress of the Work are to be transmitted to the Owner for record purposes. Comply with delivery to the Owner's Sample storage area.

E. Miscellaneous Record Submittals: Refer to other Specification Sections for requirements of miscellaneous record-keeping and submittals in connection with actual performance of the Work. Immediately prior to the date or dates of Substantial Completion, complete miscellaneous records and place in good order, properly identified and bound or filed, ready for continued use and reference. Submit to the Architect for the Owner's records.

1.6 PROJECT CLOSEOUT BINDER(S) SUBMITTAL

A. Submit requirements per project manual section(s) one copy in a binder(s) and two (2) copies of scanned data in binders on flash drives. See Project Closeout form at the end of this section for additional requirements. Note that this form shall be updated with additional materials and sections once Contractor starts submitting closeout documents to include issued addenda, RFPs, FCDs and other items added in the bid document during construction. All required number of years for warranty shall be provided by the Contractor. In the event this conflicts with manufacturer's warrant, more restrictive will prevail. If manufacturer will not meet requirements, Contractor shall take full responsibility for additional warranty requirement above what manufacturer will provide.

1. Binder(s)

    a. Part 1 - Technical Sections

        1) Organize sections items per CSI Format descending order.

    b. Part 2 - General Requirement items

        1) Tab in order per project list herein at end of this section.

2. Binder(s) shall have cover sheet inserted in front face and side label. Cover sheet shall have the following information:

    a. Project name
    b. College name
    c. Date of Notice of Completion
    d. Labeled “Part 1”, in the event of multiple binders for a Part, add volume number and list sub-binders on title sheet with name of each specific binder.
    e. General Contractor’s name.
    f. Index of items in binder.

3. Labeled divider tabs shall be provided for each section as listed on index on cover.
4. Each applicable section will have the following documents in order:

    a. Subcontractor’s Warranty
    b. Product data
    c. Manufacturer’s warranty

        1) Each installed equipment, especially for Divisions 21, 22, 23 and 26, shall have warranties from manufacturers with project name stated in the certificate. All forms submitted to the manufacturers to secure warranty shall be enclosed as part of project closeout.

    d. Proposal for continuing services and/or post construction inspection dates – if applicable
    e. Tests/ reports/ certifications/ agreement between Contractor/ Manufacturer/ Subcontractor to repair and replace
    f. Shop drawings
    g. Cleaning data
    h. Receipt of extra material acceptance by the Owner – see form at the end of section
    i. Training attendees’ form – see form at the end of section
    j. Other document required:

        1) Maintenance data
        2) Emergency Instructions
        3) Spare parts lists
        4) Wiring diagram
        5) Inspection procedure
        6) Recommended “turn around cycles”
        7) Lubricants, special tools
        8) Control sequences
        9) Hazards

10) Fixture lamping schedule
11) Proof of training for equipment operation with list of attendees from College staff

C. Submit general requirements in another binder.

1. Binder shall have a cover sheet and side label. Cover shall have the following information:

a. Project name
b. College name
c. Date of Notice of Completion
d. Labeled “Part 2”
e. General Contractor’s name

2. Binder shall have table of contents. This binder will contain the following:

a. Demobilization information with General Contractor’s Letterhead and signed by Project Manager.

1) Indicate dated for the following information:

a) Removal of temporary office
b) Removal of temporary fence barricades
c) Disconnect/safing temporary utilities
d) Repair temporary staging to pre-construction or specified condition
e) Removal of temporary toilets
f) Removal of miscellaneous construction debris/ excess materials
g) Removal of project sign, deliver to Owner if requested
h) Removal of miscellaneous project signs
i) Removal of trash dumpster

b. Instructions for Operating equipment signed off by College Staff (see Project Closeout form) with General Contractor’s Letterhead and signed by Project Manager.
c. Certification of no asbestos used or substituted
d. Certification of no lead containing products used or substituted
e. Certification of no PCB containing products used or substituted
f. Certification of substitutions made on project, if none state so
g. All substitution products shall be listed and shall indicate substitution number and date approved by the Architect.
h. Notarized affidavit of payment of debts and claims and release of stop notices
i. Prevailing wage reports/ documents
j. Consent of surety to final payment
k. Statement of final liquidated damages settlement
l. Final utility meter readings signed by Project Inspector

1.7 PROJECT CLOSEOUT NOTIFICATION, SURETY NOTIFICATION

A. If requested in writing, the contractor will be given a project Close-out check list of items to be completed prior to project being accepted as complete. Contractor shall start project closeout no

later than 90% completion of project and be complete prior to project punch list preparation/walk. This is contractor's first notice. Notice of Completion will not be filled until project closeout is complete.

B. The contractor will be given a 20 calendar day notification that the project closeout is incomplete and notification that owner will complete project closeout work incomplete and assess contractor additional architectural and engineering fees incurred completing work not complete and per construction documents. Copy will be sent to surety.

C. The contractor will be given a final 10-day notice to complete all project closeout items. The estimated amount of costs will be indicated therein that the owner will be spending for completing the project closeout. Items done by the owner and additional architect's fees will be deducted from funds due contractor. Copy will be sent to surety.

D. If project closeout is not complete after deadline in Item "C" above, the notice of completion will be filed listing incomplete items. Owner will complete project closeout and deduct cost incurred from funds held. Balance of funds will be distributed per Contract Documents. Surety will be notified of actions taken.

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.
5. Lubricants.
6. Fuels.
7. Identification systems.
8. Control sequences.
9. Hazards.
10. Cleaning.
11. Warranties and bonds.
12. 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 Certification of Notice of Completion.

   a. Remove labels that are not permanent labels.
   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. Removal of Protection: Remove temporary protection and facilities installed for protection of the Work during construction.

D. 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.

3.3 FORMS

A. In-Service Certification Forms shall be used for all documentation of in-service activities. Copies of forms shall be included in maintenance and operation manuals.

B. Asbestos Certification shall be used for documentation of non-asbestos materials used in project.

C. PCB Certification shall be used for documentation of non-PCB materials used in project.

D. Lead Certification shall be used for documentation of non-lead materials used in project.

E. Prevailing Wage Certification shall be used for conformation/certification that prevailing wage were paid for this project.

F. Affidavit of Payment of Debts and Claims and Release of Stop Notices shall be notarized and submitted as part of the project closeout requirement.

G. Project Closeout Liquidated Damages Contract Sum-Days Calculation shall be used for liquidated damages computation.

H. Extra Materials Receipt shall be used for documentation of extra materials required by construction document; to be submitted to College M&O Director.

I. Training Attendees Form shall be used for documentation of College staff that participated in the training scheduled and coordinated by the Contractor.

IN-SERVICE CERTIFICATION

Specification Section No._____

Project: Dorm Plumbing Replacement

Date: _____

Owner: WHCC

Architect: AP Architects

File No: _____

Contractor: _____

Project No: 391-0144

Inspector: _____

DSA Application No: _____

In-Service Conducted By:_____

Materials Reviewed: (Check Applicable Boxes)

- ☐ Record Drawings
- ☐ Warranties
- ☐ Maintenance Agreement
- ☐ Operation & Maintenace Manuals
- ☐ Special Tools and Parts
- ☐ Safety Procedures
- ☐ Cleaning Procedures
- ☐ Identification Systems
- ☐ Start-Up
- ☐ Control Sequences
- ☐ Shut Down
- ☐ Controls Manipulation
- ☐ Emergency Procedures
- ☐ Noise/Vibration Adjustment
- ☐ Effective Energy Utilization

Attendees (Please print name and sign below)

1. District Facilties Representative _____
2. Site Representative _____
3. District Maintenance Representatives _____ (Plumbing) _____ (Mechanical) _____ (Electrical) _____ (Grounds)
4. Others Present (P.I. General Contractor) _____ _____

Meeting Date_____ Time of Start_____ Time of Completion_____

I certify that the above named in-service covered all aspects of the specialty for which it was convened.

Signature _____ Date _____

ASBESTOS CERTIFICATION

Specification Section No._____

Project:	Dorm Plumbing Replacement	Date:	
Owner:	WHCC		
Architect:	AP Architects	File No:	
Contractor:		Project No:	391-0144
Inspector:		DSA Application No:	

To: _____

From: _____

Subject: **Asbestos Containing Building Materials Letter**

I hereby certify that, to the best of my knowledge, the materials furnished and/or installed

by _____ or its
(Name of Contractor)

subcontractor for _____ located at
(Name of Project)

_____ do not contain Asbestos-
(Project Address)

Containing Building Materials.

Signed: _____

Position: _____

Dated: _____

PCB CERTIFICATION

Specification Section No._____

Project: Dorm Plumbing Replacement

Date: _____

Owner: WHCC

Architect: AP Architects

File No: _____

Contractor: _____

Project No: 391-0144

Inspector: _____

DSA Application No: _____

To: _____

From: _____

Subject: **PCB-Containing Building Materials Letter**

I hereby certify that, to the best of my knowledge, the materials furnished and/or installed

by _____ or its
(Name of Contractor)

subcontractor for _____ located at
(Name of Project)

_____ do not contain PCB-
(Project Address)

Containing Building Materials.

Signed: _____

Position: _____

Dated: _____

LEAD CERTIFICATION

Specification Section No._____

Project: Dorm Plumbing Replacement

Date: _____

Owner: WHCC

Architect: AP Architects

File No: _____

Contractor: _____

Project No: 391-0144

Inspector: _____

DSA Application No: _____

To: _____

From: _____

Subject **Lead Containing Building Materials Letter**

I hereby certify that, to the best of my knowledge, the materials furnished and/or installed

by _____ or its
(Name of Contractor)

subcontractor for _____ located at
(Name of Project)

_____ do not contain Lead-
(Project Address)

Containing Building Materials.

Signed: _____

Position: _____

Dated: _____

PREVAILING WAGE CERTIFICATION

Project:	Dorm Plumbing Replacement	Date:	
Owner:	WHCC		
Architect:	AP Architects	File No:	
Contractor:		Project No:	391-0144
Inspector:		DSA Application No:	

To: _____

From: _____

Subject **Prevailing Wage Certification Letter**

I hereby certify that, all payments made to employees of Contractor and subcontractors are based on prevailing wage per Article 2 Chapter 1, Part 7, Division 2 of the California Labor Code and all contractors and subcontractors did furnished electronic certified payroll records directly to the Labor Commissioner (aka Division of Labor Standards Enforcement). Prevailing wage records for each pay request processed are on file and available upon request. Contact _____
(Name of Contact Person)

with _____ to request copies. Contact number is
(Contractor's Name)

_____ and office address is located at _____
(Office number)

_____.
(Contractor's Address)

Signed: _____

Position: _____

Dated: _____

AFFIDAVIT OF PAYMENT OF DEBTS AND CLAIMS AND RELEASE OF STOP NOTICES

Project:	Dorm Plumbing Replacement	Date:	
Owner:	WHCC		
Architect:	AP Architects	File No:	
Contractor:		Project No:	391-0144
Inspector:		DSA Application No:	

By this instrument, the undersigned hereby certifies that on this date, he/she has been paid in full less retainage for all materials and equipment furnished, for all labor and services performed, and for all known indebtedness and claims against the undersigned for damages arising in any manner on or against the PROJECT, its land, improvements, and equipment of any kind. Therefore, the undersigned does hereby waive and/or release any and all claims and/or stop notices against the PROJECT as of the _____ day of _____, in the year of 20____.

COMPANY: _____

BY: _____

TITLE: _____

STATE OF _____

COUNTY OF _____

Before me the undersigned authority on this date personally appeared _____, Known to me to the person whose name is subscribed to the foregoing instrument, and being first duly sworn, acknowledged to me that he executed the same for the purposes and consideration therein expressed and declared to me that the statements contained therein are true.

Sworn and subscribed to before me this ____ day of _____ year of 20____.

_____
Notary Public in and for said
State and County

My commission expires: _____

PROJECT CLOSEOUT LIQUIDATED DAMAGES CONTRACT SUM-DAYS CALCULATION

Project: Dorm Plumbing Replacement
Date:

Owner: WHCC
Architect: AP Architects
File No:
Contractor:
Project No: 391-0144
Inspector:
DSA Application No:

Contract Days Actual				
	Original Contract Duration (Calendar Days)			
	Approved Change Orders (Calendar Days)			
	Adjusted Contract Days			
Liquidated Damages				
	Project Start Date			
	Project Completion Date		Actual Construction Days	
	Liquidated Damages/Day		Difference Actual - Actual	
	Liquidated Damages (Dollars)			
Contract Sum				
	Original Contract Sum (Dollars)			
	Approved Change Orders (Dollars)			
	Adjusted Contract Sum			
	Paid to Date			
	Retention withheld to date			
	Total Paid to date including Retention			
Adjusted Contract Sum				
	Balance Contract Sum less Total Paid to Date/Retention			
	Liquidated Damages			
	Testing/Inspections Back-Charges			
	Unused Allowances			
	Special Holdouts			
	Balance			
Stop Notices				
	Stop Notice amount x $150%			
	Total			

EXTRA MATERIALS RECEIPT

Specification Section No._____

Project: Dorm Plumbing Replacement

Date: _____

Owner: WHCC

Architect: AP Architects

File No: _____

Contractor: _____

Project No: 391-0144

Inspector: _____

DSA Application No: _____

List of Materials to surrender to M&O office/Director:

Item #	Qty.	Description

I certify that the above extra materials are all in good condition and meet the required quantity per construction documents.

Submitted by:

Signature _____ Date _____

Received by:

Signature _____ Date _____

TRAINING ATTENDEES FORM

Specification Section No._____

Project: Dorm Plumbing Replacement

Date: _____

Owner: WHCC

Architect: AP Architects

File No: _____

Contractor: _____

Project No: 391-0144

Inspector: _____

DSA Application No: _____

Subject: _____

Location: _____

Description of Training: _____

List of Attendees:

Name	Department	Signature

Submitted by:

Signature _____ Date _____
Contractor

Acknowledged by:

Signature _____ Date _____
Project Inspector

PROJECT CLOSEOUT CHECKLIST

pub.rev.04/05/04

PROJECT: Dorm Plumbing Replacement

PROJECT NO: 391-0144

CONTRACTOR: _____

STATUS: _____

- **X Initial request for documents**
- **. Incomplete see below**
- **. Accepted as complete**
- **Date completed:**

DATE INITIAL REQUEST: _____

DATE DUE BACK: _____

LEGENDS:

- **C** - Contractor
- **S** - Subcontractor
- **O** - Owner
- **A** - Architect
- **E** - Engineer
- **PI** - Project Inspector
- **M** - Manufacturer

PROJECT CLOSEOUT

PART 1- General Closeout Items

Provide information as required in the Project Manual. See checklist below for items required. Tabulate each section and provide information required.

1. Project identification sheets
   a. Project name, location, date of start/completion of construction
   b. Copy of Completed Project Closeout Checklist
   c. Copy of Notice of Completion
2. Project contacts, names, address, phone numbers, fax number, email and web sites.
   a. General contractor
   b. Sub-contractors/lower tier sub-contractors
      1) List by CSI format
   c. Suppliers direct to Contractor
3. Project Warranties
   a. List by CSI format
4. Maintenance Agreements
   a. List by CSI format
5. Record Drawings flash drive
   a. Plastic sleeve with record drawings scanned to flash drive.
6. Forms
   a. In-Service Certification Forms shall be used for all documentation of in-service activities. Copies of forms shall be included in maintenance and operation manuals.
   b. Asbestos Certification shall be used for documentation of non-asbestos materials used in project.
   c. PCB Certification shall be used for documentation of non-PCB materials used in project.
   d. Lead Certification shall be used for documentation of non-lead materials used in project.
   e. Affidavit of Payment of Debts and Claims and Release of Stop Notices shall be notarized and submitted as part of the project closeout requirement.
   f. Affidavit of Substitutions shall be notarized and submitted as part of the project closeout requirement.
   g. Extra Materials Receipt shall be used for documentation of extra materials required by construction. document; to be submitted to M&O Director.
      1) Provide form for each material by Technical Section
   h. Training Attendees Form shall be used for documentation of College staff that participated in the training scheduled and coordinated by the Contractor.
      1) Provide form for each material by Technical Section.

PART 2 - Technical Section Close out items

Provide information as required in technical section of the Project Manual. See checklist below for items required. Tabulate each section and provide information required. Warranty information will be provided in Binder one under tab 3 and also in each technical section. Information requested herein shall be the minimum requirements.

SECTION	SECTION NAME	BY	DATE COMPLETED
018000	CONSTRUCTION WASTE REDUCTION/ DISPOSAL & RECYCLING		
	Construction Waste Management Plan	C	
	Construction Waste Management Worksheet(s)	C	
	Construction Waste Management Acknowledgement	C	
095123	ACOUSTIC TILE CEILING		
	Extra material 2% (see form)	S	
099000	PAINTING		
	Extra materials unopened containers - accepted and signed by M&O	S	
230000	HVAC		
	Operating instructions & maintenance procedure	S	
	Servicing instructions	S	
	10-year warranty certificate of boiler with serial number	S	
	Air Handlers' warranty with serial number	S	
	Test & Balance report approved by Mechanical Engineer	S	
	Complete wiring and control diagrams for all equipment	S	
	Hydronic piping tests approved by the Project Inspector	S	
230900	INSTRUMENTATION AND CONTROL FOR HVAC		
	Operating instructions & maintenance procedure	S	
	Training Schedule (see form)	S	
	Servicing instructions	S	
	3-year installer's warranty	S	
	Statement of Owner's acceptance and approval by Mechanical Engineer	S	

PART 3 - Specific Close out items

RECORD DRAWINGS –Full size drawings.

Provide original red lined record drawings, full size and one (1) black and white copy, full size. Provide two copies, (2) on flash drive of digitally color scanned record drawings.

PREVAILING WAGE CERTIFICATION:

Prevailing Wage Certification: Statement shall be used for conformation/certification that prevailing wage were paid for this project.	C	

PART 4 – Final Payment

FINAL PAYMENT:

The following items shall be completed and accepted prior to acceptance of final pay request and consideration for payment by owner. All the above items shall be complete and accepted by Architect and Owner

Affidavit of Payment of Debts and Claims and Release of Stop Notices	C	
Consent of Surety to Final Payment	C	

Final Liquidated Damages settlement statement	**C**	
Final Pay Request	**C**	`
File Notice of Completion	**O**	

END OF SECTION 017700

SECTION 017800 - WARRANTIES AND BONDS

01/22/24

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division 0 & 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section specifies general administrative and procedural requirements for warranties and bonds required by the Contract Documents, including manufacturer's standard warranties on products and special warranties.

1. Refer to the General Conditions for terms of the Contractor's special warranty of workmanship and materials.
2. General closeout requirements are included in Section "Project Closeout."
3. Specific requirements for warranties for the Work and products and installations that are specified to be warranted, are included in the individual Sections of Divisions 2 through 33.
4. Certifications and other commitments and agreements for continuing services to Owner are specified elsewhere in the Contract Documents.
5. Items that are omitted and/or different than specified/indicated herein and on Construction Documents and items not indicated as a change on Submittals, shall be warrantied as required in Sections 006002 and 013300.

B. Disclaimers and Limitations: Manufacturer's disclaimers and limitations on product warranties do not relieve the Contractor of the warranty on the Work that incorporates the products, nor does it relieve suppliers, manufacturers, and subcontractors required to countersign special warranties with the Contractor.

C. Notwithstanding any tests, approvals, certificates, commissioning, inspection or otherwise by the Owner, Architect or any other consultant employed by or on behalf of the employer, the Contractor shall be and remain fully and exclusively responsible and liable for ensuring that his works, and all goods and materials therein are in every respect and detail in accordance with the Contract Documents, and no such tests, approval certificates, commissioning, inspection or otherwise shall in any way diminish or negate the Contractor's responsibility or liability as foresaid.

1.3 WARRANTY REQUIREMENTS

A. Related Damages and Losses: When correcting warranted Work that has failed, remove and replace other Work that has been damaged as a result of such failure or that must be removed and replaced to provide access for correction of warranted Work.

B. Reinstatement of Warranty: When Work covered by a warranty has failed and been corrected by replacement or rebuilding, reinstate the warranty by written endorsement. The reinstated warranty shall be equal to the original warranty with an equitable adjustment for depreciation.

C. Replacement Cost: Upon determination that Work covered by a warranty has failed, replace or rebuild the Work to an acceptable condition complying with requirements of Contract Documents. The Contractor is responsible for the cost of replacing or rebuilding defective Work regardless of whether the Owner has benefited from use of the Work through a portion of its anticipated useful service life.

D. Owner's Recourse: Written warranties made to the Owner are in addition to implied warranties, and shall

not limit the duties, obligations, rights and remedies otherwise available under the law, nor shall warranty periods be interpreted as limitations on time in which the Owner can enforce such other duties, obligations, rights, or remedies.

1. Rejection of Warranties: The Owner reserves the right to reject warranties and to limit selections to products with warranties not in conflict with requirements of the Contract Documents.

E. The Owner reserves the right to refuse to accept Work for the Project where a special warranty, certification, or similar commitment is required on such Work or part of the Work, until evidence is presented that entities required to countersign such commitments are willing to do so.

1.4 SUBMITTALS

A. Submit written warranties to the Architect prior to the date certified for Notice of Completion. If the Architect's Certificate of Notice of Completion designates a commencement date for warranties other than the date of Notice of Completion for the Work, or a designated portion of the Work, submit written warranties upon request of the Architect.

1. When a designated portion of the Work is completed and occupied or used by the Owner, by separate agreement with the Contractor during the construction period, submit properly executed warranties to the Architect within fifteen days of completion of that designated portion of the Work.

B. When a special warranty is required to be executed by the Contractor, or the Contractor and a subcontractor, supplier or manufacturer, prepare a written document that contains appropriate terms and identification, ready for execution by the required parties. Submit a draft to the Owner through the Architect for approval prior to final execution.

1. Refer to individual Sections of Divisions 2 through 33 for specific content requirements, and particular requirements for submittal of special warranties.

C. Bind warranties and bonds in heavy-duty, commercial quality, durable 3-ring vinyl covered loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2" by 11" paper.

1. Provide heavy paper dividers with celluloid covered tabs for each separate warranty. Mark the tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product, and the name, address and telephone number of the installer.
2. Identify each binder on the front and the spine with the typed or printed title "WARRANTIES AND BONDS, the Project title or name, and the name of the Contractor.
3. When operating and maintenance manuals are required for warranted construction, provide additional copies of each required warranty, as necessary, for inclusion in each required manual.

PART 2 - PRODUCTS (Not Applicable).

PART 3 – EXECUTION

3.1 FORMS

A. Project Warranty Form, See attached.

B. Subcontractor Warranty Form, See attached.

END OF SECTION 017800

PROJECT WARRANTY

Project:	Dorm Plumbing Replacement Coalinga College	Date:	
Owner:	West Hills Community College District		
Architect:	AP Architects	File No:	
Contractor:		Project No:	391-0144
Inspector:		DSA Appl No:	

_____(Contractor) hereby warrants to the Owner that materials and equipment furnished under the Contract in the _____ (Name of Project) are of good quality and new unless otherwise required or permitted by the Contract Documents, that the Work is free from defects not inherent in the quality required or permitted, and that the Work conforms with the requirements of the Contract Documents. Work not conforming to these requirements, including substitution not properly approved and authorized, may be considered defective. This warranty excludes remedy for damage or defect caused by abuse, modifications not executed by the Contractor, improper or insufficient maintenance, improper operation, or normal wear and tear under normal usage.

If, within ___ year(s) after the date of Notice of Completion of the Work or designated portion thereof, or by terms of an applicable special warranty required by the Contract Documents extending this time period, and of the Work is found to be not in accordance with the requirements of the Contract Documents or proves to be defective in materials or workmanship, the Contractor expressly agrees to correct it, without expense to the Owner, promptly after receipt of written notice from the Owner or his agent to do so unless the Owner has previously given the Contractor written acceptance of the condition. This period of ____ year(s) shall be extended with respect to portions of the Work first performed after Notice of Completion by the period of time between Notice of Completion and the actual performance of Work. This obligation of the Contractor to correct the Work shall survive acceptance of the Work under the Contract and termination of the Contract. The Owner shall give such notice promptly after discovery of the condition.

Nothing contained in this warranty shall be construed to establish a period of limitation with respect to other obligations which the Contractor might have under the Contract Documents. Establishment of the time period of ___ year(s), or special extended time periods required by the Contract Documents, for correction of the Work as described above relates only to the specific obligation of the Contractor to correct the work, and has no relationship to the time within which the obligation to comply with the Contract Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Contractor's liability with respect to the Contractor's obligations other than specifically to correct the Work.

In the event of the Contractor's failure to comply with the conditions of this warranty within 5 days after being notified in writing by the Owner or his agent, the Contractor hereby authorizes the Owner to proceed to have said defects repaired and made good at the Contractor's expense and the Contractor will honor and pay the costs and charges therefore upon demand.

The term "Work" means the construction and services required by the Contract Documents and includes all other labor, materials, equipment and services provided by the Contractor to fulfill the Contractor's obligations. The Work may constitute the whole or part of the total construction performed under the Contract Documents.

Date _____

_____
Contractor

_____
Address

_____

_____
Telephone

_____
Signature of Contractor

_____
Title

SUBCONTRACTOR WARRANTY

Project: Dorm Plumbing Replacement
Coalinga College
Owner: West Hills Community College District
Architect: AP Architects
Contractor:
Inspector:

Date:
File No:
Project No: 391-0144
DSA Appl No:

_____ (Subcontractor) hereby warrants to _____ (General Contractor) that materials and equipment furnished under the Contract, pursuant to Specifications Section(s) _____ in the _____ (Name of Project) are of good quality and new unless otherwise required or permitted by the Contract Documents, that the Work is free from defects not inherent in the quality required or permitted, and that the Work conforms with the requirements of the Contract Documents. Work not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective. This warranty excludes remedy or damage or defect caused by abuse, modifications not executed by the Subcontractor, improper or insufficient maintenance, improper operation, or normal wear and tear under normal usage.

If, within __ year(s) after the date of Notice of Completion of the Work or designated portion thereof, or by terms of an applicable special warranty required by the Contract Documents extending this time period, and of the Work is found to be not in accordance with the requirements of the Contract Documents or proves to be defective in materials or workmanship, the Subcontractor expressly agrees to correct it, without expense to the Owner, promptly after receipt of written notice from the Contractor to do so unless the Owner has previously given the Contractor written acceptance of the condition. This period of __ year (s) shall be extended with respect to portions of the Work first performed after Notice of Completion by the period of time between Notice of Completion and the actual performance of Work. This obligation of the Subcontractor to correct the Work shall survive acceptance of the Work under the Contract and termination of the Contract. The Contractor shall give such notice promptly after discovery of the condition.

Nothing contained in this warranty shall be construed to establish a period of limitation with respect to other obligations which the Subcontractor might have under the Contract Documents. Establishment of the time period of __ year(s), or special extended time periods required by the Contract Documents, for correction of the Work as described above relates only to the specific obligation of the Subcontractor to correct the work, and has no relationship to the time within which the obligation to comply with the Contract Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Subcontractor's liability with respect to the Subcontractor's obligations other than specifically to correct the Work.

In the event of the Subcontractor's failure to comply with the conditions of this warranty within 5 days after being notified in writing by the Contractor, the Subcontractor, hereby authorizes the Contractor to proceed to have said defects repaired and made good at the Subcontractor's expense and the Subcontractor will honor and pay the costs and charges therefore upon demand.

The term "Work" means the construction and services required by the Contract Documents and includes all other labor, materials, equipment and services provided by the Subcontractor to fulfill the Subcontractor's obligations. The Work may constitute the whole or part of the total construction performed under the Contract Documents.

Date _____

_____
Contractor

_____
Address

_____

_____
Telephone

_____
Signature of Contractor

_____
Title

SECTION 018000 – CONSTRUCTION WASTE REDUCTION, DISPOSAL AND RECYCLING 09/30/22

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 0 &1 Specification Sections, apply to this Section.

1. Standard details and requirements per jurisdiction requirements, not limited to herein.

1.2 SUMMARY

A. This Section includes, but not limited to, construction waste diversion and related items.

1. Establish a Construction Waste Management (CWM) plan for the diverted materials, or meet local construction and demolition waste management ordinance, whichever is more stringent.
2. Construction Waste Management (CWM) worksheet(s).
3. Construction Waste Management (CWM) acknowledgement.
4. Miscellaneous and related forms as required by local jurisdiction and Owner.

B. Related Sections: The following Sections contain requirements that relate to this Section:

1. Division 1 Section “Project Closeout” for required closeout documents.
2. Division 2 Section “Building Demolition” for related items.
3. Division 2 Section “Selective Demolition” for related items.

1.3 SUBMITTAL

A. General: Submit for approval prior to initial pay application submission the following in accordance with Conditions of Contract and Division 1 Specification Sections.

1. Construction Waste Management Plan.
2. Construction Waste Management Worksheet(s).
3. Construction Waste Management Acknowledgement.
4. Copies of all applications, permits and related requirements, not limited to, herein and local jurisdiction requirements.
5. Project Closeout Requirements:

a. Copies of all completed forms required herein
b. Compilation of Construction Waste Management (CWM) worksheet(s).
c. Receipts to document diversion.

1.4 QUALITY ASSURANCE

A. Codes and Standards: Comply with provisions of following codes, specifications, and standards, except where more stringent requirements are shown or specified:

1. Title 24, Part 1 CCR 2022, Chapter 5 (California Green Building Standard Code)

B. Refer to Division 2 Section "Selective Demolition", for additional requirements.

B. Refer to Division 2 Section “Building Demolition” for additional requirements.

PART 2 – PRODUCTS (NOT APPLICABLE)

PART 3 – EXECUTION

3.1 CONSTRUCTION WASTE REDUCTION, DISPOSAL AND RECYCLING

A. Construction waste diversion. Establish a construction waste management plan for the diverted materials, or meet local construction and demolition waste management ordinance, whichever is more stringent.

B. Construction waste management plan (CWMP). Where a local jurisdiction does not have a construction and demolition waste management ordinance, submit a construction waste management plan for approval by the District that:

1. Identifies the materials to be diverted from disposal by efficient usage, recycling, reuse on the project or salvage for future use or sale.
2. Determine if materials will be sorted on-site or mixed.
3. Identifies diversion facilities where materials collected will be taken.
4. Specifies that the amount of materials diverted shall be calculated by weight or by volume, but not both.
5. See sample forms at end of section.

C. Documentation. Documentation shall be provided to the enforcing agency which demonstrates compliance with herein. The waste management plan shall be updated as necessary and shall be accessible during construction for examination by the District and Architect.

D. Construction waste reduction of at least 65 percent. Recycle and/ or salvage for reuse a minimum of 65 percent of the non- hazardous construction and demolition debris, or meet a local construction and demolition waste management ordinance, whichever is more stringent. Calculate the amount of materials diverted by weight or volume, but not both.

Exceptions:

1. Excavated soil and land-clearing debris.

E. Excavated soil and land clearing debris. 100 percent of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing shall be reused or recycled. For a phased project, such material may be stockpiled on site until the storage site is developed, if approved by the District and Architect within 30 days of Notice to Proceed.

3.2 DISPOSAL OF WASTE/ DEMOLISHED MATERIALS

A. Remove from building site debris, rubbish, and other materials resulting from demolition operations. Transport and legally disposed off site per Construction Waste Management Plan.

1. If hazardous materials are encountered during demolition operations, comply with applicable regulations, laws, and ordinances concerning removal, handling, and protection against exposure or environmental pollution.
2. Burning of removed materials is not permitted on project site.

B. Demolition Permits and Disposal Requirements (Sample forms at end section):

1. The District requires diversion of 65% of discarded materials from landfills, reusing for compliance with AB 939 goals. Contractor shall secure a demolition permit with local jurisdiction as prescribed in Section 002113 “Instructions to Bidders”. The following requirements are:

a. Prepare Construction Waste Management Plan.
b. Provide for all Contractor, subcontractor, vendor, workers a Construction Waste Management Acknowledgement. Keep files at project site. Provide copies for Project Closeout.
c. Complete Construction and Demolition Recycling Program Application as required by local jurisdiction. Verify requirements prior to bidding.
d. Inform all sub-contractors, vendors and employees about the recycling requirements, as Contractor will be held responsible for any materials they take away from the job site. Document acknowledgement with Construction Waste Management Acknowledgement Report. In order for Contractor to comply with recycling requirements, vendors, employees and subcontractors must take materials to an approved disposal/ recycling site and keep copies of disposal tickets for diversion rate.

    1. Track waste by weight or volume, but not both.

e. Compliance: District will not accept project until it is determined that the Construction and Demolition waste/disposal has fully complied with the diversion requirements and recycling guidelines.
f. Non-Compliance: If the Contractor fails to adhere to the Construction and Demolition Recycling Plan, the applicant will not receive project acceptance.
g. Contractor shall complete a Construction Waste Management Worksheet for documenting compliance with the Waste Management Plan after completion of project, as a precedent to project acceptance.

B. Demolition Permits and Disposal Requirements:

1. The local jurisdiction requires diversion of 65% of discarded materials from landfills, reusing for compliance with AB 939 goals. Contractor shall secure a demolition permit as prescribed in Section 002113 “Instructions to Bidders”. The following requirements are:

    a. Complete Construction and Demolition Recycling Program Application.
    b. The franchise hauler Mid Valley Disposal shall be the exclusive service provider for roll-off service and shall transport the Construction and Demolition material to their transfer station located at 15300W. Jensen Avenue, Kerman, California, for all projects that require a permit to build or deconstruct to spate material and divert a minimum of sixty-five percent (65%) of Construction and Demolition material form projects. Inform all sub-contractors, vendors and employees about the recycling requirements, as Contractor will be held responsible for any materials they take away from the job site. In order for Contractor to comply with recycling requirements, vendors, employees and subcontractors must take materials to Mid Valley Disposal and keep copies of weight tickets for diversion rate.
    c. Compliance: If the local entity determines that the Construction and Demolition has fully complied with the diversion requirements and recycling guidelines, the local entity will provide final inspection and/or certificate of occupancy.
    d. Non-Compliance: If the Contractor fails to adhere to the Construction and Demolition Recycling Plan, the applicant will not receive final inspection and/or certificate of occupancy.
    e. Contractor shall complete a Waste Reduction and Recycling Report (WRRR) after completion of project, as a precedent to final inspection and/or issuance of any certificate of occupancy is approved by local entity.

END OF SECTION 018000

CONSTRUCTION WASTE MANAGEMENT (CWM) PLAN

Note: This sample form may be used to assist in documenting compliance with the waste management plan.

Project Name: _____
Job #: _____
Project Manager: _____
Waste Hauling Company: _____
Contact Name: _____

All Subcontractors shall comply with the project's Construction Waste Management Plan.
All Subcontractor foremen shall sign the CWM Plan Acknowledgement Sheet.

Subcontractors who fail to comply with the Waste Management Plan will be subject to backcharges or withholding of payment, as deemed appropriate. For instance, Subcontractors who contaminate debris boxes that have been designed for a single material type will be subject to backcharge or withheld payment, as deemed appropriate.

1. The project's overall rate of waste diversion will be _____ %.
2. This project shall generate the least amount of waste possible by planning and ordering carefully, following all proper storage and handling procedure to reduce broken and damaged material and reusing materials whenever possible. The majority of the waste that is generated on this jobsite will be diverted from the landfill and recycled for other use.
3. Spreadsheet 1, enclosed, identifies the waste materials that will be generated on this project, the diversion strategy for each waste type and the anticipated diversion rate.
4. Waste prevention and recycling activities will be discussed at the beginning of weekly subcontractor meetings. As each new subcontractor comes on-site, the WMP Coordinator will present him/her with a copy of the CWM Plan and provide a tour of the jobsite to identify materials to be salvaged and the procedure for handling jobsite debris. All Subcontractor foremen will acknowledge in writing that they have read and will abide by the CWM Plan. Subcontractor Acknowledgement Sheet enclosed. The CWM Plan will be posted at the jobsite trailer.
5. Salvage: Excess materials that cannot be used in the project, nor returned to the vendor, will be offered to site workers, the owner, or donated to charity if feasible.
6. _____ [HAULING COMPANY] will provide a commingled drop box at the jobsite for most of the construction waste. These commingled drop boxes will be taken to [Sorting Facility Name and Location]. The average diversion for commingled waste will be _____%. As site conditions permit, additional drop boxes will be used for particular phases of construction (e.g. concrete and wood waste) tp ensure the highest waste diversion rate possible.
7. In the event that the waste diversion rate achievable via the strategy described in (6) above, is projected to be lower than what is required, then a strategy of source-separated waste diversion and/or waste stream reduction will be implemented. Source separated waste refers to jobsite waste that is not commingled but is instead allocated to a debris box designated for a single material type, such as clean wood or metal.
   Notes:
   a. Waste stream reduction refers to efforts taken by the builder to reduce the amount of waste generated by the project to below four (4) pounds per square foot of building area.
   b. When using waste stream reduction measures, the gross weight of the product is subtracted from the base weight of four (4) pounds per square foot of building area. This reduction is considered additional diversion and can be used in the waste reduction percentage calculations.
8. _____[HAULING COMPANY] will track and calculate the quantity (in tons) of all waste leaving the project and calculate the waste diversion rate for the project. [HAULING COMPANY] will provide Project Manager with an updated monthly report on gross weight hauled and the waste diversion rate being achieved on the project. [HAULING COMPANY's] monthly report will track separately the gross weights and diversion rates for commingled debris and for each source –separated waste stream leaving the project. In the event the [HAULING COMPANY] does not service any or all of the debris boxes on the project, the [HAULING COMPANY] will work with the responsible parties to track the material type and weight (in tons) in such debris boxes in order to determine waste diversion rates for these materials.
9. In the event that the Subcontractors furnish their own debris boxes as part of their scope of work, such Subcontractors shall not be excluded from complying with the CWM Plan and will provide [HAULING COMPANY] weight and waste diversion data for their debris boxes.
10. In the event that site use constraints (such as limited space) restrict the number of debris boxes that can be used for collection of designed waste the project Superintendent will, as deemed appropriate, allocate specific areas onsite where individual material types are to be consolidated. These collection points are not to be contaminated with non-designated waste types.
11. Debris from jobsite office and meeting rooms will be collected by [DISPOSAL SERVICE COMPANY]. [DISPOSAL SERVICE COMPANY] will, at a minimum recycle office paper, plastic, metal and cardboard.

CONSTRUCTION WASTE MANAGEMENT (CWM) WORKSHEET

Note: This sample form may be used to assist in documenting compliance with the waste management plan.

Project Name: _____

Job Name: _____

Project Manager: _____

Waste Hauling Company: _____

Construction Waste Management (CWM) Plan

WASTE MATERIAL TYPE	DIVERSION METHOD		PROJECTED DIVERSION RATE
	COMMINGLED AND SORTED OFF SITE	SOURCE SEPARATED ON SITE	
Asphalt			
Concrete			
Shotcrete			
Metals			
Wood			
Rigid Insulation			
Fiberglass Insulation			
Acoustic ceiling tile			
Gypsum drywall			
Carpet/ carpet pad			
Plastic pipe			
Plastic buckets			
Plastic			
Hardiplank siding and boards			
Glass			
Cardboard			
Pallets			
Job office trash, paper, glass & plastic bottles, cans, plastic			
Alkaline and rechargeable batteries, toner cartridges and electronic devices			
Others:			
Others:			
Others:			
Others:			
Others:			

CONSTRUCTION WASTE MANAGEMENT (CWM) ACKNOWLEDGE

Note: This sample form may be used to assist in documenting compliance with the waste management plan.

Project Name: _____

Job Name: _____

Project Manager: _____

Waste Hauling Company: _____

CWM Plan Acknowledgement

The Foreman for each new Subcontractor that comes on site is to receive a copy of the Construction Waste Management Plan and complete this Acknowledgement Form.

I have read the Waste Management Plan for the project; I understand the goals of this plan and agree to the follow the procedures described in this plan.

DATE	SUBCONTRACTOR COMPANY NAME	FOREMAN NAME	SIGNATURE

SECTION 024119 - SELECTIVE DEMOLITION

09/30/22

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 0 & 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section requires the selective removal and subsequent offsite disposal, unless noted otherwise, but not limited to, the following:
   1. Demolition and removal of selected portions of building or structure.

B. Hazardous materials: Hazardous materials are present in buildings and structures to be selectively demolished. A report on the presence materials is on file for review and use. Examine report to become aware of locations where hazardous materials are present. Contractor shall abate and remove hazardous materials per these requirements and technical specifications prepared Leon Environmental Services dated March 30, 2026.

C. Related Sections: The following Sections contain requirements that relate to this Section:

   1. Division 1 Section “Construction Waste Reduction, Disposal and Recycling” for waste and disposal requirements.

1.3 DEFINITIONS

A. Remove: Detach items from existing construction and legally dispose of them off-site unless indicated to be removed and salvaged or removed and reinstalled.

B. Remove and Salvage: Carefully detach from existing construction, in a manner to prevent damage, and deliver to Owner ready for reuse.

C. Remove and Reinstall: Detach items from existing construction, prepare for reuse, and reinstall where indicated.

D. Existing to Remain: Existing items of construction that are not to be permanently removed and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.

1.4 MATERIALS OWNERSHIP

A. Unless otherwise indicated, demolition waste becomes property of Contractor.

B. Historic items, relics, antiques, and similar objects including, but not limited to, cornerstones and their contents, commemorative plaques and tablets, and other items of interest or value to Owner that may be uncovered during demolition remain the property of Owner.

1. Carefully salvage in a manner to prevent damage and promptly return to Owner.

1.5 SUBMITTALS

A. General: Submit the following in accordance with Conditions of Contract and Division 1 Specification Sections.

B. Schedule indicating proposed sequence of operations for selective demolition work to Architect for review prior to start of work with starting and ending dates for each activity. Include coordination dates for shutoff, capping, and continuation of utility services as required for review and approval by Architect and Owner.

1. Provide detailed sequence of demolition and removal work to ensure uninterrupted progress of Owner's on-site operations.
2. Coordinate with Owner's continuing occupation of portions of existing facilities and with Owner's partial occupancy of completed work. Provide dates of partial occupancy availability of portions of work for owner's use.
3. Proposed Protection Measures: Submit report, including drawings, that indicates the measures proposed for protecting individuals and property , for environmental protection , for dust control and, for noise control. Indicate proposed locations and construction of barriers.
4. Note and secure prior approval by Owner and Architect in writing of any items that will impact the Owner's continuing operations and note dates of impact. If no impacts provide statement in submittal to that owner's continuing operations will not be impacted by project activities.
5. Use of elevator and stairs.
6. Statement of Refrigerant Recovery: Signed by refrigerant recovery technician responsible for recovering refrigerant, stating that all refrigerant that was present was recovered and that recovery was performed according to EPA regulations. Include name and address of technician and date refrigerant was recovered.

C. Digital photographs of existing conditions of structure surfaces, equipment, and adjacent improvements that might be misconstrued as damage related to removal operations. Provide copies in submittal; provide on digital storage device or provide download link prior to start of work.

1.6 CLOSEOUT SUBMITTALS

A. Inventory: Submit a list of items that have been removed and salvaged.

B. Landfill Records: Indicate receipt and acceptance of hazardous wastes by a landfill facility licensed to accept hazardous wastes

1.7 QUALITY ASSURANCE

A. Codes and Standards: Comply with provisions of following codes, specifications, and standards, except where more stringent requirements are shown or specified:

1. Title 24, Part 1 CCR 2019, Chapter 5 (California Green Building Standard Code)

B. Refrigerant Recovery Technician Qualifications: Certified by an EPA-approved certification

program.

1.8 JOB CONDITIONS

A. Occupancy: Owner will occupy portions of the building immediately adjacent to areas of selective demolition. Conduct selective demolition work in manner that will minimize need for disruption of Owner's normal operations. Provide minimum of 72 hours advance notice to Owner of demolition activities that will affect Owner's normal operations.

1. Refer to Section “Summary of Work” for limitations on noise generations, access and other restrictions.

B. Condition of Facilities: Owner assumes no responsibility for actual condition of items or facilities to be demolished.

1. Conditions existing at time of inspection for bidding purposes will be maintained by Owner insofar as practicable. However, minor variations may occur by Owner's removal and salvage operations prior to start of selective demolition work.
2. Owner has first right of refusal of salvaged items. Contractor shall dispose of all items Owner does not want. Owner will walk through project prior to start of demolition and mark items for salvage. Contractor to schedule walk within 7 days written advance notification of architect, owner, subcontractors and consulting engineers.

C. Partial Demolition and Removal: Items indicated to be removed but of salvageable value to Contractor may be removed as work progresses. Transport salvaged items from site as they are removed. Document all items on Construction Waste Management Plan and reports.

1. Storage or sale of removed items on site will not be permitted.

D. Protections: Provide temporary barricades and other forms of protection to protect Owner's personnel and general public from injury due to selective demolition work.

1. Provide protective measures as required to provide free and safe passage of Owner's personnel and general public to occupied portions of building.
2. Erect temporary covered passageways as required by authorities having jurisdiction.
3. Provide interior and exterior shoring, bracing, or support to prevent movement, settlement, or collapse of structure or element to be demolished and adjacent facilities or work to remain.
4. Protect from damage existing finish work that is to remain in place and becomes exposed during demolition operations.
5. Protect floors with suitable coverings when necessary.
6. Construct temporary insulated dustproof partitions where required to separate areas where noisy or extensive dirt or dust operations are performed. Equip partitions with dustproof doors and security locks.
7. Provide temporary weather protection during interval between demolition and removal of existing construction on exterior surfaces and installation of new construction to ensure that no water leakage or damage occurs to structure or interior areas of existing building.
8. Close off supply and return air registers in construction area prior to starting any work. Maintain fresh air to construction area via fans and other means.
9. Remove protections at completion of work.
10. Equipment, materials and supplies temporarily removed for protection shall be replaced in original locations. Any materials damaged shall be replaced with new materials of life kind and quality.
11. Protect wall, trim, floors, equipment, utility lines and materials. When working on finished surfaces limit damage to the smaller area if possible and restore to the pre-construction

condition all surfaces which are damaged because of the installation of this work.

E. Damages: Promptly repair damages caused to adjacent facilities by demolition work.

F. Traffic: Conduct selective demolition operations and debris removal to ensure minimum interference with roads, streets, walks, and other adjacent occupied or used facilities.

1. Do not close, block, or otherwise obstruct streets, walks, or other occupied or used facilities without written permission from authorities having jurisdiction. Provide alternate routes around closed or obstructed traffic ways if required by governing regulations.

G. Flame Cutting: Do not use cutting torches for removal until work area is cleared of flammable materials. At concealed spaces, such as interior of ducts and pipe spaces, verify condition of hidden space before starting flame-cutting operations. Maintain portable fire suppression devices during flame-cutting operations.

H. Utility Services: Maintain existing utilities indicated to remain in service and protect them against damage during demolition operations.

1. Do not interrupt utilities serving occupied or used facilities, except when authorized in writing by authorities having jurisdiction. Provide temporary services during interruptions to existing utilities, as acceptable to governing authorities.
2. Maintain fire protection services during selective demolition operations.

I. Environmental Controls: Use water sprinkling, temporary enclosures, and other methods to limit dust and dirt migration. Comply with governing regulations pertaining to environmental protection.

1. Do not use water when it may create hazardous or objectionable conditions such as ice, flooding, and pollution.

J. Fire safety during demolition.

1. Combustible Debris: Combustible debris shall not be accumulated within buildings and site. Combustible debris, rubbish and waste material shall be removed from buildings as often as practical. Combustible debris, waste material and trash shall not be burned on site.
2. Motor Equipment: Internal-combustion-powered construction equipment shall be used in accordance with the following:

   a. Equipment shall be located so that exhausts do not discharge against combustible material.
   b. When possible, exhausts shall be piped to the outside of the building.
   c. Equipment shall not be refueled while in operation.
   d. Fuel for equipment shall be stored in an approved area outside of the building and provided for containment for any spills of containers over 5 gallons.

3. Cutting and Welding: Cutting and welding operations shall be in accordance with Chapter 26 - California Fire Code.
4. Flame-producing Equipment: The use of torches or flame-producing devices for the sweating of pipe joints shall be in accordance with Chapter 14 and Chapter 26 - California Fire Code.
5. Flammable Liquids: The storage, use and handling of flammable liquids shall be in accordance with Chapter 34 - California Fire Code. Ventilation shall be provided for operations utilizing the application of materials containing flammable solvents.
6. Open-flame Devices: Open-flame devices and other sources of ignition shall not be

located in areas where flammable materials are being used.

7. Building Access: Access to buildings for the purpose of fire fighting shall be provided per CFC 501.4 and 1412.1 and CBC 3311.4. Construction material shall not block access to buildings, hydrants or fire appliances; maintain areas around device clear at all times.
8. General: Demolition of buildings shall be in accordance with Chapter 14 - California Fire Code.
9. General: Construction of building shall be in accordance with Chapter 14 and Chapter 26 – California Fire Code.

PART 2 - PRODUCTS (Not Applicable)

2.1 PEFORMANCE REQUIREMENTS

A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.

B. Standards: Comply with ANSI/ASSE A10.6 and NFPA 241.

PART 3 - EXECUTION

3.1 EXAMINATION

C. Verify that utilities have been disconnected and capped before starting selective demolition operations.

D. Review record documents of existing construction provided by Owner. Owner does not guarantee that existing conditions are same as those indicated in record documents.

E. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.

F. When unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate and measure the nature and extent of conflict. Promptly submit a written report to Architect.

3.2 PREPARATION

A. General: Provide interior and exterior shoring, bracing, or support to prevent movement, settlement, or collapse of areas to be demolished and adjacent facilities to remain.

1. Cease operations and notify Owner's Representative immediately if safety of structure appears to be endangered. Take precautions to support structure until determination is made for continuing operations.
2. Cover and protect furniture, equipment, and fixtures from soilage or damage when demolition work is performed in areas where such items have not been removed.
3. Erect and maintain dust-proof partitions and closures as required to prevent spread of dust or fumes to occupy and non-construction portions of the building.

a. Where selective demolition occurs immediately adjacent to occupied portions of the building, construct dust-proof partitions of minimum 4-inch studs, 5/8-inch drywall (joints taped) on occupied side, 1/2-inch plywood on demolition side. Fill partition cavity with 4" sound-deadening insulation.
b. Provide weatherproof closures for exterior openings resulting from demolition work.

4. Locate, identify, cap off, and disconnect utility services that are not indicated to remain.

   a. Provide bypass connections as necessary to maintain continuity of service to occupied areas of building. Provide minimum of 72 hours advance notice to Owner if shutdown of service is necessary during changeover. Schedule change over during building/site non-occupied times, and after hours.

5. Close off HVAC registers in demolition area to prevent migration of dust and etc. from entering mechanical systems.
6. Selective demolition contractor to coordinate with flooring contractor prior to demolition/removal of all items at existing concrete slab as required to receive new floor finishes prior to starting work.

3.3 DEMOLITION

A. General: Perform selective demolition work in a systematic manner. Use such methods as required to complete work indicated on Drawings in accordance with demolition schedule and governing regulations.

1. Demolish concrete and masonry in small sections. Cut concrete and masonry at junctures with construction to remain using power-driven masonry saw or hand tools; do not use power-driven impact tools.
2. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping, to minimize disturbance of adjacent surfaces. Temporarily cover openings to remain.
3. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
4. Remove decayed, vermin-infested, or otherwise dangerous or unsuitable materials and promptly dispose of off-site.
5. Locate demolition equipment throughout structure and promptly remove debris to avoid imposing excessive loads on supporting walls, floors, or framing.
6. Provide services for effective air and water pollution controls as required by local authorities having jurisdiction.
7. Demolish foundation walls to a depth of not less than 12 inches below existing ground surface, unless noted otherwise. Demolish and remove below-grade wood or metal construction. Break up below-grade concrete slabs. (See plans for more restrictive requirements.)
8. For interior slabs on grade, use removal methods that will not crack or structurally disturb adjacent slabs or partitions. Use power saw where possible.
9. Completely fill below-grade areas and voids resulting from demolition work. Provide fill consisting of approved earth, gravel, or sand, free of trash and debris, no stones over 1 inch in diameter, roots, or other organic matter.

B. If unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate and measure both nature and extent of the conflict. Submit report to Owner's Representative in written, accurate detail. Pending receipt of directive from Owner's Representative, rearrange selective demolition schedule as necessary to continue

overall job progress without undue delay.

C. Demolition work that generates noise shall be scheduled around schedule of occupied rooms within 125 feet of work to be done. This work may have to be done during after hours, evenings and weekends, depending on occupancy schedules. Verify with Director of Facilities prior to scheduling any noise-generating demolition. See Section 011000 for additional requirements. Obtain approvals in writing from Director of Facilities for any work during occupied hours within 125 feet of occupied spaces

3.4 SALVAGED MATERIALS

A. Salvaged Items: Where indicated on Drawings as "Salvage - Deliver to Owner," carefully remove indicated items, clean, store, and turn over to Owner and obtain receipt.

1. Owner shall remove all items prior to start of demolition of each area of building that they want to salvage. Owner shall have first right of salvage. All items left after Owner has completed salvage shall become property of Contractor.

B. Where noted herein, Contractor shall remove, package and deliver salvage items to Owner.

1. Clean salvaged items.
2. Pack or crate items after cleaning. Identify contents of containers.
3. Store items in a secure area until delivery to Owner.
4. Transport items to Owner's storage area designated by Owner.
5. Protect items from damage during transport and storage.

3.5 DISPOSAL OF WASTE/ DEMOLISHED MATERIALS

A. Remove from building site debris, rubbish, and other materials resulting from demolition operations. Transport and legally disposed off site per Construction Waste Management Plan.

1. If hazardous materials are encountered during demolition operations, comply with applicable regulations, laws, and ordinances concerning removal, handling, and protection against exposure or environmental pollution.
2. Burning of removed materials is not permitted on project site.

3.6 CLEANUP AND REPAIR

A. General: Upon completion of demolition work, remove tools, equipment, and demolished materials from site. Remove protections and leave interior areas soft broom clean.

1. Repair demolition performed in excess of that required. Return elements of construction and surfaces to remain to condition existing prior to start operations. Repair adjacent construction or surfaces soiled or damaged by selective demolition work.
2. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

END OF SECTION 024119

SECTION 033005 - CAST-IN-PLACE CONCRETE

03/23/22

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 0 & 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This section includes, but is not limited to, the following:

1. Slabs-on-grade.

1.3 SUBMITTALS

A. General: Submit the following in accordance with Conditions of Contract and Division 1 Specification Sections.

B. Concrete mix design from an approved laboratory signed by a Civil or Structural Engineer licensed in the State of California. Mix designs shall indicate compliance with applicable sections of Chapter 19A of the 2022 CBC.

C. The cost of testing all materials, including aggregate grading in conjunction with mix designs shall be paid by the Owner. The Contractor shall cooperate in furnishing test materials so that tests may be completed prior to their installation.

1.4 QUALITY ASSURANCE

A. Codes and Standards: Comply with provisions of following codes, specifications, and standards, except where more stringent requirements are shown or specified:

1. ACI 318, "Building Code Requirements for Reinforced Concrete."
2. Concrete Reinforcing Steel Institute (CRSI), "Manual of Standard Practice."

3. Title 24, Part 2 CCR 2022, Chapter 19A.

B. Refer to Division 1 Section "Quality Control Service", Section 014000 for quality control requirements.

PART 2 - PRODUCTS

2.1 FORM MATERIALS

A. Forms for Exposed Finish Concrete: Plywood, metal, metal-framed plywood faced, or other acceptable panel-type materials, to provide continuous, straight, smooth, exposed surfaces. Furnish in largest practicable sizes to minimize number of joints and to conform to joint system shown on drawings.

B. Forms for Unexposed Finish Concrete: Plywood, lumber, metal, or other acceptable material. Provide lumber dressed on at least 2 edges and one side for tight fit.

C. Form Coatings: Provide commercial formulation form-coating compounds with a maximum VOC of 350 mg/l that will not bond with, stain, or adversely affect concrete surfaces and will not impair subsequent treatments of concrete surfaces.

2.2 REINFORCING MATERIALS

A. Reinforcing Bars: Shall be deformed bars conforming to ASTM A615, Grade 60 unless noted otherwise; #4 and smaller bars may be grade 40. Reinforcing bars intended for welding shall conform to ASTM A706 (Grade 60). Reinforcing steel that is required to be re-bent shall be ASTM A615, Grade 40.

B. Smooth dowels shall be ASTM A 36, steel.

C. Steel Wire: ASTM A 82, plain, cold-drawn steel.

D. Supports for Reinforcement: Bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcing bars and welded wire fabric in place. Use wire-bar-type supports complying with CRSI specifications in above grade applications.

1. For slabs-on-grade, use supports with sand plates or horizontal runners where base material will not support chair legs.
2. For concrete cast against earth, reinforcing steel shall be supported by appropriately sized precast concrete blocks with integral wire ties.

2.3 CONCRETE MATERIALS

A. Portland Cement: Type V or Type II/V, ASTM C 150, and CBC Sec. 1903A.1.
1. The cement shall not contain more than 0.60% total alkali when calculated as Sodium Oxide.
2. Cement shall be stored in such a manner as to protect it from inclusion of foreign material and damage by moisture. Only one (1) brand of cement shall be used for this work.

B. Fly Ash: Shall conform to ASTM C618, Type “F” and CBC 1903A.4 except that loss on ignition shall not exceed 4%.

C. Normal Weight Aggregates: Aggregate shall conform to ASTM C33, CBC Sec. 1903A.1, Table I below and following. Provide non-reactive aggregate from a single source for all concrete used in this project. Reactivity testing of aggregate (coarse and/or fine) will be required if, in the opinion of the Structural Engineer and/or DSA, the source is questionable. The basis for acceptance of aggregate shall be that all samples of fine and coarse aggregate shall be determined “innocuous” by testing in accordance with ASTM C289.

1. Do not use fine or coarse aggregates containing spalling-causing deleterious substances. Aggregate that is known or determined to be reactive in the presence of cement alkalies shall not be incorporated in the work.
2. Fine aggregate shall consist of a washed natural sand of hard, strong and durable particle and which does not contain more than two percent (2%) by weight of deleterious substances such as clay lumps, shale, schist, alkali, mica, coated grains, or soft and flaky particles. Fine aggregate shall be graded uniformly from fine to coarse and when combined with coarse aggregate shall meet the requirements of Table 1 below.
3. Coarse aggregate shall consist of a clean, hard, fine grained, sound crushed rock, or

washed gravel. It shall contain not more than five percent (5%) by weight of flat, thin, elongated, or laminated material nor more than two percent (2%) by weight shale or charty material. Coarse aggregate shall be graded uniformly from one fourth inch (1/4") in size to maximum size and when combined with fine aggregate shall meet the requirements of Table 1 below.

TABLE I
GRADING OF COMBINED AGGREGATES

Sieve Woven Wire Cloth	Percent by Wt. 1-1/2" Max	Percent by Wt. 1" Maximum	Percent by Wt. 3/4" Maximum
Passing a 1-1/2"	95-100		
Passing a 1"	70-90	90-100	
Passing a 3/4"	50-80	70-95	90-100
Passing a 3/8"	40-60	45-70	55-75
Passing a #4	35-55	35-55	40-60
Passing a #8	25-40	27-45	30-46
Passing a #16	16-34	20-38	23-40
Passing a #30	12-25	12-27	13-28
Passing a #50	2-12	5-15	5-15
Passing a #100	0-3	0-5	0-5

D. Aggregate Size:

Type of Work — Max. Aggregate Size
Floor slabs on grade….....…….....1"
All other concrete…….…….....1"

E. Water: Shall be clean and free from deleterious acids, alkali, oil and organic matter and shall be potable.

F. Water-Reducing Admixture: ASTM C 494, Type A. Admixtures, other than those pre-approved (below) shall be the types with prior DSA approval.

1. Available Products: Subject to compliance with requirements, products that may be incorporated in the Work include but are not limited to the follow:

   a. Grace WRDA-64.
   b. Pozzolith 322-N

2.4 RELATED MATERIALS

A. Sand Cushion: Clean, manufactured or natural sand, conforming to the requirements for “fine aggregate”.

B. Vapor Retarder: Provide vapor retarder cover over prepared subbase where indicated below slabs on grade. Vapor retarder must have all of the following qualities:

1. Permeance: As tested before and after mandatory conditioning per ASTM E 1745 Section 7.1; less than 0.01 Perm (grains/ grains/($ft^2 \cdot hr \cdot inHg$)].[3]
2. Strength: ASTM E 1745 Class A[4]
3. Acceptable Products:

   a. Stego Wrap 15mil Vapor Barrier by Stego Industries, LLC

b. EcoShield E-15 by Epro Services, Inc.
c. VaporGuard by Reef Industries, Inc.

. 4. Accessories:

a. Seam tape: Stego tape by Stego Industries LLC, or equal.
b. Vapor-proofing mastic: Stego Mastic by Stego Industries LLC or equal.

C. Absorptive Cover: Burlap cloth made from jute or kenaf, weighing approximately 9 oz. per sq. yd., complying with AASHTO M 182, Class 2.

D. Moisture-Retaining Cover: One of the following, complying with ASTM C 171.

1. Waterproof paper.
2. Polyethylene film.
3. Polyethylene-coated burlap.

E. Water-Based Acrylic Membrane Curing Compound: Complying with ACI 308and ASTM C1315, Type 1 , Class A for exposed concrete floor , Class B for non-exposed concrete floor . The compound, when applied at the rate recommended by the manufacturer, shall restrict the loss of water to not more than 0.40 kg/m². The compound shall not reduce the bonding effectiveness of adhesives of commonly used or specified herein to adhere flooring materials to the concrete.

1. Available Products: Subject to compliance with requirements, products that may be incorporated in the work include, but are not limited to, the following:
a. "Dress & Seal #18WB," L&M Construction Chemicals, Inc.
b. "Kure 1315" Sonneborn/ De Gussa.
c. "Vo Comp 25", W.R. Meadows, Inc.

F. Exposed Concrete Sealer: Water based acrylic concrete sealer, no VOC's composed of methyl metacrylate copolymer resins and aromatic resins.

	Properties
Color	Water clear
Solids	25-27% by weight
Flash point	0
Viscosity	22 Sec
Dry Time	Normal Traffic 4-8 hours
	Max hardness 7 days
Coverage	200sf/gallon

1. Available Products: Subject to compliance with requirements, products that may be incorporated in the work include, but are not limited to, the following:

a. Exposite "WB", Lambert Corporation 1-800-432-4746.

G. Evaporation Control: Monomolecular film-forming compound applied to exposed concrete slab surfaces for temporary protection from rapid moisture loss.

1. Available Products: Subject to compliance with requirements, products that may be incorporated in the work include, but are not limited to, the following:

a. "Aquafilm," Conspec Marketing and Mfg. Co.
b. "Eucobar," Euclid Chemical Co.

c. "E-Con," L&M Construction Chemicals, Inc.
d. "Confilm," Master Builders, Inc.

H. Underlayment Compound: Free-flowing, self-leveling, pumpable, cement-based compound for applications from one inch thick to feathered edges.

1. Available Products: Subject to compliance with requirements, products that may be incorporated in the work include, but are not limited to, the following:

a. "K-15," Ardex, Inc.
b. "Conflow," Conspec Marketing and Mfg. Co.
c. "LevelLayer II," Dayton Superior Corp.
d. "Flo-Top," Euclid Chemical Co.
e. "Levelex," L&M Construction Chemicals, Inc.
f. "Pourcrete," Master Builders, Inc.
g. "Stoncrete UL1," Stonhard, Inc.
h. "Thoro Underlayment Self-Leveling," Thoro System Products.

I. Bonding Compound: Polyvinyl acetate or acrylic base.

1. Available Products: Subject to compliance with requirements, products that may be incorporated in the work include, but are not limited to, the following:

a. Polyvinyl Acetate (Interior Only):

1) "Superior Concrete Bonder," Dayton Superior Corp.
2) "Euco Weld," Euclid Chemical Co.
3) "Weld-Crete," Larsen Products Corp.
4) "Everweld," L&M Construction Chemicals, Inc.
5) "Intra-Lok," W. R. Meadows, Inc.

b. Acrylic or Styrene Butadiene:

1) "Acrylic Bondcrete," The Burke Co.
2) "Strongbond," Conspec Marketing and Mfg. Co.
3) "Day-Chem Ad Bond," Dayton Superior Corp.
4) "SBR Latex," Euclid Chemical Co.
5) "Daraweld C," W.R. Grace & Co.
6) "Hornweld," A.C. Horn, Inc.
7) "Everbond," L & M Construction Chemicals, Inc.
8) "Acryl-Set," Master Builders Inc.
9) "Sonocrete," Sonneborn-Rexnord.
10) "Stonlock LB2," Stonhard, Inc.

J. Epoxy Adhesive: ASTM C 881, two-component material suitable for use on dry or damp surfaces. Provide material "Type," "Grade," and "Class" to suit project requirements.

1. Available Products: Subject to compliance with requirements, products that may be incorporated in the work include, but are not limited to, the following:

a. "Burke Epoxy M.V.," The Burke Co.
b. "Spec-Bond 100," Conspec Marketing and Mfg. Co.
c. "Euco Epoxy System #452 or #620," Euclid Chemical Co.
d. "Epoxtite Binder 2390," A.C. Horn, Inc.
e. "Epabond," L&M Construction Chemicals, Inc.
f. "Concresive 1001," Master Builders, Inc.

g. "Sikadur 32 Hi-Mod," Sika Corp.
h. "Rezi-Weld 1000," or "Gel Paste," W. R. Meadows, Inc.

2.5 PROPORTIONING AND DESIGN OF MIXES

A. Prepare design mixes for each type and strength of concrete by either laboratory trial batch or field experience methods as specified in ACI 301 and CBC 1905A.2. If trial batch method used, use an independent testing facility acceptable to the Architect for preparing and reporting proposed mix designs. The testing facility shall not be the same as used for field quality control testing.

1. Concrete design mix(es) shall be prepared, signed and stamped by an independent California registered civil engineer.
2. Mix design shall indicate compliance with applicable section of CBC 2022 Chapter 19A.

B. Submit written reports to Architect of each proposed mix for each class of concrete at least 15 days prior to start of work. Do not begin concrete production until proposed mix designs have been reviewed by the Architect and approved by lab of record.

C. Design mixes to provide normal weight concrete with the following properties, as indicated on drawings and schedules:

1. 4000-psi, 28-day compressive strength; water/cement ratio, 0.42 maximum (non-air-entrained), shall be at least 2400-psi at 7-day. Minimum cement content 6.2 sacks per cubic yard.

D. Proportions: The Contractor shall propose to the Architect Laboratory Designed Mixes based on the following limitations: The mix design shall be approved prior to use. The relative amounts of cement, fine and coarse aggregate and mixing water shall be determined by a testing laboratory in accordance with CBC 1905A.3 or 1905A.4. The concrete ready-mix supplier shall pay the costs of concrete mix designs, excluding the cost of aggregate gradation analysis where required.

E. Adjustment to Concrete Mixes: Mix design adjustments may be requested by Contractor when characteristics of materials, job conditions, weather, test results, or other circumstances warrant, as accepted by Architect. Laboratory test data for revised mix design and strength results must be submitted to and accepted by the Architect, and Laboratory before using in work.

F. Slump Limits: Proportion and design mixes to result in concrete slump at point of placement as follows:

1. The amount of mixing water used (including free moisture carried by the aggregate) shall not exceed the maximum allowed by the approved mix design. The addition, the amount used shall be the minimum necessary to produce the following maximum allowable slumps:

Slabs.....4"
Other.....4"

The slump test shall conform to ASTM C-143.

2.6 CONCRETE MIXING

A. Ready-Mix Concrete: Comply with requirements of ASTM C 94, and as specified. Use a single source for all concrete incorporated in the project.

1. Transit Mixed Concrete shall be mixed and delivered in accordance with the requirements of ASTM C-94 and CBC 1905A. Transit mixed concrete shall not be delivered to the work with the total specified amount of water incorporated therein. Two and one-half (2-1/2) gallons of water per cubic yard shall be withheld but may be incorporated in the mix under the supervision of the representative of the Architect. Transit mixed concrete shall be mixed for a period of not less than ten (10) minutes at a peripheral drum speed of approximately two hundred (200) feet per minute and mixing shall be continued until discharge is complete. Concrete will be rejected if not discharged within one and one-half (1-1/2) hours during normal weather or forty-five (45) minutes during hot weather after the addition of cement to the aggregates. The manufacturer of the transit mixed concrete shall furnish with each mixer truck a certificate stating the quantity of cement, water, fine aggregate, coarse aggregate and admixture (if used) in each batch delivered to the job.

PART 3 - EXECUTION

3.1 GENERAL

A. Coordinate the installation of joint materials and vapor retarders with placement of forms and reinforcing steel.

3.2 FORMS

A. General: Design, erect, support, brace, and maintain formwork to support vertical and lateral, static and dynamic loads that might be applied until concrete structure can support such loads. Construct formwork so concrete members and structures are of correct size, shape, alignment, elevation, and position. Maintain formwork construction tolerances complying with ACI 347.

B. Construct forms to sizes, shapes, lines, and dimensions shown and to obtain accurate alignment, location, grades, level, and plumb work in finished structures. Provide for openings, offsets, sinkages, keyways, recesses, moldings, rustications, reglets, chamfers, blocking, screeds, bulkheads, anchorages and inserts, and other features required in work. Use selected materials to obtain required finishes. Solidly butt joints and provide backup at joints to prevent leakage of cement paste. The arrangement and construction shall be subject to the approval of the Engineer, but responsibility for adequacy of the forms shall rest with the Contractor..

C. Provide temporary openings where interior area of formwork is inaccessible for cleanout, for inspection before concrete placement, and for placement of concrete. Securely brace temporary openings and set tightly to forms to prevent loss of concrete mortar. Locate temporary openings in forms at inconspicuous locations.

D. Chamfer exposed corners and edges as indicated, using wood, metal, PVC, or rubber chamfer strips fabricated to produce uniform smooth lines and tight edge joints.

E. Provisions for Other Trades: Provide openings in concrete formwork to accommodate work of other trades. Determine size and location of openings, recesses, and chases from trades providing such items. Accurately place and securely support items built into forms.

F. Cleaning and Tightening: Thoroughly clean forms and adjacent surfaces to receive concrete. Remove chips, wood, sawdust, dirt, or other debris just before concrete is placed. Retighten forms and bracing before concrete placement as required to prevent mortar leaks and maintain proper alignment.

3.3 VAPOR RETARDER/BARRIER INSTALLATION

A. General: Following leveling and tamping of base for slabs on grade, place vapor retarder/barrier sheeting with longest dimension parallel with direction of pour. At perimeters, membrane shall be turned up against walls and cemented with adhesive. Penetrations through membrane required by piping, conduit, drains, reinforcing and anchors shall be formed by cutting slits in membrane material and then sealing membrane surface and sealing against the riser.

B. Lap joints 6 inches and seal vapor barrier joints with manufacturers' recommended mastic and pressure-sensitive tape or glue.

C. Fill Under Interior Floor Slabs: Place vapor barrier over compacted earth subgrade. Apply two inches (2") of sand fill over the completed membrane, moisten, grade smooth and level and roll to smooth, even surface. Moisten sand prior to placement but do not allow to become saturated.

3.4 PLACING REINFORCEMENT

A. General: Comply with Concrete Reinforcing Steel Institute's recommended practice for "Placing Reinforcing Bars," for details and methods of reinforcement placement and supports and as herein specified.

1. Avoiding cutting or puncturing vapor retarder during reinforcement placement and concreting operations.

B. Clean reinforcement of loose rust and mill scale, earth, ice, and other materials that reduce or destroy bond with concrete.

C. Accurately position, support, and secure reinforcement against displacement. Locate and support reinforcing by metal chairs, runners, bolsters, spacers, and hangers, as approved by Architect.

D. Place reinforcement:

1. Reinforcing shall be accurately placed in accordance with the drawings and meeting CRSI and shall be securely tied in position with at least No. 16 gage annealed wire at all bar intersections except that in floor slabs on grade bars shall be tied at alternate intersections. Metal chairs and bolsters shall be used to hold all steel above the form bottoms at the proper distance. Metal spacers shall be used to secure the proper spacing of the steel. Precast concrete blocks shall be used to support reinforcing steel off the ground in footings and slabs at 36" o.c. max. The clear distance between parallel bars shall not be less than 1-1/2 times the bar diameter, but in no case less than 1-1/2" nor less than 1-1/3 times the maximum size of coarse aggregate.
2. Splices shall be made with a lap of at least Class "B" unless noted otherwise. Do not locate splices at control joints. The bars shall be placed in contact and wired together in such a manner as to maintain a clearance of not less than the minimum clear distance to the other bars and to the surface of the concrete. In general, stagger splices at least 4'-0". Vertical reinforcing steel shall be spliced only where specifically detailed. Splice wire mesh with a lap of at least the dimension of one mesh +2". Welded splices shall be in accordance with CBC 1908A.1.6.
3. The bending and placing of all reinforcement shall conform to the "Manual of Standard Practice" of the American Concrete Institute and CRSI. Bends shall be made as indicated on the drawings. Bars shall be bent cold.

E. No unprotected aluminum embedments.1. Coat all aluminum embedments with bituminous coating or approved equal.

3.5 JOINTS

A. Construction Joints: Shall be cleaned and roughened per CBC 1906A.4. Locate and install construction joints (expansion joints) as indicated or, if not indicated, locate so as not to impair strength and appearance of the structure, as acceptable to Architect.

1. The location of construction joints shall be as shown on the plan or as approved by the Architect. Vertical construction joints shall be keyed.
2. Maximum spacing shall be 20 feet on center for curbs and gutters, 10 feet on center for mow strips, and exterior slabs on grade (see below, also) 20 feet on center for retaining walls. Refer to drawings for more restrictive requirements.

B. Provide keyways at least 1-1/2 inches deep in construction joints in walls and slabs and between walls and footings. Accepted bulkheads designed for this purpose may be used for slabs.

C. Use bonding agent on existing concrete surfaces that will be joined with fresh concrete.

D. Control (Contraction) Joints in Slabs-on-Grade: Construct control joints in slabs-on-grade to form panels of patterns as shown.

1. Form slab control joints by inserting premolded plastic, by deep tooling, by “Soff-Cutting” or by other specifically detailed methods. In slab that will remain exposed, tool joints and slab edges round. After concrete has cured, remove inserts and clean groove of loose debris.
2. Joints in concrete slabs on grade shall be spaced a maximum of 12'-0" o.c. (or less where shown on the plans).
1. Joint sealant material is specified in Division 7 Sections of these specifications.

3.6 INSTALLATION OF EMBEDDED ITEMS

A. General: Set and build into work anchorage devices and other embedded items required for other work that is attached to or supported by cast-in-place concrete. Use setting drawings, diagrams, instructions, and directions provided by suppliers of items to be attached thereto.

B. General: Comply with ACI 304, "Recommended Practice for Measuring, Mixing, Transporting, and Placing Concrete," and as herein specified.

3.7 PREPARATION OF FORM SURFACES

A. General: Coat contact surfaces of forms with an approved, nonresidual, low-VOC, form-coating compound before reinforcement is placed.

3.8 CONCRETE PLACEMENT

A. Inspection: Before placing concrete, inspect and complete formwork installation, reinforcing steel, and items to be embedded or cast in. Notify other crafts to permit installation of their work; cooperate with other trades in setting such work. Concrete shall not be placed until forms and rebar have been inspected by the Project Inspector. Project Inspector will confirm moisture content level of base material prior to placement of concrete, see requirement herein.

B. General: Comply with ACI 304, "Recommended Practice for Measuring, Mixing, Transporting, and Placing Concrete," and as herein specified.

C. Deposit concrete continuously or in layers of such thickness that no concrete will be placed on concrete that has hardened sufficiently to cause the formation of seams or planes of weakness. If a section cannot be placed continuously, provide construction joints as herein specified. Deposit concrete to avoid segregation at its final location.

D. Concrete shall be used while fresh and before it has taken an initial set. Retempering partially hardened concrete with additional water will not be permitted. Concrete shall be placed in horizontal layers of such thickness that can be satisfactorily consolidated with vibrators. The concrete shall be placed as nearly as possible in its final position and the use of vibrators for extensive shifting of fresh concrete shall not be permitted. Fresh concrete shall not be permitted to fall more than six feet (6'-0") without the use of adjustable length pipes or "elephant trunks". The use of chutes in conveying concrete will not be permitted except with the Architect's approval and only if segregation does not occur and concrete of proper consistency flows freely. Once concreting is started, it shall be carried on as a continuous operation at such a rate that the concreting surface is at all times plastic and flows readily until the section is completed between pre-determined construction joints.

E. Placing Concrete in Forms: Deposit concrete in forms in horizontal layers not deeper than 24 inches and in a manner to avoid inclined construction joints. Where placement consists of several layers, place each layer while preceding layer is still plastic to avoid cold joints.

F. Placing Concrete Slabs: Deposit and consolidate concrete slabs in a continuous operation, within limits of construction joints, until the placing of a panel or section is completed.

G. Cold-Weather Placing: Comply with provisions of ACI 306, CBC 1905.12 and as follows. Protect concrete work from physical damage or reduced strength that could be caused by frost, freezing actions, or low temperatures.

H. When air temperature has fallen to or is expected to fall below 40 deg F (4 deg C), uniformly heat water and aggregates before mixing to obtain a concrete mixture temperature of not less than 50 deg F (10 deg C) and not more than 80 deg F (27 deg C) at point of placement.

I. Hot-Weather Placing: When hot weather conditions exist that would seriously impair quality and strength of concrete, place concrete in compliance with ACI 305, CBC 1905.13 and as herein specified.

J. Moisture content of base material under concrete shall be as prescribed herein and confirmed by project inspector immediately prior to casting concrete. Base material shall be removed and replaced with dampened sand meeting this limitation if the upper limit is exceeded prior to casting.

3.9 FINISH OF FORMED SURFACES

A. Rough Form Finish: For formed concrete surfaces not exposed to view in the finish work or concealed by other construction. This is the concrete surface having texture imparted by form-facing material used, with tie holes and defective areas repaired and patched and fins and other projections exceeding 1/4 inch in height rubbed down or chipped off.

B. Smooth Form Finish: For formed concrete surfaces exposed to view or to be covered with a coating material applied directly to concrete, or a covering material applied directly to concrete, such as waterproofing, dampproofing, veneer plaster, painting, or other similar system. This is an as-cast concrete surface obtained with selected form-facing material, arranged in an orderly and symmetrical manner with a minimum of seams. Repair and patch defective areas with fins and

other projections completely removed and smoothed..

3.10 MONOLITHIC SLAB FINISHES

A. Scratch Finish: Apply scratch finish to monolithic slab surfaces to receive mortar setting beds for tile, and other bonded applied cementitious finish flooring material, and as otherwise indicated.

B. Float Finish: Apply float finish to monolithic slab surfaces to receive trowel finish and other finishes as hereinafter specified; slab surfaces to be covered with membrane or elastic waterproofing, membrane or elastic roofing, or sand-bed terrazzo; and as otherwise indicated.

1. After screeding, consolidating, and leveling concrete slabs, do not work surface until ready for floating. Begin floating, using float blades or float shoes only, when surface water has disappeared, when concrete has stiffened sufficiently to permit operation of power-driven floats, or both. Consolidate surface with power-driven floats or by hand-floating if area is small or inaccessible to power units. Uniformly slope surfaces to drains. Grind smooth surface defects that would telegraph through applied floor covering system.

C. Trowel Finish: Apply trowel finish to monolithic slab surfaces to be exposed to view and slab surfaces to be covered with resilient flooring, carpet, ceramic or quarry tile, paint, or other thin film finish coating system.

D. Trowel and Fine Broom Finish: Where ceramic or quarry tile is to be installed with thin-set mortar, apply trowel finish as specified, then immediately follow with slightly scarifying surface by fine brooming, verify with tile manufacturer.

E. Nonslip Broom Finish: Apply nonslip medium broom finish to exterior concrete platforms, steps, ramps, walks, interior exposed slabs, and elsewhere as indicated without floor covering.

1. Immediately after float finishing, slightly roughen concrete surface by brooming with fiber-bristle broom perpendicular to main traffic route. Coordinate required final finish with Architect before application.
2. Medium broom finish on all surface less than 6% and heavy broom finish on all surfaces greater than or equal to 6%.

F. Nonslip Aggregate Finish: Apply nonslip aggregate finish to exterior concrete, platforms, stops, ramps, walks, and elsewhere as indicated, without floor covering.

1. After completion of float finishing and before starting trowel finish, uniformly spread 35 lbs. of dampened nonslip aggregate per 100 sq. ft. of surface. Tamp aggregate flush with surface using a steel trowel. After broadcasting and tamping, apply trowel finishing as herein specified.

3.11 CONCRETE CURING AND PROTECTION

A. General: Concrete shall be maintained above 50ºF and in a moist condition for at least the first seven (7) days after placement in accordance with CBC Sec. 1905.12 and ACI 308. During hot weather, proper attention shall be given to ingredients, production methods, handling, placing, protection and curing to prevent excessive concrete temperatures or water evaporation that may impair required strength or serviceability. Provide curing methods that will eliminate alternate cycles of wetting and drying.

1. Formed Surfaces: Formed concrete surfaces, including underside of beams, supported slabs, and other similar surfaces shall be moist cured, as described below, for the full

curing period. If forms are removed prior to the conclusion of the curing period, moist curing of the surfaces shall be continued until the end of the prescribed curing period.

2. Construction Joints: Construction joints shall be prepared as herein specified and receive moist curing, as described below, for the curing period. Liquid membrane forming compound shall not be used for the curing of construction joints.
3. Unformed Surfaces: Slabs, floor toppings and other unformed surfaces shall be cured by the application of liquid membrane forming compound unless otherwise indicated below.

    a. Moist curing shall be used in areas to receive toppings, ceramic tile, terrazzo, surfaces to receive liquid floor hardener or other materials that are incomparable with liquid membrane forming compound.
    b. Slab surfaces to remain exposed shall be cured using water-based acrylic membrane forming curing compound.
    c. Slab surfaces to receive resilient flooring such as sheet vinyl composition tile, rubber, wood flooring, carpet, epoxy coating and overlay shall be cured using concrete sealer/hardener/curing compound.

B. Initial curing, such as fog spraying in accordance with ACI 308.1, may be employed; other initial curing methods shall be approved by the Architect prior to the commencement of the work. Start final curing as soon as free water has disappeared from concrete surface after placing and finishing.

C. Final curing methods:

1. Moisture curing by one or more of the following methods:

    a. Ponding: Maintain a minimum of 1 inch of water over the entire area.
    b. Spray: Maintain a wet surface over the entire area by fog spraying or by sprinkling, using caution to avoid erosion of the surface.
    c. Absorptive cover: Cover surface with absorptive mats covering the entire surface and edges (with a 4 inch lap with adjacent mats); thoroughly saturate mats with water and keep continuously wet.
    d. Forms shall be covered and kept continuously moist during the full curing period.

2. Moisture-cover curing by covering the pre-wetted concrete surfaces with moisture-retaining cover for curing concrete, placed in widest practicable width with sides and ends lapped at least 3 inches and sealed by waterproof tape or adhesive. Immediately repair any holes or tears during curing period using cover material and waterproof tape. The cover shall be in contact with the concrete surface at all times during the curing period.

3. Membrane-forming curing (or curing/sealing) compound:

    a. Apply curing compound to concrete surfaces as soon as final finishing pass is completed and within 1 hour after surface water sheen has disappeared. Apply uniformly in a continuous operation by power spray or roller in accordance with the manufacturer's published directions and at the rate of application recommended by the manufacturer (for curing) and conforming to ASTM C1315.
    b. Recoat areas subjected to rainfall, again within 2 hours after surface water sheen has disappeared. Maintain continuity of coating and repair damage during the curing period.

2. Concrete sealer/curing compound:

    a. Apply concrete sealer/curing compound on the day of the concrete pour prior to any other chemical treatments for concrete slabs either on grade, below grade or above grade receiving resilient flooring such as sheet vinyl, vinyl composition tile, rubber,

wood flooring, carpet, epoxy coatings and overlays.

b. Manufacturer's technician shall be on site the day of the concrete pour to install or train in application document and shall return on every application thereafter to verify that proper procedures are followed in accordance with the manufacturer's published direction and at the rate recommended by the manufacturer and conforming to ASTM C1315.

c. Moisture content of base material under concrete shall be between 5% and 7% immediately prior to casting concrete. Base material shall be removed and replaced with dampened sand meeting this limitation if the upper limit is exceeded prior to casting. Project Inspector shall confirm this requirement is met prior to allowing concrete to be placed.

3.12 SHORES AND SUPPORTS

A. General: Comply with ACI 347 for shoring and reshoring in multistory construction, and as herein specified.

3.13 REMOVAL OF FORMS

A. General: Formwork not supporting weight of concrete, such as sides of beams, walls, columns, and similar parts of the work, may be removed after cumulatively curing at not less than 50 deg F (10 deg C) for 24 hours after placing concrete, provided concrete is sufficiently hard to not be damaged by form-removal operations, and provided curing and protection operations are maintained.

3.14 REUSE OF FORMS

A. Clean and repair surfaces of forms to be reused in work. Split, frayed, delaminated, or otherwise damaged form-facing material will not be acceptable for exposed surfaces. Apply new form-coating compound as specified for new formwork.

B. When forms are extended for successive concrete placement, thoroughly clean surfaces, remove fins and laitance, and tighten forms to close joints. Align and secure joint to avoid offsets. Do not use "patched" forms for exposed concrete surfaces except as acceptable to Architect.

3.15 MISCELLANEOUS CONCRETE ITEMS

A. Filling In: Fill in holes and openings left in concrete structures for passage of work by other trades, unless otherwise shown or directed, after work of other trades is in place. Mix, place, and cure concrete as herein specified, to blend with in-place construction. Provide other miscellaneous concrete filling shown or required to complete work.

B. Equipment Bases and Foundations: Provide machine and equipment bases and foundations, as shown on drawings. Set anchor bolts for machines and equipment to template at correct elevations, complying with certified diagrams or templates of manufacturer furnishing machines and equipment.

3.16 GROUT AND DRYPACK (Other than non-shrink)

A. Grout shall be composed of one (1) volume of portland cement and three (3) volumes of fine aggregate and only enough water to make the mixture flow under its own weight.

B. Drypack shall be composed as for grout except that only enough water shall be added to set the mixture (no free water and no slump). Drypack will be tamped into place.

C. Do not use grout or drypack that has been mixed longer than thirty (30) minutes.

D. Grout and drypack shall be kept moist for a minimum of 7 days.

3.17 CONCRETE SURFACE REPAIRS

A. Patching Defective Areas: Repair and patch defective areas with cement mortar immediately after removal of forms, when acceptable to Architect.

1. Cut out honeycomb, rock pockets, voids over 1/4 inch in any dimension, and holes left by tie rods and bolts, down to solid concrete but in no case to a depth of less than 1 inch. Make edges of cuts perpendicular to the concrete surface. Thoroughly clean, dampen with water, and brush-coat the area to be patched with specified bonding agent. Place patching mortar before bonding compound has dried.
2. For exposed-to-view surfaces, blend white portland cement and standard portland cement so that, when dry, patching mortar will match color surrounding. Provide test areas at inconspicuous location to verify mixture and color match before proceeding with patching. Compact mortar in place and strike-off slightly higher than surrounding surface.

B. Repair of Formed Surfaces: Remove and replace concrete having defective surfaces if defects cannot be repaired to satisfaction of Architect. Surface defects, as such, include color and texture irregularities, cracks, spalls, air bubbles, honeycomb, rock pockets, fins and other projections on surface, and stains and other discolorations that cannot be removed by cleaning. Flush out form tie holes, fill with dry-pack mortar, or precast cement cone plugs secured in place with bonding agent.

1. Repair concealed formed surfaces, where possible, that contain defects that affect the durability of concrete. If defects cannot be repaired, remove and replace concrete.

C. Repair of Unformed Surfaces: Test unformed surfaces, such as monolithic slabs, for smoothness and verify surface plane to tolerances specified for each surface and finish. Correct low and high areas as herein specified. Test unformed surfaces sloped to drain for trueness of slope and smoothness by using a template having required slope.

1. Repair finished unformed surfaces that contain defects that affect durability of concrete. Surface defects, as such, include crazing and cracks in excess of 0.01 inch wide or that penetrate to reinforcement or completely through non-reinforced sections regardless of width, spalling, pop outs, honeycomb, rock pockets, and other objectionable conditions.
2. Correct high areas in unformed surfaces by grinding after concrete has cured at least 14 days.
3. Correct low areas in unformed surfaces during or immediately after completion of surface finishing operations by cutting out low areas and replacing with patching compound. Finish repaired areas to blend into adjacent concrete. Proprietary underlayment compounds may be used when acceptable to Architect.
4. Repair defective areas, except random cracks and single holes not exceeding 1 inch in diameter, by cutting out and replacing with fresh concrete. Remove defective areas to sound concrete with clean, square cuts and expose reinforcing steel with at least 3/4-inch clearance all around. Dampen concrete surfaces in contact with patching concrete and apply bonding compound. Mix patching concrete of same materials to provide concrete of same type or class as original concrete. Place, compact, and finish to blend with adjacent finished concrete. Cure in same manner as adjacent concrete.

D. Perform structural repairs with prior approval of Architect and Structural Engineer for method and procedure, using specified epoxy adhesive and mortar.

E. Repair methods not specified above may be used, subject to acceptance of the Architect.

END OF SECTION 033005

SECTION 092400 – LATH AND PLASTER

04/25/17

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 0 and 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes, but not limited to the following:

1. Patching interior Portland cement plasterwork on metal lath.
2. Mortar bed for tile.

B. Related Sections:

1. Division 9 Section “Tile” for ceramic tile.

1.3 SUBMITTALS

A. Product Data: For each type of product indicated.

B. Shop Drawings: Show locations and installation of control and expansion joints including plans, elevations, sections, details of components, and attachments to other work.

C. Samples for Initial Selection: For each type of factory-prepared finish coat indicated.

D. Samples for Verification: For each type of [factory-prepared] [colored] [textured] finish coat indicated; 12 by 12 inches (305 by 305 mm), and prepared on rigid backing.

E. Comply with 2013 CBC, Chapter 25A.

1.4 QUALITY ASSURANCE

A. Fire-Resistance Ratings: Where indicated, provide portland cement plaster assemblies identical to those of assemblies tested for fire resistance per ASTM E 119 by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.

1. Indicate design designations from UL's "Fire Resistance Directory" or from the listings of another qualified testing agency.

B. Sound-Transmission Characteristics: Where indicated, provide portland cement plaster assemblies identical to those of assemblies tested for STC ratings per ASTM E 90 and classified according to ASTM E 413 by a qualified testing agency.

C. Mockups: Before plastering, install mockups of at least 100 sq. ft. (9.3 sq. m) in surface area to demonstrate aesthetic effects and set quality standards for materials and execution.

1. Install mockups for each type of finish indicated.
2. For interior plasterwork, simulate finished lighting conditions for review of mockups.

3. Approved mockups may become part of the completed Work if undisturbed at time of date of Notice of Completion.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Store materials inside under cover and keep them dry and protected against damage from weather, direct sunlight, surface contamination, corrosion, construction traffic, and other causes.

1.6 PROJECT CONDITIONS

A. Comply with ASTM C 926 requirements.

B. Interior Plasterwork: Maintain room temperatures at greater than 40 deg F (4.4 deg C) for at least 48 hours before plaster application, and continuously during and after application.

1. Avoid conditions that result in plaster drying out during curing period. Distribute heat evenly; prevent concentrated or uneven heat on plaster.
2. Ventilate building spaces as required to remove water in excess of that required for hydrating plaster in a manner that prevents drafts of air from contacting surfaces during plaster application and until plaster is dry.

PART 2 - PRODUCTS

2.1 METAL LATH

A. Expanded-Metal Lath: ASTM C 847 with ASTM A 653/A 653M, G60 (Z180), hot-dip galvanized zinc coating.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

a. Alabama Metal Industries Corporation; a Gibraltar Industries Company.
b. CEMCO.
c. Clark Dietrich Building Products - a Worthington Industries Company
d. MarinoWARE.
e. Phillips Manufacturing Co.
f. Chicago Metallic Corporation
g. Gold Bond Building Products Div., National Gypsum Co.
h. United States Gypsum Co.

2. Recycled Content: Provide steel products with average recycled content such that postconsumer recycled content plus one-half of preconsumer recycled content is not less than 25 percent.

3. Diamond-Mesh Lath: 3.4 lb/sq. yd. (1.8 kg/sq. m).

4. Flat Rib Lath: Rib depth of not more than 1/8 inch (3.1 mm), 3.4 lb/sq. yd. (1.8 kg/sq. m).

B. Paper Backing: FS UU-B-790, Type I, Grade B, Style 1a vapor-retardant paper.

1. Provide paper-backed lath unless otherwise indicated.

2.2 ACCESSORIES

A. General: Comply with ASTM C 1063 and coordinate depth of trim and accessories with thicknesses and number of plaster coats required.

B. Metal Accessories:

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

   a. Alabama Metal Industries Corporation; a Gibraltar Industries company.
   b. CEMCO.
   c. Clark Western Building Systems.
   d. Dietrich Metal Framing; a Worthington Industries company.
   e. MarinoWARE.
   f. Phillips Manufacturing Co.
   g. Fry Reglet Corporation.

2. Cornerite: Fabricated from metal lath with ASTM A 653/A 653M, G60 (Z180), hot-dip galvanized zinc coating.

3. Cornerbeads: Fabricated from zinc-coated (galvanized) steel.

   a. Small nose cornerbead with expanded flanges; use unless otherwise indicated.
   b. Small nose cornerbead with perforated flanges; use on curved corners.
   c. Small nose cornerbead with expanded flanges reinforced by perforated stiffening rib; use on columns and for finishing masonry corners.

4. Casing Beads: Fabricated from zinc-coated (galvanized) steel] square-edged style; with expanded flanges.
5. Control Joints: Fabricated from zinc-coated (galvanized) steel; one-piece-type, folded pair of unperforated screeds in M-shaped configuration; with perforated flanges and removable protective tape on plaster face of control joint.
6. Expansion Joints: Fabricated from zinc-coated (galvanized) steel; folded pair of unperforated screeds in M-shaped configuration; with expanded flanges.
7. Two-Piece Expansion Joints: Fabricated from zinc-coated (galvanized) steel; formed to produce slip-joint and square-edged reveal that is adjustable from 1/4 to 5/8 inch (6.34 to 16 mm) wide; with perforated flanges.

2.3 MISCELLANEOUS MATERIALS

A. Water for Mixing: Potable and free of substances capable of affecting plaster set or of damaging plaster, lath, or accessories.

B. Fiber for Base Coat: Alkaline-resistant glass or polypropylene fibers, 1/2 inch (13 mm) long, free of contaminants, manufactured for use in Portland cement plaster.

C. Bonding Compound: ASTM C 932.

D. Steel Drill Screws: For metal-to-metal fastening, ASTM C 1002 or ASTM C 954, as required by thickness of metal being fastened; with pan head that is suitable for application; in lengths required to achieve penetration through joined materials of no fewer than three exposed threads.

E. Fasteners for Attaching Metal Lath to Substrates: Complying with ASTM C 1063.

F. Wire: ASTM A 641/A 641M, Class 1 zinc coating, soft temper, not less than 0.0475-inch (1.21-mm) diameter, unless otherwise indicated.

G. Acoustical Sealant: As specified in Division 7 Section "Joint Sealants".

1. Provide sealants that have a VOC content of 250g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).

2.4 PLASTER MATERIALS

A. Portland Cement: ASTM C 150, Type I or Type II.

1. Color for Finish Coats: White.

B. Masonry Cement: ASTM C 91, Type N.

1. Color for Finish Coats: White.

C. Colorants for Job-Mixed Finish Coats: Colorfast mineral pigments that produce finish plaster color to match Architect's sample.

D. Lime: ASTM C 206, Type S; or ASTM C 207, Type S.

E. Sand Aggregate: ASTM C 897.

1. Color for Job-Mixed Finish Coats: In color matching Architect's sample.

2.5 PLASTER MIXES

A. General: Comply with ASTM C 926 for applications indicated.

1. Fiber Content: Add fiber to base-coat mixes after ingredients have mixed at least two minutes. Comply with fiber manufacturer's written instructions for fiber quantities in mixes, but do not exceed 1 lb of fiber/cu. yd. (0.6 kg of fiber/cu. m) of cementitious materials.

B. Base-Coat Mixes for Use over Metal Lath: Scratch and brown coats for three-coat plasterwork as follows:

1. Portland Cement Mixes:

a. Scratch Coat: For cementitious material, mix 1 part portland cement and 3/4 to 1-1/2 parts lime. Use 2-1/2 to 4 parts aggregate per part of cementitious material.
b. Brown Coat: For cementitious material, mix 1 part portland cement and 3/4 to 1-1/2 parts lime. Use 3 to 5 parts aggregate per part of cementitious material, but not less than volume of aggregate used in scratch coat.

2. Masonry Cement Mixes:

   a. Scratch Coat: 1 part masonry cement and 2-1/2 to 4 parts aggregate.
   b. Brown Coat: 1 part masonry cement and 3 to 5 parts aggregate, but not less than volume of aggregate used in scratch coat.

3. Portland and Masonry Cement Mixes:

   a. Scratch Coat: For cementitious material, mix 1 part portland cement and 1 part masonry cement. Use 2-1/2 to 4 parts aggregate per part of cementitious material.
   b. Brown Coat: For cementitious material, mix 1 part portland cement and 1 part masonry cement. Use 3 to 5 parts aggregate per part of cementitious material, but not less than volume of aggregate used in scratch coat.

C. Job-Mixed Finish-Coat Mixes:

1. Portland Cement Mix: For cementitious materials, mix 1 part portland cement and 1-1/2 to 2 parts lime. Use 1-1/2 to 3 parts aggregate per part of cementitious material.
2. Masonry Cement Mix: 1 part masonry cement and 1-1/2 to 3 parts aggregate.

D. Factory-Prepared Finish-Coat Mixes: For ready-mixed finish-coat plasters] [acrylic-based finish coatings, comply with manufacturer's written instructions.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine areas and substrates, with Installer present, and including welded hollow-metal frames, cast-in anchors, and structural framing, for compliance with requirements and other conditions affecting performance of the Work.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Protect adjacent work from soiling, spattering, moisture deterioration, and other harmful effects caused by plastering.

B. Prepare solid substrates for plaster that are smooth or that do not have the suction capability required to bond with plaster according to ASTM C 926.

3.3 INSTALLATION, GENERAL

A. Fire-Resistance-Rated Assemblies: Install components according to requirements for design designations from listing organization and publication indicated on Drawings.

B. Sound Attenuation Blankets: Where required, install blankets before installing lath unless blankets are readily installed after lath has been installed on one side.

C. Acoustical Sealant: Where required, seal joints between edges of plasterwork and abutting construction with acoustical sealant.

D. Provide two (2) layers of Type I paper backing atr shear walls and wood framing with plywood.

3.4 INSTALLING METAL LATH

A. Expanded-Metal Lath: Install according to ASTM C 1063.

1. Partition Framing and Vertical Furring: Install flat rib lath.
2. Flat-Ceiling and Horizontal Framing: Install flat rib 3/8-inch (9.5-mm) rib lath.

3. Curved-Ceiling Framing: Install flat diamond-mesh lath.
4. On Solid Surfaces, Not Otherwise Furred: Install self-furring, diamond-mesh lath.
5. Self furring lath shall be installed per DSA IR 25-4.

3.5 INSTALLING ACCESSORIES

A. Install according to ASTM C 1063 and at locations indicated on Drawings.

B. Reinforcement for External Corners:

1. Install lath-type, external-corner reinforcement at exterior locations.

2. Install cornerbead at interior[and exterior] locations.

C. Control Joints: Install control joints at locations indicated on Drawings and required herein.

1. As required to delineate plasterwork into areas (panels) of the following maximum sizes:

   a. Vertical Surfaces: 144 sq. ft. (13.4 sq. m).
   b. Horizontal and other Nonvertical Surfaces: 100 sq. ft. (9.3 sq. m).

2. At distances between control joints of not greater than 18 feet (5.5 m) o.c.
3. As required to delineate plasterwork into areas (panels) with length-to-width ratios of not greater than 2-1/2:1.
4. Where control joints occur in surface of construction directly behind plaster.
5. Where plasterwork areas change dimensions, to delineate rectangular-shaped areas (panels) and to relieve the stress that occurs at the corner formed by the dimension change.

3.6 PLASTER APPLICATION

A. General: Comply with ASTM C 926.

1. Do not deviate more than plus or minus 1/4 inch in 10 feet (6.4 mm in 3 m) from a true plane in finished plaster surfaces, as measured by a 10-foot (3-m) straightedge placed on surface.
2. Finish plaster flush with metal frames and other built-in metal items or accessories that act as a plaster ground unless otherwise indicated. Where casing bead does not terminate plaster at metal frame, cut base coat free from metal frame before plaster sets and groove finish coat at junctures with metal.

B. Concealed Interior Plasterwork:

1. Where plaster application will be concealed behind built-in cabinets, similar furnishings, and equipment, apply finish coat.
2. Where plaster application will be concealed above suspended ceilings and in similar locations, finish coat may be omitted.

3. Where plaster application will be used as a base for adhesive application of tile and similar finishes, omit finish coat.

3.7 PLASTER REPAIRS

A. Repair or replace work to eliminate cracks, dents, blisters, buckles, crazing and check cracking, dry outs, efflorescence, sweat outs, and similar defects and where bond to substrate has failed.

3.8 PROTECTION

A. Remove temporary protection and enclosure of other work. Promptly remove plaster from door frames, windows, and other surfaces not indicated to be plastered. Repair floors, walls, and other surfaces stained, marred, or otherwise damaged during plastering.

END OF SECTION 092400

SECTION 092900 - GYPSUM BOARD ASSEMBLIES

09/30/22

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 0 & 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes, but not limited to, the following:

1. Gypsum board assemblies attached to steel framing.
2. Patching existing walls - match adjacent finish.

1.3 DEFINITIONS

A. Gypsum Board Terminology: Refer to ASTM C 11 for definitions of terms for gypsum board assemblies not defined in this Section or in other referenced standards.

1.4 SUBMITTALS

A. Product Data: For each type of product indicated.

B. Shop Drawings: Show locations, fabrication, and installation of control and expansion joints including plans, elevations, sections, details of components, and attachments to other units of Work.

C. Samples: For the following products:

1. Trim Accessories: Full-size sample in 12-inch- (300-mm-) long length for each trim accessory indicated.
2. Textured Finishes: For each textured finish indicated and on same backing indicated for Work.

1.5 QUALITY ASSURANCE

A. Fire-Test-Response Characteristics: For gypsum board assemblies with fire-resistance ratings, provide materials and construction identical to those tested in assembly indicated according to ASTM E 119 by an independent testing and inspecting agency acceptable to authorities having jurisdiction.

1. Fire-Resistance-Rated Assemblies: Indicated by design designations from GA-600, "Fire Resistance Design Manual."

B. Sound Transmission Characteristics: For gypsum board assemblies with STC ratings, provide materials and construction identical to those tested in assembly indicated according to ASTM E 90 and classified according to ASTM E 413 by a qualified independent testing agency.

1. STC-Rated Assemblies: Indicated by design designations from GA-600, "Fire Resistance Design Manual."

C. Gypsum Board Finish Mockups: Before finishing gypsum board assemblies, install mockups of at least 100 sq. ft. (9 sq. m) in surface area to demonstrate aesthetic effects and qualities of materials and execution.

1. Install mockups for the following applications:

a. Surfaces with texture finishes.
b. Surfaces indicated to receive nontextured paint finishes.
c. Surfaces indicated to receive textured paint finishes.

2. Simulate finished lighting conditions for review of mockups.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials in original packages, containers, or bundles bearing brand name and identification of manufacturer or supplier.

B. Store materials inside under cover and keep them dry and protected against damage from weather, direct sunlight, surface contamination, corrosion, construction traffic, and other causes. Stack gypsum panels flat to prevent sagging.

1.7 PROJECT CONDITIONS

A. Environmental Limitations: Comply with ASTM C 840 requirements or gypsum board manufacturer's written recommendations, whichever are more stringent.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

1. Steel Framing and Furring:

a. Clark Dietrich Building Systems.
b. Scafco Corporation.
c. Western Metal Lath & Steel Framing Systems.

2. Gypsum Board and Related Products:

a. American Gypsum Co.
b. Georgia Pacific Gypsum LLC.
c. National Gypsum Company.
d. United States Gypsum Co.

2.2 INTERIOR GYPSUM WALLBOARD

A. Panel Size: Provide in maximum lengths and widths available that will minimize joints in each area and correspond with support system indicated.

A. Glass-Mat Interior Gypsum Board: ASTM C 1658/C 1658M. With fiberglass mat laminated to both sides. Specifically designed for interior use.

1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but not limited t the following:

   a. Georgia-Pacific Gypsum LLC; DensArmour Plus®
   b. National Gypsum Company, eXP Extreme

2. Core: 5/8 inch (15.9 mm), Type X and 5/8 inch (15.9 mm),abuse resistant
3. Long Edge: Tapered.
4. Mold Resistance: ASTM D 3273, score of 10.

B. Gypsum Wallboard: ASTM C 1396/ C 1396 with moisture and mold resistant core and paper faces.

1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but not limited to the following:

   a. Georgia-Pacific Gypsum LLC
   b. National Gypsum Company

2. Core: 5/8 inch (15.9 mm), Type X
3. Long Edge: Tapered.
4. Mold Resistance: ASTM D 3273, score of 10.

C. Flexible Gypsum Wallboard: ASTM C 1396, manufactured to bend to fit tight radii and to be more flexible than standard regular-type panels of the same thickness.

1. Thickness: 1/4 inch (6.4 mm).
2. Long Edges: Tapered.
3. Location: As indicated. Apply in multiple layers at curved assemblies.

2.3 TILE BACKING PANELS

A. Panel Size: Provide in maximum lengths and widths available that will minimize joints in each area and correspond with support system indicated.

B. Glass-Mat, Water-Resistant Backing Board: ASTM C 1178/C 1178M.

1. Available Product: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to,

   a. "Dens-Shield Tile Backer" manufactured by G-P Gypsum Corp.
   b. eXP Tile backer, manufactured by National Gypsum Company
   c. “Glass-mat Tile Backer Board” Manufactured by USG Durock Brand.

2. Core: 5/8 inch (15.9 mm), Type X.

2.4 TRIM ACCESSORIES

A. Interior Trim: ASTM C 1047.

1. Material: Galvanized or aluminum-coated steel sheet, rolled zinc, plastic, or paper-faced galvanized steel sheet.

2. Shapes:

a. Cornerbead: Use at outside corners, unless otherwise indicated.
b. Bullnose Bead: Use where indicated.
c. LC-Bead (J-Bead): Use at exposed panel edges.
d. L-Bead: Use where indicated.
e. U-Bead: Use where indicated.
f. Expansion (Control) Joint: Use where indicated.
g. Curved-Edge Cornerbead: With notched or flexible flanges; use at curved openings.

2.5 JOINT TREATMENT MATERIALS

A. General: Comply with ASTM C 475.

B. Joint Tape:

1. Interior Gypsum Wallboard: Glassmat or Paper.
2. Exterior Gypsum Soffit Board: Glassmat.
3. Glass-Mat Gypsum Sheathing Board: 10-by-10 glass mesh.
4. Tile Backing Panels: As recommended by panel manufacturer.

C. Joint Compound for Interior Gypsum Wallboard: For each coat use formulation that is compatible with other compounds applied on previous or for successive coats.

1. Prefilling: At open joints, rounded or beveled panel edges, and damaged surface areas, use setting-type taping compound.
2. Embedding and First Coat: For embedding tape and first coat on joints, fasteners, and trim flanges, use.

a. Use setting-type compound for installing paper-faced metal trim accessories.

3. Fill Coat: For second coat, use setting-type, sandable topping compound.
4. Finish Coat: For third coat, use setting-type, sandable topping compound.
5. Skim Coat: For final coat of Level 5 finish, use setting-type, sandable topping compound.

2.6 ACOUSTICAL SEALANT (Indicated as ES7 on drawings)

A. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, the following:

1. Acoustical Sealant for Exposed and Concealed Joints:

a. Pecora Corp.; AC-20 FTR Acoustical and Insulation Sealant.
b. United States Gypsum Co.; SHEETROCK Acoustical Sealant.

2. Acoustical Sealant for Concealed Joints:

a. Ohio Sealants, Inc.; Pro-Series SC-170 Rubber Base Sound Sealant.
b. Pecora Corp.; BA-98.
c. Tremco, Inc.; Tremco Acoustical Sealant.

B. Acoustical Sealant for Exposed and Concealed Joints: Nonsag, paintable, nonstaining, latex sealant complying with ASTM C 834 that effectively reduces airborne sound transmission through perimeter joints and openings in building construction as demonstrated by testing representative assemblies according to ASTM E 90.

C. Acoustical Sealant for Concealed Joints: Nondrying, nonhardening, nonskinning, nonstaining, gunnable, synthetic-rubber sealant recommended for sealing interior concealed joints to reduce airborne sound transmission.

2.7 AUXILIARY MATERIALS

A. General: Provide auxiliary materials that comply with referenced installation standards and manufacturer's written recommendations.

B. Laminating Adhesive: Adhesive or joint compound recommended for directly adhering gypsum panels to continuous substrate.

2.8 TEXTURE FINISHES

A. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, the following:

1. Texture Finish:

a. Goldbond Building Products, "Perfect Spray Em."
b. United States Gypsum Co.; SHEETROCK Wall and Ceiling Spray Texture.
c. Georgia Pacific, "GyProc Wall and Ceiling Texture."

2. Primer:

a. Hamilton Materials, “Prep Coat Plus.”
b. PPG SpeedHide® Max-Build High Build Drywall Surfacer 6-1.
c. Sherwin Williams Builders Solution A63W100 Latex Surfacer.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine areas and substrates, with Installer present, and including welded hollow-metal frames, cast-in anchors, and structural framing, for compliance with requirements and other conditions affecting performance. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 APPLYING AND FINISHING PANELS, GENERAL

A. Use moisture and mold resistance gypsum board in the following areas:

2. Restrooms
3. Janitor rooms
4. Wet rooms

B. Gypsum Board Application and Finishing Standards: ASTM C 840 and GA-216.

C. Install ceiling board panels across framing to minimize the number of abutting end joints and to avoid abutting end joints in the central area of each ceiling. Stagger abutting end joints of adjacent panels not less than one framing member.

D. Install gypsum panels with face side out. Butt panels together for a light contact at edges and ends with not more than 1/16 inch (1.5 mm) of open space between panels. Do not force into place.

E. Locate edge and end joints over supports, except in ceiling applications where intermediate supports or gypsum board back-blocking is provided behind end joints. Do not place tapered edges against cut edges or ends. Stagger vertical joints on opposite sides of partitions. Do not make joints other than control joints at corners of framed openings.

F. Attach gypsum panels to steel studs so leading edge or end of each panel is attached to open (unsupported) edges of stud flanges first.

G. Attach gypsum panels to framing provided at openings and cutouts.

H. Cover both faces of stud partition framing with gypsum panels in concealed spaces (above ceilings, etc.), except in chases braced internally.

1. Unless concealed application is indicated or required for sound, fire, air, or smoke ratings, coverage may be accomplished with scraps of not less than 8 sq. ft. (0.7 sq. m) in area.
2. Fit gypsum panels around ducts, pipes, and conduits.
3. Where partitions intersect open concrete coffers, concrete joists, and other structural members projecting below underside of floor/roof slabs and decks, cut gypsum panels to fit profile formed by coffers, joists, and other structural members; allow 1/4- to 3/8-inch-(6.4- to 9.5-mm-) wide joints to install sealant.

I. Space fasteners in gypsum panels according to referenced gypsum board application and finishing standard and manufacturer's written recommendations.

1. 12” OC maximum, see drawings for more restrictive locations.

J. Clean all stud cavities of debris, excess materials and dust prior to closing wall in.

3.3 PANEL APPLICATION METHODS

A. Single-Layer Application:

1. On ceilings, apply gypsum panels before wall/partition board application to the greatest extent possible and at right angles to framing, unless otherwise indicated.
2. On partitions/walls, apply gypsum panels horizontally (perpendicular to framing), unless otherwise indicated or required by fire-resistance-rated assembly, and minimize end joints.

a. Stagger abutting end joints not less than one framing member in alternate courses of board.

B. Single-Layer Fastening Methods: Apply gypsum panels to supports with steel drill screws.

1. #6 x 1” minimum.

C. Tile Backing Panels:

1. Water-Resistant Gypsum Backing Board: Install at showers, tubs and where indicated. Install with ¼-inch (6.4mm) gap where panels abut other construction or penetrations.
2. Glass Mat, Water Resistant Backing Panel: Comply with manufacturer’s written installation instructions and install at showers and where indicated to receive tile. Install with ¼-inch (6.4mm) gap where panels abut other construction or penetrations.
3. Cementitious Backer Units: ANSI A108.11 at locations indicated on plans.
4. Areas Not Subject to Wetting: Install standard gypsum wallboard panels to produce a flat surface except at showers, tubs and other locations indicated to receive water-resistant panels.
5. Where tile backing panels abut other types of panels in the same plane, shim surfaces to produce a uniform plane across panel surfaces.
6. Provide membrane per installation requirements per TCNA assembly.

3.4 INSTALLING TRIM ACCESSORIES

A. General: For trim with back flanges intended for fasteners, attach to framing with same fasteners used for panels. Otherwise, attach trim according to manufacturer's written instructions.

B. Control Joints: Install control joints at locations indicated on Drawings

3.5 FINISHING GYPSUM BOARD ASSEMBLIES

A. General: Treat gypsum board joints, interior angles, edge trim, control joints, penetrations, fastener heads, surface defects, and elsewhere as required to prepare gypsum board surfaces for decoration. Promptly remove residual joint compound from adjacent surfaces.

B. Prefill open joints, rounded or beveled edges, and damaged surface areas.

C. Apply joint tape over gypsum board joints, except those with trim having flanges not intended for tape.

D. Gypsum Board Finish Levels: Finish panels to levels indicated below, according to ASTM C 840, for locations indicated:

1. Level 1: Embed tape at joints in ceiling plenum areas, concealed areas, and where indicated, unless a higher level of finish is required for fire-resistance-rated assemblies and sound-rated assemblies.
2. Level 2: Embed tape and apply separate first coat of joint compound to tape, fasteners, and trim flanges where [panels are substrate for acoustical tile].
3. Level 3: Embed tape and apply separate first and fill coats of joint compound to tape, fasteners, and trim flanges where indicated.
4. Level 4: Embed tape and apply separate first, fill, and finish coats of joint compound to tape, fasteners, and trim flanges at panel surfaces that will be exposed to view, unless otherwise indicated.

5. Level 5: Embed tape and apply separate first, fill, and finish coats of joint compound to tape, fasteners, and trim flanges, and apply skim coat of joint compound over entire surface where indicated.

E. Glass-Mat Gypsum Sheathing Board: Finish according to manufacturer's written instructions for use as exposed soffit board.

F. Glass-Mat, Water-Resistant Backing Panels: Finish according to manufacturer's written instructions.

3.6 APPLYING TEXTURE FINISHES

A. Surface Preparation and Primer: Prepare and apply primer to gypsum panels and other surfaces receiving texture finishes prior to applying texture finish. Apply primer to surfaces that are clean, dry, and smooth. The primer shall be applied to a dry film thickness of 1.7 to 1.8 mils.

B. Texture Finish Application: Mix and apply finish using powered spray equipment, to produce a uniform texture matching approved mockup and free of starved spots or other evidence of thin application or of application patterns.

1. Texture: Medium stipple at walls/ceilings painted eggshell.

C. Prevent texture finishes from coming into contact with surfaces not indicated to receive texture finish by covering them with masking agents, polyethylene film, or other means. If, despite these precautions, texture finishes contact these surfaces, immediately remove droppings and overspray to prevent damage according to texture finish manufacturer's written recommendations. Light stipple at restrooms and selected rooms painted semi-gloss.

3.7 FIELD QUALITY CONTROL.

A. Above-Ceiling Observation: The Architect will conduct an above-ceiling observation before installing gypsum board ceilings and report deficiencies in the Work observed. Do not proceed with installation of gypsum board to ceiling support framing until deficiencies have been corrected.

1. Notify the Architect seven days in advance of date and time when Project, or part of Project, will be ready for above-ceiling observation.

END OF SECTION 092900

SECTION 093013 - CERAMIC TILING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Unglazed ceramic mosaic tile.
2. Glazed wall tile.
3. Waterproof membrane for thinset applications.
4. Crack isolation membrane.

1.3 DEFINITIONS

A. General: Definitions in the ANSI A108 series of tile installation standards and in ANSI A137.1 apply to Work of this Section unless otherwise specified.

B. ANSI A108 Series: ANSI A108.01, ANSI A108.02, ANSI A108.1A, ANSI A108.1B, ANSI A108.1C, ANSI A108.4, ANSI A108.5, ANSI A108.6, ANSI A108.8, ANSI A108.9, ANSI A108.10, ANSI A108.11, ANSI A108.12, ANSI A108.13, ANSI A108.14, ANSI A108.15, ANSI A108.16, and ANSI A108.17, which are contained in its "Specifications for Installation of Ceramic Tile."

C. Face Size: Actual tile size, excluding spacer lugs.

D. Module Size: Actual tile size plus joint width indicated.

1.4 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.

1. Review requirements in ANSI A108.01 for substrates and for preparation by other trades.

1.5 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Shop Drawings: Show locations of each type of tile and tile pattern. Show widths, details, and locations of expansion, contraction, control, and isolation joints in tile substrates and finished tile surfaces.

C. Samples for Verification:

1. Full-size units of each type and composition of tile and for each color and finish required. For ceramic mosaic tile in color blend patterns, provide full sheets of each color blend.
2. Full-size units of each type of trim and accessory for each color and finish required.

1.6 MAINTENANCE MATERIAL SUBMITTALS

A. Furnish extra materials that match and are from same production runs as products installed and that are packaged with protective covering for storage and identified with labels describing contents.

1. Tile and Trim Units: Furnish quantity of full-size units equal to 3 percent of amount installed for each type, composition, color, pattern, and size indicated.

2. Grout: Furnish quantity of grout equal to 3 percent of amount installed for each type, composition, and color indicated.

1.7 QUALITY ASSURANCE

A. Installer Qualifications:

1. Installer is a Five-Star member of the National Tile Contractors Association or a Trowel of Excellence member of the Tile Contractors' Association of America.
2. Installer's supervisor for Project holds the International Masonry Institute's Foreman Certification.
3. Installer employs only Ceramic Tile Education Foundation Certified Installers or installers recognized by the U.S. Department of Labor as Journeyman Tile Layers for Project.
4. Installer employs at least one installer for Project that has completed the Advanced Certification for Tile Installers (ACT) certification for installation of mud floors mud walls membranes shower receptors gauged porcelain tile/gauged porcelain tile panels and slabs and large format tile.

1.8 DELIVERY, STORAGE, AND HANDLING

A. Deliver and store packaged materials in original containers with seals unbroken and labels intact until time of use. Comply with requirements in ANSI A137.1 for labeling tile packages.

B. Store tile and cementitious materials on elevated platforms, under cover, and in a dry location.

C. Store aggregates where grading and other required characteristics can be maintained and contamination can be avoided.

D. Store liquid materials in unopened containers and protected from freezing.

1.9 FIELD CONDITIONS

A. Environmental Limitations: Do not install tile until construction in spaces is complete and ambient temperature and humidity conditions are maintained at the levels indicated in referenced standards and manufacturer's written instructions.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Source Limitations for Tile: Obtain tile from single source or producer.

1. Obtain tile of each type and color or finish from same production run and of consistent quality in appearance and physical properties for each contiguous area.

2.2 PRODUCTS, GENERAL

A. ANSI Ceramic Tile Standard: Provide tile that complies with ANSI A137.1 for types, compositions, and other characteristics indicated.

1. Provide tile complying with Standard grade requirements unless otherwise indicated.

B. ANSI Standards for Tile Installation Materials: Provide materials complying with ANSI A108.02, ANSI standards referenced in other Part 2 articles, ANSI standards referenced by TCNA installation methods specified in tile installation schedules, and other requirements specified.

C. Mounting: For factory-mounted tile, provide back- or edge-mounted tile assemblies as standard with manufacturer unless otherwise indicated.

2.3 TILE PRODUCTS

A. Ceramic Tile Type UCMT - 1: Factory-mounted unglazed ceramic mosaic tile.

1. Manufacturers: Subject to compliance with requirements, provide products by the following:

a. Daltile “Keystones”.

2. Composition: Porcelain.

3. Certification: Porcelain tile certified by the Porcelain Tile Certification Agency.
4. Module Size: 1 by 1 inches.
5. Thickness: 1/4 inch.
6. Face: Plain with cushion edges.

7. Dynamic Coefficient of Friction: Not less than 0.6.

8. Tile Pattern: Random Blend
9. Tile Color: As selected by Architect from manufacturer’s full range.
   Group 2 - 92%
   Group 3 – 4%
   Group 5 – 4%

10. Grout Color: As Selected by Architect from manufacturer’s full range.

B. Ceramic Tile Type GWT - 1: Glazed wall tile.

1. Manufacturers: Subject to compliance with requirements, provide products by the following:

a. Daltile ”Color Wheel Classic”.

2. Module Size: 4 by 4 inches.
3. Thickness: 5/16 inch.
4. Face: Plain with cushion edges.
5. Finish: As selected by Architect.
6. Tile Color: As selected by Architect from manufacturer’s full range.
7. Grout Color: As selected by Architect from manufacturer’s full range.
8. Trim Units: Coordinated with sizes and coursing of adjoining flat tile where applicable. Provide shapes as follows, selected from manufacturer's standard shapes:

    a. External Corners for Thinset Mortar Installations: Surface bullnose, same size as adjoining flat tile.
    b. External corner for Mud set installation: Radin’s Bullnose (Match existing)
    c. Internal Corners: Field-butted square corners.
    d. Base Cove: Coved, same as adjoining flat tile.
    e. Wains coating top: Radius Bullnose waterproof.

2.4 CRACK ISOLATION MEMBRANE

A. General: Manufacturer's standard product that complies with ANSI A118.12 for standard performance and is recommended by the manufacturer for the application indicated. Membrane to comply with ANSI A118.10-LV for waterproofing membranes. Include reinforcement and accessories recommended by manufacturer.

B. Chlorinated Polyethylene Sheet: Nonplasticized, chlorinated polyethylene faced on both sides with nonwoven polyester fabric; 0.030-inch nominal thickness.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

    a. Noble Company (The).

C. Liquid Applied Membrane: Provide coverage per manufacturer requirements.
Products

1. Red Gard waterproofing and crack prevention membrane, custom building products.
2. Mapelastic aqua defense, Mapei

2.5 SETTING MATERIALS

A. Standard Dry-Set Mortar (Thinset): ANSI A118.1.

1. Manufacturers: Subject to compliance with requirements, provide products by the following:

    a. Custom Building Products.

2. For wall applications, provide mortar that complies with requirements for nonsagging mortar in addition to the other requirements in ANSI A118.1.

2.6 GROUT MATERIALS

A. Sand-Portland Cement Grout: ANSI A108.10, consisting of white or gray cement and white or colored aggregate as required to produce color indicated.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

a. Custom Building Products.

2.7 MISCELLANEOUS MATERIALS

A. Tile Cleaner: A neutral cleaner capable of removing soil and residue without harming tile and grout surfaces, specifically approved for materials and installations indicated by tile and grout manufacturers.

B. Floor Sealer: Manufacturer's standard product for sealing grout joints and that does not change color or appearance of grout.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

a. Custom Building Products.

2.8 MIXING MORTARS AND GROUT

A. Mix mortars and grouts to comply with referenced standards and mortar and grout manufacturers' written instructions.

B. Add materials, water, and additives in accurate proportions.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions where tile will be installed, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.

1. Verify that substrates for setting tile are firm; dry; clean; free of coatings that are incompatible with tile-setting materials, including curing compounds and other substances that contain soap, wax, oil, or silicone; and comply with flatness tolerances required by ANSI A108.01 for installations indicated.
2. Verify that concrete substrates for tile floors installed with adhesives bonded mortar bed or thinset mortar comply with surface finish requirements in ANSI A108.01 for installations indicated.

a. Verify that surfaces that received a steel trowel finish have been mechanically scarified.
b. Verify that protrusions, bumps, and ridges have been removed by sanding or grinding.

3. Verify that installation of grounds, anchors, recessed frames, electrical and mechanical units of work, and similar items located in or behind tile has been completed.

4. Verify that joints and cracks in tile substrates are coordinated with tile joint locations; if not coordinated, adjust joint locations in consultation with Architect.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Fill cracks, holes, and depressions in concrete substrates for tile floors installed with adhesives or thinset mortar with trowelable leveling and patching compound specifically recommended by tile-setting material manufacturer.

B. Where indicated, prepare substrates to receive waterproof membrane by applying a reinforced mortar bed that complies with ANSI A108.1A and is sloped 1/4 inch per foot (1:50) toward drains.

C. Blending: For tile exhibiting color variations, verify that tile has been factory blended and packaged so tile units taken from one package show same range of colors as those taken from other packages and match approved Samples. If not factory blended, either return to manufacturer or blend tiles at Project site before installing.

3.3 INSTALLATION OF CERAMIC TILE

A. Comply with TCNA's "Handbook for Ceramic, Glass, and Stone Tile Installation" for TCNA installation methods specified in tile installation schedules. Comply with parts of the ANSI A108 series "Specifications for Installation of Ceramic Tile" that are referenced in TCNA installation methods, specified in tile installation schedules, and apply to types of setting and grouting materials used.

1. For the following installations, follow procedures in the ANSI A108 series of tile installation standards for providing 95 percent mortar coverage:

a. Tile floors in wet areas.
b. Tile floors consisting of tiles 8 by 8 inches (200 by 200 mm) or larger.
c. Tile floors consisting of rib-backed tiles.

B. Extend tile work into recesses and under or behind equipment and fixtures to form complete covering without interruptions unless otherwise indicated. Terminate work neatly at obstructions, edges, and corners without disrupting pattern or joint alignments.

C. Accurately form intersections and returns. Perform cutting and drilling of tile without marring visible surfaces. Carefully grind cut edges of tile abutting trim, finish, or built-in items for straight aligned joints. Fit tile closely to electrical outlets, piping, fixtures, and other penetrations so plates, collars, or covers overlap tile.

D. Provide manufacturer's standard trim shapes where necessary to eliminate exposed tile edges.

E. Where accent tile differs in thickness from field tile, vary setting-bed thickness so that tiles are flush.

F. Jointing Pattern: Lay tile in grid pattern unless otherwise indicated. Lay out tile work and center tile fields in both directions in each space or on each wall area. Lay out tile work to minimize the use of pieces that are less than half of a tile. Provide uniform joint widths unless otherwise indicated.

1. For tile mounted in sheets, make joints between tile sheets same width as joints within tile sheets so joints between sheets are not apparent in finished work.
2. Where adjoining tiles on floor, base, walls, or trim are specified or indicated to be same size, align joints.
3. Where tiles are specified or indicated to be whole integer multiples of adjoining tiles on floor, base, walls, or trim, align joints unless otherwise indicated.

G. Joint Widths: Unless otherwise indicated, install tile with the following joint widths:

1. Ceramic Mosaic Tile: 1/16 inch 1.6 mm.
2. Glazed Wall Tile: 1/16 inch 1.6 mm.

H. Expansion Joints: Provide expansion joints and other sealant-filled joints, including control, contraction, and isolation joints, where indicated. Form joints during installation of setting materials, mortar beds, and tile. Do not saw-cut joints after installing tiles.

1. Where joints occur in concrete substrates, locate joints in tile surfaces directly above them.
2. Do not extend cleavage membrane waterproof membrane or crack isolation membrane under thresholds set in mortar. Fill joints between such thresholds and adjoining tile set with elastomeric sealant.

I. Floor Sealer: Apply floor sealer to cementitious grout joints in tile floors according to floor-sealer manufacturer's written instructions. As soon as floor sealer has penetrated grout joints, remove excess sealer and sealer from tile faces by wiping with soft cloth.

3.4 INSTALLATION OF WATERPROOF MEMBRANE

A. Install waterproof membrane to comply with ANSI A108.13 and manufacturer's written instructions to produce waterproof membrane of uniform thickness that is bonded securely to substrate.

B. Allow waterproof membrane to cure and verify by testing that it is watertight before installing tile or setting materials over it.

3.5 INSTALLATION OF CRACK ISOLATION MEMBRANE

A. Install crack isolation membrane to comply with ANSI A108.17 and manufacturer's written instructions to produce membrane of uniform thickness that is bonded securely to substrate.

B. Allow crack isolation membrane to cure before installing tile or setting materials over it.

3.6 ADJUSTING AND CLEANING

A. Remove and replace tile that is damaged or that does not match adjoining tile. Provide new matching units, installed as specified and in a manner to eliminate evidence of replacement.

B. Cleaning: On completion of placement and grouting, clean all ceramic tile surfaces so they are free of foreign matter.

1. Remove grout residue from tile as soon as possible.
2. Clean grout smears and haze from tile according to tile and grout manufacturer's written instructions but no sooner than 10 days after installation. Use only cleaners recommended by tile and grout manufacturers and only after determining that cleaners

are safe to use by testing on samples of tile and other surfaces to be cleaned. Protect metal surfaces and plumbing fixtures from effects of cleaning. Flush surfaces with clean water before and after cleaning.

3.7 PROTECTION

A. Protect installed tile work with kraft paper or other heavy covering during construction period to prevent staining, damage, and wear. If recommended by tile manufacturer, apply coat of neutral protective cleaner to completed tile walls and floors.

B. Prohibit foot and wheel traffic from tiled floors for at least seven days after grouting is completed.

C. Before final inspection, remove protective coverings and rinse neutral protective cleaner from tile surfaces.

3.8 INTERIOR CERAMIC TILE INSTALLATION SCHEDULE

A. Interior Floor Installations, Concrete Subfloor:

1. Ceramic Tile Installation: TCNA F111 and ANSI A108.1C; cement mortar bed (thickset) with cleavage membrane waterproof membrane.

    a. Ceramic Tile Type: UCMT.

    b. Bond Coat for Cured-Bed Method: Standard dry-set mortar.
    c. Grout: Sand-portland cement or Standard sanded grout.ANSI A108.1A is wet-set method, ANSI A108.1B is cured-bed method, and ANSI A108.1C allows Contractor choice of using either method.

2. Ceramic Tile Installation: TCNA F122; thinset mortar on waterproof membrane.

    a. Ceramic Tile Type: UCMT
    b. Thinset Mortar: Modified dry-set mortar.
    c. Grout: High-performance sanded grout.

B. Interior Wall Installations, Wood Studs or Furring:

1. Ceramic Tile Installation: TCNA W245; thinset mortar on backer board.

    a. Ceramic Tile Type: GWT.
    b. Thinset Mortar: Standard dry-set mortar.
    c. Grout: Sand-portland cement or Standard sanded grout.

2. Ceramic Tile Installation: TCNA W231/W241; cement mortar bed (thickset).

    a. Ceramic Tile Type: GWT
    b. Bond Coat for Wet-Set Method: Modified dry-set mortar.
    c. Bond Coat for Cured-Bed Method: Modified dry-set mortar.
    d. Grout: Standard-Portland cement standard sanded cement.

END OF SECTION 093013

SECTION 099000 - PAINTING

03/04/25

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 0 & 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes, but is not limited to, surface preparation and field painting of the following:

1. Exposed interior items and surfaces.

B. Paint exposed surfaces, except where the paint schedules indicate that a surface or material is not to be painted or is to remain natural. If the paint schedules do not specifically mention an item or a surface, paint the item or surface the same as similar adjacent materials or surfaces whether or not schedules indicate colors. If the schedules do not indicate color or finish, the Architect will select from standard colors and finishes available.

C. Do not paint prefinished items, concealed surfaces, finished metal surfaces, operating parts, and labels.

1. Prefinished items include the following factory-finished components:

a. Acoustical wall panels.
b. Toilet enclosures.
c. Metal lockers.
d. Unit kitchens.
e. Elevator entrance doors and frames.
f. Elevator equipment.
g. Finished mechanical and electrical equipment.
h. Light fixtures.
i. Acoustical ceiling panels.
j. Wall covering/VTS board.
k. Fire Sprinkler sprinklers
l. Wood doors prefinished from door supplier
m. Casework prefinished by cabinet supplier.

2. Concealed surfaces include walls or ceilings in the following generally inaccessible spaces:

a. Foundation spaces.
b. Furred areas.
c. Ceiling plenums.
d. Utility tunnels.
e. Pipe spaces.
f. Duct shafts.
g. Elevator shafts.

3. Finished metal surfaces include the following:

a. Anodized aluminum.

b. Stainless steel.
c. Chromium plate.
d. Copper.
e. Bronze and brass.

4. Operating parts include moving parts of operating equipment and the following:

a. Valve and damper operators.
b. Linkages.
c. Sensing devices.
d. Motor and fan shafts.

5. Labels: Do not paint over Underwriters Laboratories (UL), Factory Mutual (FM), or other code-required labels or equipment name, identification, performance rating, or nomenclature plates.

6. Concealed surfaces to be painted:

a. Back prime wood.
b. Back prime wood cabinets.

1.3 DEFINITIONS

A. General: Standard coating terms defined in ASTM D 16 apply to this Section.

1. Flat refers to a lusterless or matte finish with a gloss range below 15 when measured at an 85-degree meter.
2. Eggshell refers to low-sheen finish with a gloss range between 5 and 20 when measured at a 60-degree meter.
3. Satin refers to low-sheen finish with a gloss range between 15 and 35 when measured at a 60-degree meter.
4. Semigloss refers to medium-sheen finish with a gloss range between 30 and 65 when measured at a 60-degree meter.
5. Full gloss refers to high-sheen finish with a gloss range more than 65 when measured at a 60-degree meter.

1.4 SUBMITTALS

A. Product Data: For each paint system specified. Include block fillers and primers.

1. Material List: Provide an inclusive list of required coating materials. Indicate each material and cross-reference specific coating, finish system, and application. Identify each material by manufacturer's catalog number and general classification.
2. Certification by the manufacturer that products supplied comply with federal, state and local regulations controlling use of volatile organic compounds (VOCs).

B. Samples for Initial Selection: Manufacturer's color charts showing the full range of colors available for each type of finish-coat material indicated.

C. Samples for Verification: Of each color and material to be applied, with texture to simulate actual conditions, on representative Samples of the actual substrate.

1. Provide stepped Samples, defining each separate coat, including block fillers and primers. Use representative colors when preparing Samples for review. Resubmit until required

sheen, color, and texture are achieved.

2. Provide a list of materials and applications for each coat of each sample. Label each sample for location and application.
3. Submit Samples on the following substrates for the Architect's review of color and texture only:

    a. Concrete: Provide two 4-inch- (100-mm-) square samples for each color and finish.
    b. Cement Plaster: Provide two 4-inch- (100-mm-) square samples for each color and finish.
    c. Concrete Masonry: Provide two 4-by-8-inch (100-by-200-mm) samples of masonry, with mortar joint in the center, for each finish and color.
    d. Painted Wood: Provide two 12-inch- (300-mm-) square samples of each color and material on hardboard.
    e. Stained or Natural Wood: Provide two 4-by-8-inch (100-by-200-mm) samples of natural- or stained-wood finish on actual wood surfaces.
    f. Ferrous Metal: Provide two 4-inch- (100-mm-) square samples of flat metal and two 8-inch- (200-mm-) long samples of solid metal for each color and finish.

D. Project Closeout Requirement:

1. Extra materials.

1.5 QUALITY ASSURANCE

A. Source Limitations: Obtain block fillers, primers, and undercoat materials for each coating system from the same manufacturer as the finish coats.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials to the Project Site in manufacturer's original, unopened packages and containers bearing manufacturer's name and label, and the following information:

1. Product name or title of material.
2. Product description (generic classification or binder type).
3. Manufacturer's stock number and date of manufacture.
4. Contents by volume, for pigment and vehicle constituents.
5. Thinning instructions.
6. Application instructions.
7. Color name and number.
8. VOC content.

B. Store materials not in use in tightly covered containers in a well-ventilated area at a minimum ambient temperature of 45 deg F (7 deg C). Maintain containers used in storage in a clean condition, free of foreign materials and residue.

1. Protect from freezing. Keep storage area neat and orderly. Remove oily rags and waste daily. Take necessary measures to ensure that workers and work areas are protected from fire and health hazards resulting from handling, mixing, and application.

1.7 PROJECT CONDITIONS

A. Apply water-based paints only when the temperature of surfaces to be painted and surrounding air temperatures are between 50 and 90 deg F (10 and 32 deg C).

B. Apply solvent-thinned paints only when the temperature of surfaces to be painted and surrounding air temperatures are between 45 and 95 deg F (7.2 and 35 deg C).

C. Do not apply paint in snow, rain, fog, or mist; or when the relative humidity exceeds 85 percent; or at temperatures less than 5 deg F (3 deg C) above the dew point; or to damp or wet surfaces.

1. Painting may continue during inclement weather if surfaces and areas to be painted are enclosed and heated within temperature limits specified by manufacturer during application and drying periods.

1.8 EXTRA MATERIALS

A. Furnish extra paint materials from the same production run as the materials applied in the quantities described below. Package paint materials in unopened, factory-sealed containers for storage and identify with labels describing contents. Deliver extra materials to the Owner.

1. Quantity: Furnish the Owner with extra paint materials in the quantities indicated below:

a. Wall Paint: Four (4) gallons unopened of each color applied.
b. Door/Trim: Four (4) gallons unopened of each color applied.
c. Stain: Two (2) gallons unopened of each color applied.
d. Exterior: Ten (10) gallons unopened of each color applied.
e. Exterior Trim: Five (5) gallons unopened of each color applied.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Available Products: Where Specifications name a product, or refer to a product indicated on Drawings, and include a list of manufacturer(s), provide the specified or indicated product or a comparable product.

B. Manufacturers Names: The following manufacturers are referred to in the paint schedules by use of shortened versions of their names, which are shown in parentheses:

1. Sherwin-Williams Co. (S-W).
2. Trinity Coating Co.
3. Gemini Coating Co.
4. Evonik

2.2 PAINT MATERIALS, GENERAL

A. Material Compatibility: Provide block fillers, primers, undercoats, and finish-coat materials that are compatible with one another and the substrates indicated under conditions of service and application, as demonstrated by manufacturer based on testing and field experience.

B. Material Quality: Provide manufacturer's best-quality paint material of the various coating types specified. Paint-material containers not displaying manufacturer's product identification will not be acceptable.

1. Proprietary Names: Use of manufacturer's proprietary product names to designate colors or materials is not intended to imply that products named are required to be used to the exclusion of equivalent products of other manufacturers. Furnish manufacturer's material data and certificates of performance for proposed substitutions.

C. Colors: Provide color selections made by the Architect.

1. Allow for colors as follows:

a. Each room shall have one (1) field color and one (1) accent wall color. (This does not include doors, frames and miscellaneous items.
b. Rooms over 250 square feet, allow for one (1) field color and two (2) accent wall colors.
c. Refer to plans for more restrictive requirement where more colors per room are required.
d. Rooms over 500 square feet, allow for one (1) field color and three (3) accent wall colors.
e. Allow for stain colors:

1) Doors – One (1) color
2) Caseworks – One (1) color
3) Trims/ Custom Woodwork – One (1) color

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with the Applicator present, under which painting will be performed for compliance with paint application requirements.

1. Do not begin to apply paint until unsatisfactory conditions have been corrected and surfaces receiving paint are thoroughly dry.
2. Start of painting will be construed as the Applicator's acceptance of surfaces and conditions within a particular area.

B. Coordination of Work: Review other Sections in which primers are provided to ensure compatibility of the total system for various substrates. On request, furnish information on characteristics of finish materials to ensure use of compatible primers.

1. Notify the Architect about anticipated problems using the materials specified over substrates primed by others.

3.2 PREPARATION

A. General: Remove hardware and hardware accessories, plates, machined surfaces, lighting fixtures, and similar items already installed that are not to be painted. If removal is impractical or impossible because of the size or weight of the item, provide surface-applied protection before surface preparation and painting.

1. After completing painting operations in each space or area, reinstall items removed using workers skilled in the trades involved.

B. Cleaning: Before applying paint or other surface treatments, clean the substrates of substances that could impair the bond of the various coatings. Remove oil and grease before cleaning.

1. Schedule cleaning and painting so dust and other contaminants from the cleaning process will not fall on wet, newly painted surfaces.

C. Surface Preparation: Clean and prepare surfaces to be painted according to manufacturer's written instructions for each particular substrate condition and as specified.

1. Provide barrier coats over incompatible primers or remove and reprime.
2. Cementitious Materials: Prepare concrete, concrete masonry block, cement plaster, and mineral-fiber-reinforced cement panel surfaces to be painted. Remove efflorescence, chalk, dust, dirt, grease, oils, and release agents. Roughen as required to remove glaze. If hardeners or sealers have been used to improve curing, use mechanical methods of surface preparation.

    a. Use abrasive blast-cleaning methods if recommended by paint manufacturer.
    b. Determine alkalinity and moisture content of surfaces by performing appropriate tests. If surfaces are sufficiently alkaline to cause the finish paint to blister and burn, correct this condition before application. Do not paint surfaces where moisture content exceeds that permitted in manufacturer's written instructions.
    c. Clean concrete floors to be painted with a 5 percent solution of muriatic acid or other etching cleaner. Flush the floor with clean water to remove acid, neutralize with ammonia, rinse, allow to dry, and vacuum before painting.

3. Wood: Clean surfaces of dirt, oil, and other foreign substances with scrapers, mineral spirits, and sandpaper, as required. Sand surfaces exposed to view smooth and dust off.

    a. Scrape and clean small, dry, seasoned knots, and apply a thin coat of white shellac or other recommended knot sealer before applying primer. After priming, fill holes and imperfections in finish surfaces with putty or plastic wood filler. Sand smooth when dried.
    b. Prime, stain, or seal wood to be painted immediately on delivery. Prime edges, ends, faces, undersides, and backsides of wood, including cabinets, counters, cases, and paneling.
    c. When transparent finish is required, backprime with spar varnish.
    d. Backprime paneling on interior partitions where masonry, plaster, or other wet wall construction occurs on backside.
    e. Seal tops, bottoms, and cutouts of unprimed wood doors with a heavy coat of varnish or sealer immediately on delivery.

4. Ferrous Metals: Clean ungalvanized ferrous-metal surfaces that have not been shop coated; remove oil, grease, dirt, loose mill scale, and other foreign substances. Use solvent or mechanical cleaning methods that comply with the Steel Structures Painting Council's (SSPC) recommendations.

    a. Treat bare and sandblasted or pickled clean metal with a metal treatment wash coat before priming.
    b. Touch up bare areas and shop-applied prime coats that have been damaged. Wire-brush, clean with solvents recommended by paint manufacturer, and touch up with the same primer as the shop coat.
    c. Apply stripe coat (second coat of primer) on edges, bolts, angles, and welds.

5. Galvanized Surfaces: Clean galvanized surfaces with nonpetroleum-based solvents so surface is free of oil and surface contaminants. Remove pretreatment from galvanized

sheet metal fabricated from coil stock by mechanical methods.

D. Materials Preparation: Mix and prepare paint materials according to manufacturer's written instructions.

1. Maintain containers used in mixing and applying paint in a clean condition, free of foreign materials and residue.
2. Stir material before application to produce a mixture of uniform density. Stir as required during application. Do not stir surface film into material. If necessary, remove surface film and strain material before using.
3. Use only thinners approved by paint manufacturer and only within recommended limits.

E. Tinting: Tint each undercoat a lighter shade to simplify identification of each coat when multiple coats of the same material are applied. Tint undercoats to match the color of the finish coat, but provide sufficient differences in shade of undercoats to distinguish each separate coat.

3.3 APPLICATION

A. General: Apply paint according to manufacturer's written instructions. Use applicators and techniques best suited for substrate and type of material being applied.

1. Paint colors, surface treatments, and finishes are indicated in the schedules.
2. Do not paint over dirt, rust, scale, grease, moisture, scuffed surfaces, or conditions detrimental to formation of a durable paint film.
3. Provide finish coats that are compatible with primers used.
4. The term "exposed surfaces" includes areas visible when permanent or built-in fixtures, convector covers, covers for finned-tube radiation, grilles, and similar components are in place. Extend coatings in these areas, as required, to maintain the system integrity and provide desired protection.
5. Paint surfaces behind movable equipment and furniture the same as similar exposed surfaces. Before the final installation of equipment, paint surfaces behind permanently fixed equipment or furniture with prime coat only.
6. Paint interior surfaces of ducts with a flat, nonspecular black paint where visible through registers or grilles.
7. Paint back sides of access panels and removable or hinged covers to match exposed surfaces.
8. Finish exterior doors on tops, bottoms, and side edges the same as exterior faces.
9. Finish interior of wall and base cabinets and similar field-finished casework to match existing.
10. Sand lightly between each succeeding enamel or varnish coat.

B. Scheduling Painting: Apply first coat to surfaces that have been cleaned, pretreated, or otherwise prepared for painting as soon as practicable after preparation and before subsequent surface deterioration.

1. The number of coats and the film thickness required are the same regardless of application method. Do not apply succeeding coats until the previous coat has cured as recommended by the manufacturer. If sanding is required to produce a smooth, even surface according to manufacturer's written instructions, sand between applications.
2. Omit primer on metal surfaces that have been shop primed and touchup painted.
3. If undercoats, stains, or other conditions show through final coat of paint, apply additional coats until paint film is of uniform finish, color, and appearance. Give special attention to ensure edges, corners, crevices, welds, and exposed fasteners receive a dry film thickness equivalent to that of flat surfaces.
4. Allow sufficient time between successive coats to permit proper drying. Do not recoat

surfaces until paint has dried to where it feels firm, does not deform or feel sticky under moderate thumb pressure, and where application of another coat of paint does not cause the undercoat to lift or lose adhesion.

C. Application Procedures: Apply paints and coatings by brush, roller, spray, or other applicators according to manufacturer's written instructions.

1. Brushes: Use brushes best suited for the type of material applied. Use brush of appropriate size for the surface or item being painted.
2. Rollers: Use rollers of carpet, velvet back, or high-pile sheep's wool as recommended by the manufacturer for the material and texture required, except on smooth metal surfaces.
3. Spray Equipment: Use airless spray equipment with orifice size as recommended by the manufacturer for the material and texture required. Use spray equipment on smooth metal surfaces.

D. Minimum Coating Thickness: Apply paint materials no thinner than manufacturer's recommended spreading rate. Provide the total dry film thickness of the entire system as recommended by the manufacturer.

E. Mechanical and Electrical Work: Painting of mechanical and electrical work is limited to items exposed in equipment rooms and in occupied spaces.

F. Mechanical items to be painted include, but are not limited to, the following:

1. Piping, pipe hangers, and supports exposed and not galvanized.
2. Heat exchangers.
3. Tanks.
4. Ductwork exposed except do not paint in mechanical rooms.
5. Access doors.
6. Grilles to match ceiling color--spray application, unless ceiling is white.
7. Motors and mechanical equipment.
8. Accessory items.

G. Electrical items to be painted include items may be prefinished, if so, match Architect’s color selected regardless of factory options, but are not limited to, the following:

1. Exposed conduit and fittings that are not galvanized or plastic.
2. Switchgear - spray application – interior/ exterior
3. Panel boards - spray application – interior/exterior
4. Transformers - exterior

H. Block Fillers: Apply block fillers to concrete masonry block at a rate to ensure complete coverage with pores filled.

I. Prime Coats: Before applying finish coats, apply a prime coat of material, as recommended by the manufacturer, to material that is required to be painted or finished and that has not been prime coated by others. Recoat primed and sealed surfaces where evidence of suction spots or unsealed areas in first coat appears, to ensure a finish coat with no burn through or other defects due to insufficient sealing.

J. Pigmented (Opaque) Finishes: Completely cover surfaces as necessary to provide a smooth, opaque surface of uniform finish, color, appearance, and coverage. Cloudiness, spotting, holidays, laps, brush marks, runs, sags, ropiness, or other surface imperfections will not be acceptable.

K. Transparent (Clear) Finishes: Use multiple coats to produce a glass-smooth surface film of even luster. Provide a finish free of laps, runs, cloudiness, color irregularity, brush marks, orange peel,

nail holes, or other surface imperfections. Provide stain coat on all transparent finishes.

1. Provide satin finish for final coats, unless noted otherwise.

L. Stipple Enamel Finish: Roll and redistribute paint to an even and fine texture. Leave no evidence of rolling, such as laps, irregularity in texture, skid marks, or other surface imperfections.

M. Completed Work: Match approved samples for color, texture, and coverage. Remove, refinish, or repaint work not complying with requirements.

3.4 CLEANING

A. Cleanup: At the end of each workday, remove empty cans, rags, rubbish, and other discarded paint materials from the site.

1. After completing painting, clean glass and paint-spattered surfaces. Remove spattered paint by washing and scraping. Be careful not to scratch or damage adjacent finished surfaces.

3.5 PROTECTION

A. Protect work of other trades, whether being painted or not, against damage by painting. Correct damage by cleaning, repairing or replacing, and repainting, as approved by Architect.

B. Provide "Wet Paint" signs to protect newly painted finishes. Remove temporary protective wrappings provided by others to protect their work after completing painting operations.

1. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces. Comply with procedures specified in PDCA P1.

3.6 SHEEN SCHEDULE - OPAQUE FINISH

ITEM	SHEEN
Interior:	
Walls, Type A finish	Eggshell
Ceiling, Type A finish	Eggshell
Walls, Type B finish	Semi-gloss
Ceiling, Type B finish	Semi-gloss
HM Doors and HM Frames	Semi-gloss
Window Frames, wood	Semi-gloss
Wood Trim, base and standing rails	Semi-gloss
Wood Paneling/Plywood	Eggshell
Vinyl Wall Covering	Eggshell
Wood Cabinets	Semi-gloss
Wood Doors	Semi-gloss
Existing Tackboards	Eggshell
Acoustic Wall Panels, 12x12	Flat

3.7 INTERIOR PAINT SCHEDULE

A. Concrete and Masonry (Other than Concrete Masonry Units): Provide the following paint systems over interior concrete and brick masonry surfaces:

1. Flat Acrylic Finish: 2 finish coats over a primer.

a. Primer: Alkali-resistant, acrylic-latex, interior primer applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 1.0 mil (0.025 mm).

1) S-W: Loxon Concrete & Masonry Primer/Sealer LX02W0050.

b. First and Second Coats: Flat, latex-based, interior paint applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 2.5 mils (0.064 mm).

1) S-W: ProMar 200 Flat B30W251.

2. Eggshell, Acrylic-Enamel Finish: 2 finish coats over a primer.

a. Primer: Alkali-resistant, acrylic-latex, interior primer applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 1.0 mil (0.025 mm).

1) S-W: Loxon Concrete & Masonry Primer/Sealer LX02W0050.

b. First and Second Coats: Eggshell, acrylic-latex, interior enamel applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 2.8 mils (0.071 mm).

1) S-W: Pro Mar 200 HP Eggshell.

B. Concrete Masonry Units: Provide the following finish systems over interior concrete masonry block units:

1. Flat Acrylic Finish: 2 finish coats over a block filler.

a. Block Filler: High-performance, latex-based, block filler applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 5.0 mils (0.13 mm).

1) S-W: Preprite Block Filler B25W25.

b. First and Second Coats: Flat, latex-based, interior paint applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 2.5 mils (0.064 mm).

1) S-W: Pro Mar 200 Flat B30W251.

2. Eggshell, Acrylic-Enamel Finish: 2 finish coats over a block filler.

a. Block Filler: High-performance, latex-based, block filler applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 5.0 mils (0.13 mm).

1) S-W: Preprite Block Filler B25W25.

b. First and Second Coats: Eggshell, acrylic-latex, interior enamel applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 2.8 mils (0.071 mm).

1) S-W: Pro Mar 200 HP Eggshell.

C. Gypsum Board: Provide the following finish systems over interior gypsum board surfaces:

1. Flat Acrylic Finish: 2 finish coats over a primer.

a. Primer: Latex-based, interior primer applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 1.2 mils (0.031 mm).

1) PrepRite 200 Primer B28W2600.

b. First and Second Coats: Flat, acrylic-latex-based, interior paint applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 2.5 mils (0.064 mm).

1) S-W: Pro Mar 200 Flat B30W251.

2. Eggshell, Acrylic-Enamel Finish: 2 finish coats over a primer.

a. Primer: Latex-based, interior primer applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 1.2 mils (0.031 mm).

1) S-W: Promar 200 Primer B28W2600.

b. First and Second Coats: Eggshell, acrylic-latex, interior enamel applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 2.8 mils (0.071 mm).

1) S-W: Pro Mar 200 HP Eggshell.

3. Semi-gloss, Acrylic-Enamel Finish: 2 finish coats over a primer.

a. Primer: Latex-based, interior primer applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 1.2 mils (0.031 mm).

1) S-W: Promar 200 Primer B28W2600.

b. First and Second Coats: Semi-gloss, acrylic-latex, interior enamel applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 2.8 mils (0.071 mm).

1) S-W: Pro Mar 200 HP Semi-Gloss.

D. Plaster: Provide the following finish systems over new, interior plaster surfaces:

1. Flat Acrylic Finish: 2 finish coats over a primer.

a. Primer: Alkali-resistant, acrylic-latex, interior primer applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less

than 1.4 mils (0.036 mm).

1) S-W: PrepRite 200 Primer B28W200.

b. First and Second Coats: Flat, acrylic-latex, interior paint applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 2.5 mils (0.064 mm).

1) S-W: Pro Mar 200 Flat B30W251.

2. Eggshell, Acrylic-Enamel Finish: 2 finish coats over a primer.

a. Primer: Alkali-resistant, alkyd- or latex-based, interior primer, as recommended by the manufacturer for this substrate, applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 1.2 mils (0.031 mm).

1) S-W: PrepRite 200 Primer B28W200.

b. First and Second Coats: Eggshell, acrylic-latex, interior enamel applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 2.8 mils (0.071 mm).

1) S-W: Pro Mar 200 HP Eggshell.

E. Woodwork and Hardboard: Provide the following paint finish systems over new, interior wood surfaces:

1. Eggshell, Acrylic-Enamel Finish: 2 finish coats over a primer.

a. Primer: Alkyd- or acrylic-latex-based, interior wood primer, as recommended by the manufacturer for this substrate, applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 1.4 mils (0.036 mm).

1) S-W: Premium Wall & Wood Primer B28W8111.

b. First and Second Coats: Eggshell, acrylic-latex, interior enamel applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 2.8 mils (0.071 mm).

1) S-W: Pro Classic Satin B20W51.

2. Semi-Gloss, Acrylic Enamel Finish: 2 finish coats over a primer.

a. Primer: Alkyd- or acrylic-latex-based, interior wood primer, as recommended by the manufacturer for this substrate, applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 1.4 mils (0.036 mm).

1) S-W: Premium Wall & Wood Primer B28W8111.

b. First and Second Coats: Semi gloss acrylic enamel applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 2.8 mils (0.071 mm).

1) S-W: Pro Classic Semi-Gloss B31W51.

F. Stained Woodwork: Provide the following stained finishes over new, interior woodwork:

1. Alkyd-Based, Satin-Varnish Finish: 2 finish coats of an alkyd-based, clear-satin varnish over a sealer coat and an alkyd-based, interior wood stain. Wipe wood filler before applying stain.

a. Filler Coat: Paste-wood filler applied at spreading rate recommended by the manufacturer.

1) S-W: Minwax Stainable Wood Filler (Product #428).

b. Stain Coat: Alkyd-based, interior wood stain applied at spreading rate recommended by the manufacturer.

1) S-W: Minax Performance Series Tintable Wood Stain 250 VOC.

c. Sealer Coat: Clear sanding sealer applied at spreading rate recommended by the manufacturer.

1) S-W: Minwax Water Based Helmsman Spar Urethane.

d. First and Second Finish Coats: Alkyd-based or polyurethane varnish, as recommended by the manufacturer, applied at spreading rate recommended by the manufacturer.

1) S-W: Minwax Water Based Helmsman Spar Urethane.

2. Waterborne, Satin-Varnish Finish: 2 finish coats of a waterborne, clear-satin varnish over a sealer coat and a waterborne, interior wood stain. Wipe wood filler before applying stain.

a. Filler Coat: Paste-wood filler applied at spreading rate recommended by the manufacturer.

1) S-W: Minwax Stainable Wood Filler (Product #428).

b. Stain Coat: Waterborne, interior wood stain applied at spreading rate recommended by the manufacturer.

1) S-W: Minax Performance Series Tintable Wood Stain 250 VOC.

c. Sealer Coat: Clear sanding sealer applied at spreading rate recommended by the manufacturer.

1) S-W: Minwax Water Based Helmsman Spar Urethane.

d. First and Second Finish Coats: Waterborne, varnish finish applied at spreading rate recommended by the manufacturer.

1) S-W: Minwax Water Based Helmsman Spar Urethane.

3. Water-Based, Semi-Gloss, Varnish Finish: 2 finish coats of a waterborne, clear, full-gloss varnish over a sealer coat and a interior wood stain. Wipe filler before applying stain.

a. Filler Coat: Paste-wood filler applied at spreading rate recommended by the manufacturer.

1) S-W: Minwax Stainable Wood Filler (Product #428).

b. Stain Coat: Interior wood stain applied at spreading rate recommended by the manufacturer.

1) S-W: Minax Performance Series Tintable Wood Stain 250 VOC.

c. Sealer Coat: Clear sanding sealer applied at spreading rate recommended by the manufacturer.

1) S-W: Minwax Water Based Helmsman Spar Urethane.

d. First and Second Finish Coats: Waterborne finish applied at spreading rate recommended by the manufacturer.

1) S-W: Minwax Water Based Helmsman Spar Urethane.

G. Natural-Finish Woodwork: Provide the following natural finishes over new, interior woodwork:

1. Alkyd-Based, Satin-Varnish Finish: 2 finish coats of an alkyd-based, clear-satin varnish over a sanding sealer. Provide wood filler on open-grain wood before applying first varnish coat.

a. Filler Coat: Paste-wood filler applied at spreading rate recommended by the manufacturer.

1) S-W: Minwax Stainable Wood Filler (Product #428).

b. Sealer Coat: Clear sanding sealer applied at spreading rate recommended by the manufacturer.

1) S-W: Minwax Water Based Helmsman Spar Urethane.

c. First and Second Finish Coats: Alkyd-based or polyurethane varnish, as recommended by the manufacturer, applied at spreading rate recommended by the manufacturer.

1) S-W: Minwax Water Based Helmsman Spar Urethane.

H. Natural-Finish Woodwork: Provide the following natural finishes over existing, interior woodwork:

1. Water Based-Varnish Finish: 2 finish coats of water borne, clear-semi gloss varnish. Provide wood filler on open-grain wood before applying first varnish coat.

a. Filler Coat: Paste-wood filler applied at spreading rate recommended by the manufacturer.

1) S-W: Minwax Stainable Wood Filler (Product #428).

b. First and Second Finish Coats: water borne polyurethane varnish, as recommended by the manufacturer, applied at spreading rate recommended by the manufacturer.

1) S-W: Minwax Water Based Helmsman Spar Urethane.

I. Stained Laboratory Grade Woodwork: Provide the following stained finishes over interior wood laboratory woodwork – see plans for locations:

1. Conversion varnish: 2-finish coats over sealed coat over stain finish.

a. Stain Coat: Alkyd-based, interior wood stain applied at spreading rate recommended by the manufacturer.

1) S-W: Minax Performance Series Tintable Wood Stain 250 VOC.

b. Sealer Coat: Clear vinyl sealer applied at spreading rate recommended by the manufacturer.

1) Trinity Coatings Co.: Trin-Kote LS-138 - Vinyl Sealer.
2) Gemini Coatings Co.: 183-7459 Vinyl Sealer.

c. First and Second Finish Coats: Clear water white conversion varnish recommended by the manufacturer, applied at spreading rate recommended by the manufacturer.

1) Trinity Coatings Co.: TV - 3250 Y Series.
2) Gemini Coatings Co.: 109-8334 Satin Pre Cat Lacquer.

J. Ferrous Metal: Provide the following finish systems over ferrous metal:

1. Eggshell, Acrylic-Enamel Finish: 2 finish coats over a primer.

a. Primer: Quick-drying, rust-inhibitive, alkyd-based or epoxy-metal primer, as recommended by the manufacturer for this substrate, applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 1.5 mils (0.038 mm).

1) S-W: Pro Industrial ProCryl Primer B66 Series.

b. First and Second Coats: Eggshell, acrylic-latex, interior enamel applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 2.8 mils (0.071 mm).

1) S-W: Pro Industrial DMT Acrylic Eg-Shel B66-661.

2. Semi-Gloss, Acrylic-Enamel Finish: 2 finish coats over a primer.

a. Primer: Quick-drying, rust-inhibitive, alkyd-based or epoxy-metal primer, as recommended by the manufacturer for this substrate, applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 1.5 mils (0.038 mm).

1) S-W: Pro Industrial ProCryl Primer B66 Series.

b. First and Second Coats: Semi-gloss, acrylic-latex, interior enamel applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 2.5 mils (0.064 mm).

1) S-W: Pro Industrial DTM Acrylic Semi-Gloss B66-1150.

K. Zinc-Coated Metal: Provide the following finish systems over zinc-coated metal:

1. Flat Acrylic Finish: 2 finish coats over a primer.

a. Primer: Galvanized metal primer applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 1.2 mils (0.031 mm).

1) S-W: Pro Industrial ProCryl Primer B66 Series.

b. First and Second Coats: Flat, acrylic-latex, interior paint applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 2.5 mils (0.064 mm).

1) S-W: DTM Primer Finish B66W1.

2. Eggshell, Acrylic-Enamel Finish: 2 finish coats over a primer.

a. Primer: Galvanized metal primer applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 1.2 mils (0.031 mm).

1) S-W: Pro Industrial ProCryl Primer B66 Series.

b. First and Second Coats: Eggshell, acrylic-latex, interior enamel applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 2.8 mils (0.071 mm).

1) S-W: Pro Industrial DMT Acrylic Eg-Shel B66-661.

3. Semi-Gloss, Acrylic-Enamel Finish: 2 coats over a primer.

a. Primer: Galvanized metal primer applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 1.2 mils (0.031 mm).

1) S-W: Pro Industrial ProCryl Primer B66 Series.

b. First and Second Coats: semi-gloss, acrylic-latex, interior enamel applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 2.5 mils (0.064 mm).

1) S-W: Pro Classic Semi-Gloss B31W51 or Pro Industrial DTM Acrylic Semi Gloss B66-1150.

L. Interior Acoustic Ceilings: Provide the following system over acoustical ceilings.

1. Flat acoustical finish: Two finish coats.

a. First and Second coats: Latex based, applied at a spreading rate recommended by the manufacturer

1) S-W: Pro-Mar 400 Interior Flat.

END OF SECTION 099000

SECTION 102113 - TOILET COMPARTMENTS 05/12/15

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 0 & 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes, but not limited to, stock, manufactured toilet compartments.
B. Types of toilet compartments include:

1. Solid plastic, homogenous color.

C. Styles of toilet compartments include:

1. Floor-anchored, overhead-braced.

D. Styles of screens include:

1. Floor-anchored.
2. Floor-to-ceiling post.
3. Wall-hung.

E. Related sections: The following sections contain requirements that relate to this sections:

1. Division 9 Section " Gypsum Board Assemblies" for metal framing backing for installation.

1.3 SUBMITTALS

A. General: Submit the following in accordance with Conditions of Contract and Division 1 Specification Sections.

B. Product data for materials, fabrication, and installation including catalog cuts of anchors, hardware, fastenings, and accessories.

C. Shop drawings for fabrication and erection of toilet compartment assemblies not fully described by product drawings, templates, and instructions for installation of anchorage devices built into other work.

D. Samples of full range of colors for each type of unit required. Submit 6-inch-square samples of each color and finish on same substrate to be used in work, for color verification after selections have been made.

E. Project Closeout Requirement:

1. Cleaning and maintenance data.

1.4 QUALITY ASSURANCE

A. Field Measurements: Take field measurements prior to preparation of shop drawings and fabrication, where possible, to ensure proper fitting of work. However, allow for adjustments where taking of field measurements before fabrication might delay work.

B. Coordination: Furnish inserts and anchorages which must be built into other work for installation of toilet compartments and related items. Coordinate delivery with other work to avoid delay.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products which may be incorporated in the Work include, but are not limited to, the following:

1. Solid Plastic – Homogenous color:

   a. Scranton Products.
   b. Hadrian®.
   c. Accurate Partition Corp.
   d. Metpar Corporation (Sanymetal).

2.2 MATERIALS

A. General: Provide materials which have been selected for surface flatness and smoothness. Exposed surfaces which exhibit pitting, seam marks, roller marks, stains, discolorations, telegraphing of core material, or other imperfections on finished units are not acceptable.

B. Solid Plastic: High density, solid polymer resin with homogenous color throughout. Provide material not less than 1 inch thick with seamless construction with edges eased.

C. Concealed Anchorage Reinforcement: Minimum 0.108 inch (12 gage), galvanized steel sheet.

D. Concealed Tapping Reinforcement: Minimum 0.0785 inch (14 gage), galvanized steel sheet.

E. Pilaster Shoes and Caps: ASTM A 167, Type 302/304 stainless steel, not less than 3 inches high, 0.0396 inch thick (20 gage), finished to match hardware.

F. Stirrup Brackets: Manufacturer's continuous design for attaching panels to walls and pilasters, either chromium-plated nonferrous cast alloy ("Zamac") or anodized aluminum.

G. Hardware and Accessories: Manufacturer's standard design, heavy duty operating hardware and accessories of chromium-plated, nonferrous cast alloy ("Zamac").

H. Overhead Bracing: Continuous extruded aluminum, antigrip profile, with clear anodized finish.

I. Anchorages and Fasteners: Manufacturer's standard exposed fasteners of stainless steel, finished to match hardware, with theft-resistant-type heads and nuts. For concealed anchors, use hot-dip galvanized, cadmium-plated, stainless steel or other rust-resistant protective-coated steel.

2.3 FABRICATION

A. General: Furnish standard doors, panels, screens, and pilasters fabricated for compartment

system. Furnish units with cutouts, drilled holes, and internal reinforcement to receive partition-mounted hardware, accessories, and grab bars, as indicated.

B. Door Dimensions: Unless otherwise indicated, furnish 24-inch-wide in-swinging doors for non-disabled toilet stalls.

1. Accessible person stall doors clearances and latches:

a) Accessible toilet stalls shall have slide bolt door latch, U-shape or wire pulls both sides of the door and self-closing hinges. Door hardware shall be mounted at 30” to 44” above finished floor. Doors at front entry stalls shall have 32” minimum clear width when the door is open 90°. Doors at side entry shall have 34” minimum clear width when the door is open 90°.

C. Overhead-Braced Compartments: Furnish galvanized steel supports and leveling bolts at pilasters as recommended by manufacturer to suit floor conditions. Make provisions for setting and securing continuous, extruded, aluminum, antigrip, overhead bracing at top of each pilaster. Provide shoe at each pilaster to conceal supports and leveling mechanism.

D. Floor-Supported Compartments: Furnish galvanized steel anchorage devices complete with threaded rods, lock washers, and leveling adjustment nuts at pilasters to permit structural connection at floor. Provide shoe at each pilaster to conceal anchorage.

E. Floor-and-Ceiling Anchored Compartments: Furnish galvanized steel anchorage devices complete with floor and ceiling closures.

F. Wall-Supported Compartments: Fabricate divider panels of two steel sheets with internal reinforcing to form unit which is "V" shaped in plan, approximately 6 inches wide at wall and tapered to approximately 1 inch at pilaster. Furnish complete with anchorages and supporting framework for installation in other work. Provide anchorage system with mechanical adjustment for leveling panels.

G. Wall-Hung Screens: Furnish panel units in sizes indicated, of same construction and finish as partition system panels.

H. Floor-Supported Screens: Furnish pilasters and panels not less than 1 inch thick and of same construction and finish as toilet compartments. Furnish stainless steel anchorage devices complete with threaded rods, lock washers, and leveling adjustment nuts at pilasters to permit structural connection to floor. Furnish shoe at pilaster to conceal anchorage.

I. Hardware: Furnish hardware for each compartment to comply with ANSI A117.1 for disabled person accessibility and as follows:

1. Hinges: Continuous hinge to hold door open at any angle up to 90 degrees. Provide gravity type, spring-action cam type, or concealed torsion rod type to suit manufacturer's standards – self-closing door. The continuous stainless steel hinge is surface mounted and fastened with stainless steel torx head screws. Each hinge has removable covers that are applied after mounting and set with a setscrew.
2. Latch and Keeper: Manufacturer's standard surface-mounted slide bolt dock latch unit, designed for accessibility, not requiring grasping, pinching or twisting with combination rubber-faced door strike and keeper.
3. Coat Hook: Manufacturer's standard unit, combination hook and rubber-tipped bumper, sized to prevent door hitting mounted accessories. Mount at 48 inches above floor in disabled access toilet compartments on wall--do not mount on door. If door swings out, add additional hook on partition inside accessible stall. Mount on door at 48 inches above floor in non-disabled toilet compartments.

4. Door Pull: Manufacturer's standard unit for out-swinging doors, mount 38” AFF.
5. Accessible Stall Door Pulls: On both faces of compartments, provide U-shaped pull devices. Mount pulls directly beneath the latch. Comply with CBC Section 11B-404.2.7.

2.4 FINISH

A. Colors: One of manufacturer's colors from full range of available colors in each toilet room, as indicated or, if not indicated, as selected by the Architect.

PART 3 - EXECUTION

3.1 INSTALLATION

A. General: Comply with manufacturer's recommended procedures and installation sequence. Install compartment units rigid, straight, plumb, and level. Provide clearances of not more than 1/2 inch between pilasters and panels, and not more than 1 inch between panels and walls. Secure panels to walls with continuous brackets attached near top and bottom of panel. Secure panels to pilasters with continuous brackets located to align with brackets at wall. Secure panels in position with manufacturer's recommended anchoring devices.

B. Overhead-Braced Compartments: Secure pilasters to floor and level, plumb, and tighten installation with devices furnished. Secure overhead brace to each pilaster with not less than two fasteners. Hang doors and adjust so that tops of doors are parallel with overhead brace when doors are in closed position.

C. Floor-Supported Compartments: Set pilaster units with anchorages having not less than 2 inches penetration into structural floor, unless otherwise recommended by partition manufacturer. Level, plumb, and tighten installation with devices furnished. Hang doors and adjust so that tops of doors are level with tops of pilasters when doors are in closed position.

D. Ceiling-Hung Compartments: Secure pilasters to supporting structure and level, plumb, and tighten installation with devices furnished. Hang doors and adjust so that bottoms of doors are level with bottom of pilasters when doors are in closed position.

E. Wall-Supported Compartments: Secure divider panels to built-in anchorage devices using concealed fasteners. Level, plumb, and tighten installation with devices furnished. Hang doors and adjust so that bottoms of doors are level with bottoms of pilasters when doors are in closed position.

F. Screens: Attach with anchoring devices as recommended by manufacturer to suit supporting structure. Set units to provide support and to resist lateral impact.

G. Hinges: The continuous hinge is surface mounted and fastened with 3/4" torx head screws. Each hinge has removable covers that are applied after mounting and set with a setscrew.

3.2 ADJUST AND CLEAN

A. Hardware Adjustment: Adjust and lubricate hardware for proper operation. Set hinges on in-swinging doors to hold open approximately 30 degrees from closed position when unlatched. Set hinges on out-swinging doors (and entrance swing doors) to return to fully closed position.

B. Clean exposed surfaces of partition systems using materials and methods recommended by manufacturer, and provide protection as necessary to prevent damage during remainder of construction period.

END OF SECTION 102113

SECTION 220500 - COMMON WORK RESULTS FOR PLUMBING

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

A. Submittals:

1. Reference Division 1 “Submittals”
2. Product Data: For each type of product indicated.
3. Hangers and Supports:

a. Shop Drawings: Signed and sealed by a qualified professional engineer.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Hangers and Supports for Plumbing Piping Equipment:

1. Structural Performance: Hangers and supports shall withstand the effects of gravity loads and stresses within limits and under conditions indicated according to ASCE/SEI 7.

a. Design supports for multiple pipes capable of supporting combined weight of supported systems, and system contents.
b. Design equipment supports capable of supporting combined operating weight of supported equipment and connected systems and components.
c. Design seismic-restraint hangers and supports for piping and equipment and obtain approval from authorities having jurisdiction.

2.2 SLEEVES AND SLEEVE SEALS

A. Galvanized-Steel-Pipe Sleeves: ASTM A 53/A 53M, Type E, Grade B, Schedule 40, zinc coated, with plain ends.

B. PVC-Pipe Sleeves: ASTM D 1785, Schedule 40.

C. Galvanized-Steel-Sheet Sleeves: 0.0239-inch (0.6-mm) minimum thickness; round tube closed with welded longitudinal joint.

D. Modular sealing-element unit, designed for field assembly, for filling annular space between piping and sleeve.

1. Sealing Elements: EPDM-rubber or NBR interlocking links shaped to fit surface of pipe. Include type and number required for pipe material and size of pipe.
2. Pressure Plates: Stainless steel.
3. Connecting Bolts and Nuts: Stainless steel of length required to secure pressure plates to sealing elements.

2.3 GROUT

A. Standard: ASTM C 1107/C 1107M, Grade B, post-hardening and volume-adjusting, dry, hydraulic-cement grout.

1. Characteristics: Nonshrink; recommended for interior and exterior applications.
2. Design Mix: 5000-psi (34.5-MPa), 28-day compressive strength.
3. Packaging: Premixed and factory packaged.

2.4 ESCUTCHEONS AND FLOOR PLATES

A. One-Piece, Deep-Pattern Type: Deep-drawn, box-shaped brass with chrome-plated finish and spring-clip fasteners.

B. One-Piece, Stamped-Steel Type: With chrome-plated finish and spring-clip fasteners.

C. One-Piece Floor Plates: Cast-iron flange with holes for fasteners.

2.5 PRESSURE GAGES AND TEST PLUGS

A. Direct-Mounted, Metal-Case, Dial-Type Pressure Gages:

1. Standard: ASME B40.100.
2. Case: Sealed Solid-front, pressure relief, cast aluminum or drawn steel 4-1/2-inch (114-mm) nominal diameter.
3. Movement: Mechanical, with link to pressure element and connection to pointer.
4. Dial: Nonreflective aluminum with permanently etched scale markings graduated in psi (kPa).
5. Pointer: Dark-colored metal.
6. Window: Plastic.
7. Ring: Metal.
8. Accuracy: Grade B, plus or minus 2 percent of middle half of scale range.

B. Test Plug: Corrosion-resistant brass or stainless-steel body with two self-sealing rubber core inserts and gasketed and threaded cap, with extended stem for units to be installed in insulated piping. Minimum pressure and temperature rating 500 psig at 200 deg F (3450 kPa at 93 deg C).

2.6 HANGERS AND SUPPORTS FOR PLUMBING PIPING EQUPMENT

A. Carbon-Steel Pipe Hangers and Supports:

1. Description: MSS SP-58, Types 1 through 58, factory-fabricated components.
2. Galvanized Metallic Coatings: Pregalvanized or hot dipped.
3. Nonmetallic Coatings: Plastic coating, jacket, or liner.
4. Padded Hangers: Hanger with fiberglass or other pipe insulation pad or cushion to support bearing surface of piping.
5. Hanger Rods: Continuous-thread rod, nuts, and washer made of carbon steel.

B. Copper Pipe Hangers:

1. Description: MSS SP-58, Types 1 through 58, copper-coated-steel, factory-fabricated components.

2. Hanger Rods: Continuous-thread rod, nuts, and washer made of copper-coated steel.

C. Fastener Systems:

1. Verify suitability of fasteners in this article for use in lightweight concrete or concrete slabs less than 4 inches (100 mm) thick.
2. Powder-Actuated Fasteners: Threaded-steel stud, for use in hardened portland cement concrete with pull-out, tension, and shear capacities appropriate for supported loads and building materials where used.
3. Mechanical-Expansion Anchors: Insert-wedge-type, stainless steel anchors, for use in hardened portland cement concrete; with pull-out, tension, and shear capacities appropriate for supported loads and building materials where used.

D. Miscellaneous Materials:

1. Structural Steel: ASTM A 36/A 36M, carbon-steel plates, shapes, and bars; black and galvanized.
2. Grout: ASTM C 1107, factory-mixed and -packaged, dry, hydraulic-cement, nonshrink and nonmetallic grout; suitable for interior and exterior applications.

   a. Properties: Nonstaining, noncorrosive, and nongaseous.
      Design Mix: 5000-psi (34.5-MPa), 28-day compressive strength.

PART 3 - EXECUTION

3.1 GENERAL PIPING INSTALLATIONS

A. Install piping free of sags and bends.

B. Install fittings for changes in direction and branch connections.

C. Sleeves:

1. Install sleeves for piping passing through penetrations in floors, partitions, roofs, and walls.
2. Install sleeves in concrete floors, concrete roof slabs, and concrete walls as new slabs and walls are constructed.

   a. Using grout, seal the space outside of sleeves in slabs and walls without sleeve-seal system.

3. Install sleeves for pipes passing through interior partitions.
4. Fire-Barrier Penetrations: Maintain indicated fire rating of walls, partitions, ceilings, and floors at pipe penetrations. Seal pipe penetrations with firestop materials. Comply with requirements for firestopping specified in Section 078413 "Penetration Firestopping."

D. Sleeve-Seal-System Installation:

1. Install sleeve-seal systems in sleeves in exterior concrete walls and slabs-on-grade at service piping entries into building.
2. Select type, size, and number of sealing elements required for piping material and size and for sleeve ID or hole size. Position piping in center of sleeve. Center piping in penetration, assemble sleeve-seal system components, and install in annular space

between piping and sleeve. Tighten bolts against pressure plates that cause sealing elements to expand and make a watertight seal.

E. Escutcheons and Floor Plates:

1. Install escutcheons for piping penetrations of walls, ceilings, and finished floors.
2. Install escutcheons with ID to closely fit around pipe, tube, and insulation of piping and with OD that completely covers opening.
3. Install floor plates for piping penetrations of equipment-room floors.
4. Install floor plates with ID to closely fit around pipe, tube, and insulation of piping and with OD that completely covers opening.

F. Install dielectric coupling and nipple fittings to connect piping materials of dissimilar metals in water piping.

3.2 HANGERS AND SUPPORTS

A. Comply with MSS SP-69 and MSS SP-89. Install building attachments within concrete or to structural steel.

B. Install hangers and supports to allow controlled thermal and seismic movement of piping systems.

C. Install powder-actuated fasteners and mechanical-expansion anchors in concrete after concrete is cured. Do not use in lightweight concrete or in slabs less than 4 inches thick.

D. Load Distribution: Install hangers and supports so piping live and dead loading and stresses from movement will not be transmitted to connected equipment.

E. Horizontal-Piping Hangers and Supports: Unless otherwise indicated and except as specified in piping system Specification Sections, install the following types:

1. Adjustable Steel Clevis Hangers (MSS Type 1): For suspension of noninsulated or insulated stationary pipes, NPS 1/2 to NPS 30 (DN 15 to DN 750).
2. Pipe Hangers (MSS Type 5): For suspension of pipes, NPS 1/2 to NPS 4 (DN 15 to DN 100), to allow off-center closure for hanger installation before pipe erection.
3. Adjustable Steel Band Hangers (MSS Type 7): For suspension of noninsulated stationary pipes, NPS 1/2 to NPS 8 (DN 15 to DN 200).
4. Adjustable Band Hangers (MSS Type 9): For suspension of noninsulated stationary pipes, NPS 1/2 to NPS 8 (DN 15 to DN 200).
5. Adjustable Swivel-Ring Band Hangers (MSS Type 10): For suspension of noninsulated stationary pipes, NPS 1/2 to NPS 2 (DN 15 to DN 50).

F. Vertical-Piping Clamps: Unless otherwise indicated and except as specified in piping system Specification Sections, install the following types:

1. Extension Pipe or Riser Clamps (MSS Type 8): For support of pipe risers, NPS 3/4 to NPS 20 (DN 20 to DN 500).
2. Carbon- or Alloy-Steel Riser Clamps (MSS Type 42): For support of pipe risers, NPS 3/4 to NPS 20 (DN 20 to DN 500), if longer ends are required for riser clamps.

3.3 GENERAL EQUIPMENT INSTALLATIONS

A. Install equipment to allow maximum possible headroom unless specific mounting heights are not indicated.

B. Install equipment level and plumb, parallel and perpendicular to other building systems and components, unless otherwise indicated.

C. Install mechanical equipment to facilitate service, maintenance, and repair or replacement of components. Connect equipment for ease of disconnecting, with minimum interference to other installations.

D. Install equipment to allow right of way for piping installed at required slope.

END OF SECTION

SECTION 220700 - PLUMBING INSULATION

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

A. Submittals:

1. Reference Division 1 “Submittals”
2. Product Data: For each type of product indicated.
3. For adhesives and sealants, documentation including printed statement of VOC content and chemical components.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Insulation Installed Indoors: Flame-spread index of 25 or less, and smoke-developed index of 50 or less according to ASTM E 84.

B. Insulation Installed Outdoors: Flame-spread index of 75 or less, and smoke-developed index of 150 or less according to ASTM E 84.

2.2 INSULATION MATERIALS

A. Foam insulation materials shall not use CFC or HCFC blowing agents in the manufacturing process.

B. Flexible Elastomeric: Closed-cell, sponge- or expanded-rubber materials. Comply with ASTM C 534, Type I for tubular materials and Type II for sheet materials.

C. Mineral-Fiber Blanket Insulation: Comply with ASTM C 553, Type II and ASTM C 1290, Type I.

D. Mineral-Fiber, Preformed Pipe Insulation: Comply with ASTM C 547, Type I, Grade A, with factory-applied ASJ.

E. Mineral-Fiber, Pipe and Tank Insulation: Complying with ASTM C 1393, Type II or Type IIIA Category 2, or with properties similar to ASTM C 612, Type IB; and having factory-applied ASJ. Nominal density is 2.5 lb/cu. ft. (40 kg/cu. m) or more. Thermal conductivity (k-value) at 100 deg F (55 deg C) is 0.29 Btu x in./h x sq. ft. x deg F (0.042 W/m x K) or less.

F. Polyolefin Insulation: Unicellular, polyethylene thermal plastic insulation. Comply with ASTM C 534 or ASTM C 1427, Type I, Grade 1 for tubular materials and Type II, Grade 1 for sheet materials.

2.3 ADHESIVES

A. Flexible Elastomeric and Polyolefin Adhesive: Comply with MIL-A-24179A, Type II, Class I.

1. For indoor applications, adhesive shall have a VOC content of 50 g/L or less.

B. Mineral-Fiber Adhesive: Comply with MIL-A-3316C, Class 2, Grade A.

1. For indoor applications, adhesive shall have a VOC content of 80 g/L or less.

C. ASJ Adhesive, and FSK Jacket Adhesive: Comply with MIL-A-3316C, Class 2, Grade A for bonding insulation jacket lap seams and joints.

1. For indoor applications, adhesive shall have a VOC content of 50 g/L or less.

2.4 MASTICS

A. Vapor-Barrier Mastic: Water based; suitable for indoor use on below ambient services.

1. For indoor applications, use mastics that have a VOC content of 50 g/L or less.
2. Water-Vapor Permeance: ASTM E 96/E 96M, Procedure B, 0.013 perm (0.009 metric perm) at 43-mil (1.09-mm) dry film thickness.
3. Service Temperature Range: Minus 20 to plus 180 deg F (Minus 29 to plus 82 deg C).
4. Solids Content: ASTM D 1644, 58 percent by volume and 70 percent by weight.
5. Color: White.

B. Breather Mastic: Water based; suitable for indoor and outdoor use on above ambient services.

1. Water-Vapor Permeance: ASTM F 1249, 1.8 perms (1.2 metric perms) at 0.0625-inch (1.6-mm) dry film thickness.
2. Service Temperature Range: Minus 20 to plus 180 deg F (Minus 29 to plus 82 deg C).
3. Solids Content: 60 percent by volume and 66 percent by weight.
4. Color: White.

2.5 SEALANTS

A. Joint Sealants:

1. Materials shall be compatible with insulation materials, jackets, and substrates.
2. Permanently flexible, elastomeric sealant.
3. Service Temperature Range: Minus 100 to plus 300 deg F (Minus 73 to plus 149 deg C).
4. Color: White or gray.
5. For indoor applications, sealants shall have a VOC content of 420 g/L or less.

B. ASJ Flashing Sealants:

1. Materials shall be compatible with insulation materials, jackets, and substrates.
2. Fire- and water-resistant, flexible, elastomeric sealant.
3. Service Temperature Range: Minus 40 to plus 250 deg F (Minus 40 to plus 121 deg C).
4. Color: White.
5. For indoor applications, sealants shall have a VOC content of 420 g/L or less.

2.6 FACTORY-APPLIED JACKETS

A. Insulation system schedules indicate factory-applied jackets on various applications. When factory-applied jackets are indicated, comply with the following:

1. ASJ: White, kraft-paper, fiberglass-reinforced scrim with aluminum-foil backing; complying with ASTM C 1136, Type I.
2. ASJ-SSL: ASJ with self-sealing, pressure-sensitive, acrylic-based adhesive covered by a removable protective strip; complying with ASTM C 1136, Type I.
3. FSK Jacket: Aluminum-foil, fiberglass-reinforced scrim with kraft-paper backing; complying with ASTM C 1136, Type II.

2.7 TAPES

A. ASJ Tape: White vapor-retarder tape matching factory-applied jacket with acrylic adhesive, complying with ASTM C 1136.

1. Width: 3 inches (75 mm).
2. Thickness: 11.5 mils (0.29 mm).
3. Adhesion: 90 ounces force/inch (1.0 N/mm) in width.
4. Elongation: 2 percent.
5. Tensile Strength: 40 lbf/inch (7.2 N/mm) in width.
6. ASJ Tape Disks and Squares: Precut disks or squares of ASJ tape.

B. FSK Tape: Foil-face, vapor-retarder tape matching factory-applied jacket with acrylic adhesive; complying with ASTM C 1136.

1. Width: 3 inches (75 mm).
2. Thickness: 6.5 mils (0.16 mm).
3. Adhesion: 90 ounces force/inch (1.0 N/mm) in width.
4. Elongation: 2 percent.
5. Tensile Strength: 40 lbf/inch (7.2 N/mm) in width.
6. FSK Tape Disks and Squares: Precut disks or squares of FSK tape.

PART 3 - EXECUTION

3.1 PIPE INSULATION INSTALLATION

A. Comply with requirements of the Midwest Insulation Contractors Association's "National Commercial & Industrial Insulation Standards" for insulation installation on pipes and equipment.

B. Insulation Installation at Interior Wall and Partition Penetrations (That Are Not Fire Rated): Install insulation continuously through walls and partitions.

C. Insulation Installation at Fire-Rated Wall, Partition, and Floor Penetrations: Install insulation continuously through penetrations. Seal penetrations. Comply with requirements in Section 078413 "Penetration Firestopping."

D. Flexible Elastomeric Insulation Installation:

1. Seal longitudinal seams and end joints with adhesive to eliminate openings in insulation that allow passage of air to surface being insulated.
2. Insulation Installation on Pipe Fittings and Elbows: Install mitered sections of pipe insulation. Secure insulation materials and seal seams with adhesive to eliminate openings in insulation that allow passage of air to surface being insulated.

E. Mineral-Fiber Insulation Installation:

1. Insulation Installation on Straight Pipes and Tubes: Where vapor barriers are indicated, seal longitudinal seams, end joints, and protrusions with vapor-barrier mastic and joint sealant.
2. For insulation with factory-applied jackets on above ambient surfaces, secure laps with outward clinched staples at 6 inches (150 mm) o.c.
3. For insulation with factory-applied jackets on below ambient surfaces, do not staple longitudinal tabs but secure tabs with additional adhesive as recommended by insulation material manufacturer and seal with vapor-barrier mastic and flashing sealant.

F. Polyolefin Insulation Installation:

1. Seal split-tube longitudinal seams and end joints with adhesive to eliminate openings in insulation that allow passage of air to surface being insulated.
2. Insulation Installation on Pipe Fittings and Elbows: Install mitered sections of polyolefin pipe insulation. Secure insulation materials and seal seams with adhesive to eliminate openings in insulation that allow passage of air to surface being insulated.

G. Interior Piping System Applications: Insulate the following piping systems:

1. Domestic hot water.
2. Recirculated domestic hot water.
3. Solar hot water
4. Recirculated solar hot water.
5. Roof drain bodies and horizontal rainwater leaders of storm water piping.
6. Exposed water supplies and sanitary drains of fixtures for people with disabilities.

H. Do not apply insulation to the following systems, materials, and equipment:

1. Flexible connectors.
2. Sanitary drainage and vent piping.
3. Drainage piping located in crawlspaces unless otherwise indicated.
4. Chrome-plated pipes and fittings, except for plumbing fixtures for people with disabilities.
5. Piping specialties, including air chambers, unions, strainers, check valves, plug valves, and flow regulators.

3.2 EQUIPMENT INSULATION SCHEDULE

A. Domestic water and domestic hot-water hydropneumatic tank insulation shall be[one of] the following:

1. Flexible Elastomeric: 1 inch (25 mm) thick.
2. Mineral-Fiber Blanket: 1 inch (25 mm) thick and 2-lb/cu. ft. (32-kg/cu. m) nominal density.
3. Mineral-Fiber Pipe and Tank: 1 inch (25 mm) thick.
4. Polyolefin: 1 inch (25 mm) thick.

B. Domestic hot-water storage tank insulation shall be the following:

1. Mineral-Fiber Pipe and Tank: 4 inches (100 mm)] thick.

C. Domestic water storage tank insulation shall be one of the following:

1. Flexible Elastomeric: 1 inch (25 mm) thick.
2. Mineral-Fiber Pipe and Tank: 1 inch (25 mm) thick.
3. Polyolefin: 1 inch (25 mm) thick.

3.3 INDOOR PIPING INSULATION SCHEDULE

A. Unless otherwise indicated, do not install insulation on the following:

1. Drainage piping located in crawlspaces.
2. Underground piping.
3. Chrome-plated pipes and fittings unless there is a potential for personnel injury.

B. Domestic Cold Water in unheated areas of the building and where exposed outside of the building:

1. NPS 1 (DN 25) and Smaller: Insulation shall be one of the following:

a. Flexible Elastomeric: 1 inch (25 mm) thick.
b. Mineral-Fiber, Preformed Pipe Insulation, Type I: 1 inch (25 mm) thick.
c. Polyolefin: 1 inch (25 mm) thick.

2. NPS 1-1/4 (DN 32) and Larger: Insulation shall be one of the following:

a. Flexible Elastomeric: 1 inch (25 mm)] thick.
b. Mineral-Fiber, Preformed Pipe Insulation, Type I: 1 inch (25 mm)] thick.
c. Polyolefin: 1 inch (25 mm)] thick.

C. Domestic Hot, Recirculated Hot Water, Solar Hot Water and Recirculated Solar Water:

1. NPS 1-1/4 (DN 32) and Smaller: Insulation shall be one of the following:

a. Flexible Elastomeric: 1 inch (25 mm)] thick.
b. Mineral-Fiber, Preformed Pipe Insulation, Type I: 1 inch (25 mm) thick.
c. Polyolefin: 1 inch (25 mm) thick.

2. NPS 1-1/2 (DN 40) and Larger: Insulation shall be one of the following:

a. Flexible Elastomeric: 1 inch (25 mm)] thick.
b. Mineral-Fiber, Preformed Pipe Insulation, Type I: 1 inch (25 mm) thick.
c. Polyolefin: 1 inch (25 mm)] thick.

D. Roof Drain and Overflow Drain Bodies:

1. All Pipe Sizes: Insulation shall be one of the following:

a. Flexible Elastomeric: 1 inch (25 mm) thick.
b. Mineral-Fiber, Preformed Pipe Insulation, Type I: 1 inch (25 mm) thick.
c. Polyolefin: 1 inch (25 mm) thick.

E. Exposed Sanitary Drains, Domestic Water, Domestic Hot Water, and Stops for Plumbing Fixtures for People with Disabilities:

1. All Pipe Sizes: Insulation shall be one of the following:

a. Truebro “Lav-Guard”.
b. Plumberex “Pro-Xtreme”

END OF SECTION

SECTION 221316 - SANITARY WASTE AND VENT PIPING

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

A. Submittals:

1. Reference Division 1 “Submittals”
2. Product Data: For each type of product indicated.
3. For solvent cements and adhesive primers, documentation including printed statement of VOC content.
4. Seismic Qualification Certificates: For waste and vent piping, accessories, and components, from manufacturer.

1.2 FIELD CONDITIONS

A. Do not interrupt service to facilities occupied by the Owner or others unless permitted under the following conditions and then only after arranging to provide temporary service according to requirements indicated:

1. Notify Architect in advance of proposed interruption of sanitary waste service and do not proceed without written permission.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Components and installation shall be capable of withstanding the following minimum working pressure unless otherwise indicated:

1. Soil, Waste, and Vent Piping: 10-foot head of water .

B. Seismic Performance: Soil, waste, and vent piping and support and installation shall withstand the effects of earthquake motions determined according to ASCE/SEI 7.

C. Piping materials shall bear label, stamp, or other markings of CISPI and the NSF international listed trademark.

2.2 PIPES AND FITTINGS

A. Waste piping within the building: Hubless Cast-Iron Soil Pipe: CISPI 301, ASTM A 888 or ASTM A 74.

1. Manufacturers:
2. Basis-of-Design Product: AB&I Foundry or a comparable product of one of the following:

a. Charlotte Pipe and Foundry
b. Tyler Pipe Company

B. Waste piping within the building: Fittings: CISPI 301, ASTM C 1277 shielded couplings.

1. Manufacturers:
2. Basis-of-Design Product: Anaco or a comparable product of one of the following:

a. Tyler Pipe Company
b. Mission Rubber Company

PART 3 - EXECUTION

3.1 PIPING INSTALLATION

A. Comply with requirements in Section 220513 "Common Work Results for Plumbing" for basic piping installation requirements.

B. Install cast-iron soil piping according to CISPI's "Cast Iron Soil Pipe and Fittings Handbook," Chapter IV, "Installation of Cast Iron Soil Pipe and Fittings."

C. Install wall penetration system at each pipe penetration through foundation wall. Make installation watertight. Comply with requirements in Section 220513 "Common Work Results for Plumbing" for wall penetration systems.

1. Sleeves are not required for cast-iron soil piping passing through concrete slabs-on-grade if slab is without membrane waterproofing.

D. Make changes in direction for soil and waste drainage and vent piping using appropriate branches, bends, and long-sweep bends. Sanitary tees and short-sweep 1/4 bends may be used on vertical stacks if change in direction of flow is from horizontal to vertical. Use long-turn, double Y-branch and 1/8-bend fittings if two fixtures are installed back to back or side by side with common drain pipe. Straight tees, elbows, and crosses may be used on vent lines. Do not change direction of flow more than 90 degrees. Use proper size of standard increasers and reducers if pipes of different sizes are connected. Reducing size of drainage piping in direction of flow is prohibited.

E. Lay buried building drainage piping beginning at low point of each system. Install true to grades and alignment indicated, with unbroken continuity of invert. Place hub ends of piping upstream. Install required gaskets according to manufacturer's written instructions for use of lubricants, cements, and other installation requirements. Maintain swab in piping and pull past each joint as completed.

F. Install soil and waste drainage and vent piping at the following minimum slopes, unless otherwise indicated:

1. Building Sanitary Drain: 2 percent downward in direction of flow.
2. Horizontal Sanitary Drainage Piping: 2 percent downward in direction of flow.
3. Vent Piping: 1 percent down toward vertical fixture vent or toward vent stack.

G. Do not enclose, cover, or put piping into operation until it is inspected and approved by authorities having jurisdiction.

H. Comply with requirements in Section 220513 "Common Work Results for Plumbing" for basic piping joint construction.

I. Comply with requirements in Section 220513 "Common Work Results for Plumbing" for pipe hanger and support devices.

3.2 PIPE SCHEDULE

A. Aboveground Waste Applications: Hubless, cast-iron soil pipe and fittings.

END OF SECTION

SECTION 221319 - SANITARY WASTE PIPING SPECIALTIES

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

A. Submittals:

1. Reference Division 1 “Submittals”
2. Product Data: For each type of product indicated.

a. Include rated capacities, operating characteristics, and accessories for grease interceptors.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Drainage piping specialties shall bear label, stamp, or other markings of specified testing agency.

2.2 MANUFACTURED UNITS

A. Horizontal, Cast-Iron Backwater Valves: ASME A112.14.1, gray-iron body with bronze seat.

1. Extension: ASTM A 74, Service class; full-size, cast-iron, soil-pipe extension to field-installed cleanout at floor; replaces backwater valve cover.

B. PVC Backwater Valves: Horizontal type; with PVC body, PVC removable cover, and PVC swing check valve.

C. Cleanouts:

1. Application: Cleanout to Grade, Floor cleanout, Wall cleanout, For installation in exposed piping
2. Body or Ferrule: As indicated on drawings.
3. Clamping Device: As indicated on drawings.
4. Outlet Connection: As indicated on drawings.
5. Closure: As indicated on drawings.
6. Adjustable Housing Material: As indicated on drawings.
7. Frame and Cover Material and Finish: Nickel-bronze, copper alloy
8. Frame and Cover Shape: As indicated on drawings.
9. Top-Loading Classification: As indicated on drawings.

D. Floor Drains:

1. Manufacturers:
2. Basis-of-Design Product: Product indicated on Drawings or a comparable product of one of the following:

a. Smith, Jay R. Mfg. Co.; Division of Smith Industries, Inc.
b. Tyler Pipe; Wade Div.
c. Zurn Plumbing Products Group; Specification Drainage Operation.

3. Standard: ASME A112.6.3
4. Pattern: As indicated on drawings.
5. Body Material: As indicated on drawings.
6. Seepage Flange: As indicated on drawings.
7. Clamping Device: As indicated on drawings.
8. Outlet: As indicated on drawings.
9. Exposed Surfaces and Interior Lining: As indicated on drawings.
10. Sediment Bucket: As indicated on drawings.
11. Top or Strainer Material: As indicated on drawings.
12. Top of Body and Strainer Finish: Nickel bronze
13. Top Shape: As indicated on drawings.
14. Dimensions of Top or Strainer: As indicated on drawings.Retain "Top-Loading Classification" Subparagraph below if applicable.
15. Top-Loading Classification: As indicated on drawings..
16. Funnel: As indicated on drawings.
17. Inlet Fitting: As indicated on drawings.
18. Trap Material: As indicated on drawings..
19. Trap Pattern: As indicated on drawings.
20. Trap Features: As indicated on drawings.

E. Roof Flashing Assemblies:

1. Manufactured assembly made of 6.0-lb/sq. ft. (30-kg/sq. m), 0.0938-inch- (2.4-mm-) thick, lead flashing collar and skirt extending at least 10 inches (250 mm) from pipe, with galvanized-steel boot reinforcement and counterflashing fitting.

a. Open-Top Vent Cap: Without cap.
b. Low-Silhouette Vent Cap: With vandal-proof vent cap.
c. Extended Vent Cap: With field-installed, vandal-proof vent cap.

F. Air-Gap Fittings: ASME A112.1.2, chrome-plated brass cover.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install cleanouts at grade and extend to where building sanitary drains connect to building sanitary sewers.

B. Install floor drains at low points of surface areas to be drained. Set grates of drains flush with finished floor unless otherwise indicated.

1. Install floor-drain flashing collar or flange so no leakage occurs between drain and adjoining flooring. Maintain integrity of waterproof membranes where penetrated.
2. Install individual traps for floor drains connected to sanitary building drain, unless otherwise indicated.

C. Install roof flashing assemblies on sanitary stack vents and vent stacks that extend through roof.

D. Install air-gap fittings on draining-type backflow preventers and on indirect-waste piping discharge into sanitary drainage system.

E. Engage a factory-authorized service representative to train maintenance personnel to adjust, operate, and maintain grease removal devices.

END OF SECTION

SECTION 230500 - COMMON WORK RESULTS FOR HVAC

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

A. Submittals:

1. Reference Division 1 “Submittals”
2. Product Data: For each type of product indicated.

PART 2 - PRODUCTS

2.1 PRESSURE GAGES AND TEST PLUGS

A. Test Plug: Corrosion-resistant brass or stainless-steel body with two self-sealing rubber core inserts and gasketed and threaded cap, with extended stem for units to be installed in insulated piping. Minimum pressure and temperature rating of 500 psig at 200 deg F (3450 kPa at 93 deg C).

2.2 HANGERS AND SUPPORTS FOR HVAC

A. Copper Pipe Hangers:

1. Description: MSS SP-58, Types 1 through 58, copper-coated-steel, factory-fabricated components.
2. Hanger Rods: Continuous-thread rod, nuts, and washer made of copper-coated steel.

B. Fastener Systems:

1. Verify suitability of fasteners in this article for use in lightweight concrete or concrete slabs less than 4 inches (100 mm) thick.
2. Powder-Actuated Fasteners: Threaded-steel stud, for use in hardened portland cement concrete with pull-out, tension, and shear capacities appropriate for supported loads and building materials where used.
3. Mechanical-Expansion Anchors: Insert-wedge-type, stainless steel anchors, for use in hardened portland cement concrete; with pull-out, tension, and shear capacities appropriate for supported loads and building materials where used.

C. Miscellaneous Materials:

1. Structural Steel: ASTM A 36/A 36M, carbon-steel plates, shapes, and bars; black and galvanized.
2. Grout: ASTM C 1107, factory-mixed and -packaged, dry, hydraulic-cement, nonshrink and nonmetallic grout; suitable for interior and exterior applications.

   a. Properties: Nonstaining, noncorrosive, and nongaseous.
   b. Design Mix: 5000-psi (34.5-MPa), 28-day compressive strength.

PART 3 - EXECUTION

3.1 GENERAL PIPING INSTALLATIONS

A. Install piping free of sags and bends.

B. Install fittings for changes in direction and branch connections.

C. Sleeves:

1. Install sleeves for piping passing through penetrations in floors, partitions, roofs, and walls.
2. Install sleeves in concrete floors, concrete roof slabs, and concrete walls as new slabs and walls are constructed.

   a. Using grout, seal the space outside of sleeves in slabs and walls without sleeve-seal system.

3. Install stack-sleeve fittings in new slabs as slabs are constructed.
4. Exterior Wall, Pipe Penetrations: Mechanical sleeve seals installed in steel or cast-iron pipes for wall sleeves.
5. Fire-Barrier Penetrations: Maintain indicated fire rating of walls, partitions, ceilings, and floors at pipe penetrations. Seal pipe penetrations with firestop materials. Comply with requirements for firestopping specified in Section 078446 "Penetration Firestopping."

D. Sleeve-Seal-System Installation:

1. Install sleeve-seal systems in sleeves in exterior concrete walls and slabs-on-grade at service piping entries into building.
2. Select type, size, and number of sealing elements required for piping material and size and for sleeve ID or hole size. Position piping in center of sleeve. Center piping in penetration, assemble sleeve-seal system components, and install in annular space between piping and sleeve. Tighten bolts against pressure plates that cause sealing elements to expand and make a watertight seal.

E. Install unions at final connection to each piece of equipment.

F. Install dielectric unions and flanges to connect piping materials of dissimilar metals in gas piping.

G. Install dielectric coupling and nipple fittings to connect piping materials of dissimilar metals in water piping.

3.2 HANGERS AND SUPPORTS

A. Comply with MSS SP-69 and MSS SP-89. Install building attachments within concrete or to structural steel.

B. Install hangers and supports to allow controlled thermal and seismic movement of piping systems.

C. Install powder-actuated fasteners and mechanical-expansion anchors in concrete after concrete is cured. Do not use in lightweight concrete or in slabs less than 4 inches (100 mm) thick.

D. Load Distribution: Install hangers and supports so piping live and dead loading and stresses from movement will not be transmitted to connected equipment.

E. Horizontal-Piping Hangers and Supports: Unless otherwise indicated and except as specified in piping system Specification Sections, install the following types:

1. Adjustable Steel Clevis Hangers (MSS Type 1): For suspension of noninsulated or insulated stationary pipes, NPS 1/2 to NPS 30 (DN 15 to DN 750).
2. Pipe Hangers (MSS Type 5): For suspension of pipes, NPS 1/2 to NPS 4 (DN 15 to DN 100), to allow off-center closure for hanger installation before pipe erection.
3. Adjustable Steel Band Hangers (MSS Type 7): For suspension of noninsulated stationary pipes, NPS 1/2 to NPS 8 (DN 15 to DN 200).
4. Adjustable Band Hangers (MSS Type 9): For suspension of noninsulated stationary pipes, NPS 1/2 to NPS 8 (DN 15 to DN 200).
5. Adjustable Swivel-Ring Band Hangers (MSS Type 10): For suspension of noninsulated stationary pipes, NPS 1/2 to NPS 2 (DN 15 to DN 50).

F. Vertical-Piping Clamps: Unless otherwise indicated and except as specified in piping system Specification Sections, install the following types:

1. Extension Pipe or Riser Clamps (MSS Type 8): For support of pipe risers, NPS 3/4 to NPS 20 (DN 20 to DN 500).
2. Carbon- or Alloy-Steel Riser Clamps (MSS Type 42): For support of pipe risers, NPS 3/4 to NPS 20 (DN 20 to DN 500), if longer ends are required for riser clamps.

3.3 GENERAL EQUIPMENT INSTALLATIONS

A. Install equipment to allow maximum possible headroom unless specific mounting heights are not indicated.

B. Install equipment level and plumb, parallel and perpendicular to other building systems and components, unless otherwise indicated.

C. Install mechanical equipment to facilitate service, maintenance, and repair or replacement of components. Connect equipment for ease of disconnecting, with minimum interference to other installations. Extend grease fittings to accessible locations.

D. Install equipment to allow right of way for piping installed at required slope.

END OF SECTION

SECTION 230523 - GENERAL-DUTY VALVES FOR HVAC PIPING

PART 1 - GENERAL

1.1 Submittals:

A. Reference Division 1 “Submittals”

B. Product Data: For each type of valve indicated.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Source Limitations for Valves: Obtain each type of valve from single source from single manufacturer.

B. Valve Pressure and Temperature Ratings: Not less than indicated and as required for system pressures and temperatures.

C. ASME Compliance: ASME B16.10 and ASME B16.34 for ferrous valve dimensions and design criteria.

2.2 GENERAL-DUTY VALVES

A. Valve Sizes: Same as upstream piping unless otherwise indicated.

B. Valves in Insulated Piping: With 2-inch (50-mm) stem extensions.

C. End Connections: Threads shall comply with ANSI B1.20.1. Flanges shall comply with ANSI B16.1 for cast-iron valves and with ANSI B16.24 for bronze valves. Solder-joint connections shall comply with ANSI B16.18.

D. One-Piece, Copper-Alloy Ball Valves: Brass or bronze body with chrome-plated bronze ball, PTFE or TFE seats, and 600-psig (4140-kPa) CWP rating.

E. Two-Piece, Copper-Alloy Ball Valves: Bronze body with full-port, chrome-plated bronze ball; PTFE seats; and 600-psig (4140-kPa) minimum CWP rating and blowout-proof stem.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Use ball valves for shutoff duty; globe for throttling duty.

B. Locate valves for easy access and provide separate support where necessary.

C. Install valves for each fixture and item of equipment.

D. Install valves in horizontal piping with stem at or above center of pipe.

E. Install valves in a position to allow full stem movement.

F. Install check valves for proper direction of flow in horizontal position with hinge pin level.

END OF SECTION

SECTION 230593 - TESTING, ADJUSTING, AND BALANCING FOR HVAC

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

A. Submittals:

1. Reference Division 1 “Submittals”
2. Certified TAB reports.
3. Documentation of work performed per ASHRAE 62.1, Section 7.2.2 - "Air Balancing."
4. Documentation of work performed per ASHRAE/IESNA 90.1, Section 6.7.2.3 - "System Balancing."

B. TAB Firm Qualifications: AABC, NEBB or TABB certified.

C. TAB Report Forms: Standard TAB contractor's forms approved by Architect.

D. Perform TAB after leakage and pressure tests on air and water distribution systems have been satisfactorily completed.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine the Contract Documents to become familiar with Project requirements and to discover conditions in systems' designs that may preclude proper TAB of systems and equipment.

B. Examine the approved submittals for HVAC systems and equipment.

C. Examine systems for installed balancing devices, such as test ports, gage cocks, thermometer wells, flow-control devices, balancing valves and fittings, and manual volume dampers. Verify that locations of these balancing devices are accessible.

D. Examine system and equipment installations and verify that field quality-control testing, cleaning, and adjusting specified in individual Sections have been performed.

3.2 GENERAL PROCEDURES FOR TESTING AND BALANCING

A. Perform testing and balancing procedures on each system according to the procedures contained in AABC's "National Standards for Total System Balance" ASHRAE 111, NEBB's "Procedural Standards for Testing, Adjusting, and Balancing of Environmental Systems" SMACNA's "HVAC Systems - Testing, Adjusting, and Balancing" and in this Section.

B. Cut insulation, ducts, pipes, and equipment cabinets for installation of test probes to the minimum extent necessary for TAB procedures. After testing and balancing, patch probe holes in ducts with same material and thickness as used to construct ducts. Install and join new

insulation that matches removed materials. Restore insulation, coverings, vapor barrier, and finish.

C. Mark equipment and balancing devices, including damper-control positions, valve position indicators, fan-speed-control levers, and similar controls and devices, with paint or other suitable, permanent identification material to show final settings.

D. Take and report testing and balancing measurements in inch-pound (IP) units.

E. Testing and balancing shall be performed by a company other than the mechanical system installers/contractor. The name of the firm that the Contractor proposes to engage to perform this Work of balancing the system shall be submitted to the Engineer for approval prior to commencing the Work.

3.3 GENERAL PROCEDURES FOR HYDRONIC SYSTEMS

A. Prepare test reports with pertinent design data; number in sequence starting at pump to end of system. Check the sum of branch-circuit flows against approved pump flow rate.

B. Prepare schematic diagrams of systems' "as-built" piping layouts.

C. Prepare hydronic systems for testing and balancing according to the following, in addition to the general preparation procedures specified above:

1. Open all manual valves for maximum flow.
2. Balance flow to each fan coil and air handler as indicated.

3.4 TOLERANCES

A. Set water flow rates within the following tolerances:

1. Heating-Water Flow Rate: Plus or minus 10 percent.
2. Cooling-Water Flow Rate: Plus or minus 10 percent.

END OF SECTION

SECTION 230700 - HVAC INSULATION

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

A. Submittals:

1. Reference Division 1 “Submittals”
2. Product Data: For each type of product indicated.
3. For adhesives and sealants, documentation including printed statement of VOC content.

B. Quality Assurance: Labeled with maximum flame-spread index of 25 and maximum smoke-developed index of 50 according to ASTM E 84.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Surface-Burning Characteristics:

1. Indoor Insulation and related materials: To be factory labeled designating maximum flame-spread index of 25 or less, and smoke-developed index of 50 or less according to ASTM E 84.
2. Outdoor Insulation and related materials: To be factory labeled designating maximum flame-spread index of 75 or less, and smoke-developed index of 150 or less according to ASTM E 84.

2.2 INSULATION MATERIALS

A. Foam insulation materials shall not use CFC or HCFC blowing agents in the manufacturing process.

B. Flexible Elastomeric: Closed-cell, sponge- or expanded-rubber materials. Comply with ASTM C 534, Type I for tubular materials and Type II for sheet materials.

C. Mineral-Fiber Blanket Insulation: Comply with ASTM C 553, Type II and ASTM C 1290, Type I.

D. Mineral-Fiber Board Insulation: Comply with ASTM C 612, Type IA or Type IB. For duct and plenum applications, provide insulation with factory-applied FSK jacket.

E. Mineral-Fiber, Preformed Pipe Insulation: Comply with ASTM C 547, Type I, Grade A, with factory-applied ASJ.

F. Mineral-Fiber, Pipe and Tank Insulation: Complying with ASTM C 1393, Type II or Type IIIA Category 2, or with properties similar to ASTM C 612, Type IB; and having factory-applied ASJ. Nominal density is 2.5 lb/cu. ft. (40 kg/cu. m) or more. Thermal conductivity (k-value) at 100 deg F (55 deg C) is 0.29 Btu x in./h x sq. ft. x deg F (0.042 W/m x K) or less.

G. Polyolefin Insulation: Unicellular, polyethylene thermal plastic insulation. Comply with ASTM C 534 or ASTM C 1427, Type I, Grade 1 for tubular materials and Type II, Grade 1 for sheet materials.

H. Flexible Elastomeric and Polyolefin Adhesive: Comply with MIL-A-24179A, Type II, Class I.

1. For indoor applications, adhesive shall have a VOC content of 50 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).

I. Mineral-Fiber Adhesive: Comply with MIL-A-3316C, Class 2, Grade A.

1. For indoor applications, adhesive shall have a VOC content of 80 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).

J. Vapor-Barrier Mastic: Water based; suitable for indoor and outdoor use on below ambient services; comply with MIL-PRF-19565C, Type II.

1. For indoor applications, use mastics that have a VOC content of 50 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).

K. Factory-Applied Jackets: When factory-applied jackets are indicated, comply with the following:

1. ASJ: White, kraft-paper, fiberglass-reinforced scrim with aluminum-foil backing; complying with ASTM C 1136, Type I.
2. FSK Jacket: Aluminum-foil, fiberglass-reinforced scrim with kraft-paper backing; complying with ASTM C 1136, Type II.

L. ASJ Tape: White vapor-retarder tape matching factory-applied jacket with acrylic adhesive, complying with ASTM C 1136.

M. FSK Tape: Foil-face, vapor-retarder tape matching factory-applied jacket with acrylic adhesive; complying with ASTM C 1136.

PART 3 - EXECUTION

3.1 INSULATION INSTALLATION

A. Comply with requirements of the Midwest Insulation Contractors Association's "National Commercial & Industrial Insulation Standards" for insulation installation on pipes and equipment.

B. Insulation Installation at Interior Wall and Partition Penetrations (That Are Not Fire Rated): Install insulation continuously through walls and partitions.

C. Insulation Installation at Fire-Rated Wall, Partition, and Floor Penetrations: Install insulation continuously through penetrations. Seal penetrations. Comply with requirements in Section 078413 "Penetration Firestopping."

D. Flexible Elastomeric Insulation Installation:

1. Seal longitudinal seams and end joints with adhesive to eliminate openings in insulation that allow passage of air to surface being insulated.

2. Insulation Installation on Pipe Fittings and Elbows: Install mitered sections of pipe insulation. Secure insulation materials and seal seams with adhesive to eliminate openings in insulation that allow passage of air to surface being insulated.

E. Mineral-Fiber Insulation Installation:

1. Insulation Installation on Straight Pipes and Tubes: Where vapor barriers are indicated, seal longitudinal seams, end joints, and protrusions with vapor-barrier mastic and joint sealant.
2. For insulation with factory-applied jackets on above ambient surfaces, secure laps with outward clinched staples at 6 inches (150 mm) o.c.
3. For insulation with factory-applied jackets on below ambient surfaces, do not staple longitudinal tabs but secure tabs with additional adhesive as recommended by insulation material manufacturer and seal with vapor-barrier mastic and flashing sealant.
4. Blanket and Board Insulation Installation on Ducts and Plenums: Secure with adhesive and insulation pins.
5. For ducts and plenums with surface temperatures below ambient, install a continuous unbroken vapor barrier.

F. Polyolefin Insulation Installation:

1. Seal split-tube longitudinal seams and end joints with adhesive to eliminate openings in insulation that allow passage of air to surface being insulated.
2. Insulation Installation on Pipe Fittings and Elbows: Install mitered sections of polyolefin pipe insulation. Secure insulation materials and seal seams with adhesive to eliminate openings in insulation that allow passage of air to surface being insulated.

G. Plenums and Ducts Requiring Insulation:

1. Concealed and exposed supply and outdoor air.
2. Concealed and exposed return air located in nonconditioned space.
3. Concealed and exposed exhaust between isolation damper and penetration of building exterior.

H. Plenums and Ducts Not Insulated:

1. Metal ducts with duct liner.
2. Factory-insulated plenums and casings.
3. Flexible connectors.
4. Vibration-control devices.
5. Factory-insulated access panels and doors.

I. Piping Not Insulated: Unless otherwise indicated, do not install insulation on the following:

1. Drainage piping located in crawlspaces.
2. Underground piping.
3. Chrome-plated pipes and fittings unless there is a potential for personnel injury.

3.2 DUCT AND PLENUM INSULATION SCHEDULE

A. Concealed duct insulation shall be one of the following:

1. Mineral-Fiber Blanket: 3 inches (75 mm) thick and 0.75-lb/cu. ft. nominal density, R-8.
2. Mineral-Fiber Board: 2 inches (50 mm) thick and 2-lb/cu. ft. (32-kg/cu. m) nominal density, R-8.

B. Exposed duct insulation shall be one of the following:

1. Mineral-Fiber Blanket: 3 inches (75 mm) thick and 0.75-lb/cu. ft. (12-kg/cu. m) nominal density, R-8.
2. Mineral-Fiber Board: 2 inches (50 mm) thick and 3-lb/cu. ft. (48-kg/cu. m) nominal density, R-8.

3.3 HVAC PIPING INSULATION SCHEDULE

A. Heating-Hot-Water Supply and Return: Insulation shall be the following:

1. Mineral-Fiber, Preformed Pipe, Type I: 1.5 inch (38 mm) thick.

B. Refrigerant Suction and Hot-Gas Piping: Insulation shall be the following:

1. Flexible Elastomeric: 1 inch (25 mm) thick.

C. Refrigerant Suction and Hot-Gas Flexible Tubing: Insulation shall be the following:

1. Flexible Elastomeric: 1 inch (25 mm) thick.

END OF SECTION

SECTION 232113 - HYDRONIC PIPING

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

A. Submittals:

1. Reference Division 1 “Submittals”
2. Product Data: For each type of product indicated.
3. For solvent cements and adhesive primers, documentation including printed statement of VOC content.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Hydronic piping components and installation shall be capable of withstanding the following minimum working pressure and temperature:

1. Hot-Water Heating Piping: 150 psig at 200 deg F (93 deg C).
2. Chilled-Water Piping: 125 psig at 150 deg F (93 deg C).

2.2 PIPES, TUBES, AND FITTINGS

A. Hard Copper Tubing: ASTM B 88, Type L (ASTM B 88M, Type B) with ASME B16.22 wrought-copper solder fittings and ASTM B 32, 95-5 tin antimony solder.

B. Flexible Connectors: Stainless-steel bellows with woven, flexible, bronze, wire-reinforcing protective jacket; 150-psig (1035-kPa) minimum working pressure, 250 deg F (121 deg C) maximum operating temperature.

C. Dielectric Nipples: Electroplated steel nipple with inert and noncorrosive, thermoplastic lining; plain, threaded, ends.

2.3 HYDRONIC SPECIALTIES

A. Manual Air Vent: Bronze body and nonferrous internal parts; 150-psig (1035-kPa) working pressure, 225 deg F (107 deg C) operating temperature; manually operated with screwdriver or thumbscrew; with NPS 1/8 (DN 6) discharge connection and NPS 1/2 (DN 15) inlet connection.

B. Y-Pattern Strainers: 125-psig (860-kPa) working pressure; cast-iron body (ASTM A 126, Class B), flanged ends for NPS 2-1/2 (DN 65) and larger, threaded connections for NPS 2 (DN 50) and smaller, bolted cover, perforated Type 304 stainless-steel basket, and bottom drain connection.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Comply with requirements in Section 230500 "Common Work Results for HVAC" for basic piping installation requirements.

B. Install wall penetration system at each service pipe penetration through foundation wall. Make installation watertight. Comply with requirements in Section 230500 "Common Work Results for HVAC" for wall penetration systems.

C. Install piping in concealed locations unless otherwise indicated and except in equipment rooms and service areas.

D. Install piping free of sags and bends and install fittings for changes in direction and branch connections.

E. Use the fewest number of joints belowground and within floor slabs.

F. Install piping at a uniform slope of 0.2 percent upward in the direction of flow.

G. Make reductions in pipe sizes using eccentric reducer fitting installed with level side up.

H. Install branch connections to mains using tee fittings in main with takeoff out the bottom of the main, except for up-feed risers, which shall have swing joint and takeoff out the top of the main line.

I. Install unions in pipes adjacent to each valve, at final connections with each piece of equipment, and elsewhere as indicated.

J. Install flexible connectors at inlet and discharge connections to pumps (except in-line pumps) and other vibration-producing equipment.

K. Remove stems, seats, and packing of valves and accessible internal parts at piping specialties before soldering or brazing.

3.2 VALVE INSTALLATIONS

A. Shutoff Duty: Use ball valves.

B. Install shut-off-duty valves at each branch connection to supply mains, at supply connection to each piece of equipment, and elsewhere as indicated.

C. Install drain valves at low points in mains, risers, branch lines, and elsewhere as required for system drainage, consisting of a tee fitting, NPS 3/4 (DN 20) ball valve, and short NPS 3/4 (DN 20) threaded nipple and cap.

D. Install manual air vents at high points in the system, at heat-transfer coils, and elsewhere as required for system air venting.

E. Install valves with stem up. Allow clearance above stem for check mechanism removal.

3.3 SPECIALTIES INSTALLATIONS

A. Install diaphragm-type compression tanks on floor. Vent and purge air from hydronic system; charge tank with proper air charge to suit system design requirements.

3.4 TESTING, ADJUSTING, AND BALANCING

A. Clean and flush hydronic piping systems. Remove, clean, and replace strainer screens.

B. Hydrostatically test completed piping at a pressure one and one-half times operating pressure. Isolate equipment before testing piping. Repair leaks and retest piping until there are no leaks.

C. Balance water flow as required by Section 230593 "Testing, Adjusting, and Balancing for HVAC."

3.5 PIPING SCHEDULE

A. Aboveground Chilled Water and Hot Water, NPS 2” and Smaller:

1. Drawn-temper copper tubing with soldered joints.

B. Aboveground Chilled Water and Hot Water, NPS 2-1/2” and larger:

1. Flanged or butt welded.
2. Mechanical Pipe Coupling System, Victaulic or equal.

END OF SECTION

Leon Environmental Services

Tommy Leon CAC # 05-3882

March 30, 2026

Shaun Bailey
West Hills Community College District
300 Cherry Lane
Coalinga, CA 93210

Re: Asbestos and Lead Limited Survey
West Hills College – Gordon Hall & Ivan Hall
300 Cherry Lane, Coalinga, CA
Job No. C42-26

Dear Shaun:

Attached is the Asbestos and Lead Limited Survey Report for the above referenced site. The report includes inspection observations; a list of all samples taken, bulk sample analysis results, and recommendations concerning Asbestos and Lead identified at this site.

If you have any questions or need additional information, please do not hesitate to call. Thank you for using Leon Environmental Services. We look forward to working with you in the future.

Respectfully yours,

Tommy Leon
Certified Asbestos Consultant
Certification No. 05-3882

4545 N. Brawley Ave., Suite 104, Fresno, CA 93722
Phone: 559.274.9200 Fax: 559.274.9240 Email: LeonEnviro@leonenviro.com

<u>Asbestos and Lead Limited Survey</u>: West Hill College
Gordon Hall & Ivan Hall, 300 Cherry Lane, Coalinga, CA
C42-26

ASBESTOS ANALYSIS RESULTS

A total of **20** samples of suspect materials were collected by a state certified asbestos inspector from **West Hill College – Gordon Hall & Ivan Hall** at **300 Cherry Lane, Coalinga, CA**. The sample collection areas were determined by the information given to the inspector by **Shaun Bailey** about the impending remodel/renovation that is planned for this building. McCall and Spero Environmental, Inc., a NVLAP accredited laboratory performed a total of **26** analyses from **20** samples collected. The chain of custody from Leon Environmental Services and the report from McCall and Spero contains a full list of all samples taken from this site.

Samples Positive for Asbestos

Sample	Location	Material	% Of ACM	Friable
Gordon Hall				
20	Room #100 – Men's Restroom Ceiling	18x18 Transite Panel	15%	TBD

Samples Negative for Asbestos

Sample	Location	Material	% Of ACM	Friable
Bldg. F Ivan Hall				
01	Room #37 - Women's Restroom Floor	Grout	ND	
02	Room #37 - Women's Restroom Floor	Mortar	ND	
03	Room #37 - Women's Shower Floor	Thin Set	ND	
04	Room #37 - Women's Shower Floor	Vapor Barrier	ND	
05	Room #37 - Women's Restroom Wall	Texture / Color Coat	ND	
		Plaster	ND	
06	Room #37 - Women's Restroom Wall	Plaster	ND	

<u>Asbestos and Lead Limited Survey</u>: West Hill College
Gordon Hall & Ivan Hall, 300 Cherry Lane, Coalinga, CA
C42-26

Gordon Hall				
07	Room #19 - Men's Restroom Wall	Grout	ND	
08	Room #19 - Men's Restroom Wall	Thinset	ND	
09	Room #19 - Men's Restroom Wall	Color Coat	ND	
		Plaster	ND	
10	Room #19 - Men's Restroom Wall	Color Coat	ND	
		Plaster	ND	
11	Room #19 - Men's Restroom Ceiling Panel	Texture / Paint	ND	
		Fiberboard	ND	
12	Room #19 - Men's Restroom Ceiling Panel	Texture / Paint	ND	
		Fiberboard	ND	
13	Room #50 - Men's Restroom Wall	Plaster	ND	
14	Room #50 - Men's Restroom Wall	Vapor Barrier	ND	
15	Room #100 - Men's Restroom Floor	Grout	ND	
16	Room #100 - Men's Restroom Floor	Thinset	ND	
17	Room #100 – Men's Restroom Floor	Mortar	ND	
18	Room #100 – Men's Restroom Wall	Texture / Color Coat	ND	
		Plaster	ND	
19	Room #100 – Men's Restroom Wall	Mortar	ND	

ASBESTOS COMMENTS AND RECOMMENDATIONS

Non-Friable Asbestos

<u>The 18x18 Transite Panel</u> (sample 20) in Room 100, men's restroom ceiling is positive for asbestos at 15%. It is possible this material is in other bathroom ceilings.

These materials are considered a ***non-hazardous non-friable ACM***. It is required that a licensed asbestos abatement contractor remove these materials prior to renovation and or demolition of this structure

ASBESTOS CONCLUSIONS AND REGULATIONS

US EPA NESHAP (40 CFR Part 61)

Based on our survey, sampling and subsequent laboratory analysis and regulatory guidelines affecting this site, the types of ACM identified on the previous page require removal (in most cases) prior to demolition and/or renovation procedures to comply with local, state and federal agencies. The US EPA NESHAP (40 CFR Part 61 – November 20, 1990) requires materials containing greater than one percent asbestos be removed prior to renovation or demolition. If those materials are friable or likely to become friable due to the forces expected to act upon them during renovation or demolition, they become a regulated asbestos containing material (RACM) and require a 10-day notification to the local Air Pollution Control District prior to abatement.

Non-friable and non-regulated ACM, in most cases, may be disposed of as a Non-Hazardous waste in a landfill that accepts Asbestos Containing Materials. All friable waste containing more than 1% asbestos (RACM) should be manifested as hazardous waste for disposal purposes.

CAL OSHA--------Construction Industry--------8CCR, 1529

Cal/OSHA worker health and safety regulations apply during any disturbance of ACM by a person while in the employ of another. This is true regardless of friability or quantity disturbed. If there is greater than 100 square feet of ACM which will be affected by the demolition, a California Licensed Contractor who is registered with Cal/OSHA for asbestos is required. The regulations regarding asbestos are found in Title 8 CCR Section 1529, and also include formal notification requirements to Cal/OSHA at least 24 hours prior to removal. It is required that removal be conducted with the material kept in a wetted state to contain dust and hazardous emissions.

The construction industry standard covers employees engaged in demolition and construction, and the following related activities likely to involve asbestos exposure: removal, encapsulation, alteration, repair, maintenance, insulation, spill emergency cleanup, transportation, disposal and storage of ACM.

Demolition contractors typically require that a building owner/operator accept responsibility for removal of all ACM found during the building inspection prior to start of demolition activities.

LEAD BASED PAINT ANALYSIS RESULTS

A total of **05** paint chip samples were collected by a state certified Lead Inspector. The sample collection areas were determined by the information given to the inspector by **Shaun Bailey** about the impending remodel/renovation that he has planned for this building. All lead paint samples were analyzed by Atomic Absorption via EPA method SW-846 7420M by Eurofins EPK Built Environment Testing, LLC. Results are reported in percent by weight.

Sample	Location	Material	Reporting Limit	%Pb By Weight	LBP
L01	Room 100 Men's RR - Floor	Beige Ceramic Tile	0.0039%	<0.0039%	No
L02	Room 100 Men's RR	Blue Ceramic Tile	0.0038%	<0.0038%	No
L03	Room 19 Men's RR – Wall	Blue Ceramic Tile	0.0039%	<0.0039%	No
L04	Room 37	Green Ceramic Tile	0.0039%	<0.0039%	No
L05	Room 37 Women's RR – Floor	Ceramic Tile	0.0039%	<0.0039%	No

BRL – Below Reportable Limits

LBP COMMENTS AND RECOMMENDATIONS

All paint chip samples tested for this survey were lower than the 0.5% by weight level established by HUD to be considered a Lead Based Paint (LBP). All homes built prior to 1978 are assumed to contain Lead Based Paint. Although limited paint chip samples came back negative for Lead, Lead safe work practices should be in place during any construction or demolition that would affect these areas.

The federal and CALOSHA regulations for lead in construction do not specify a level of a lead in paint that classifies it as LBP. However, federal and state OSHA regulations specify ***airborne lead levels*** that should not be exceeded during construction without appropriate protection and training.

The action level for lead is 30 micrograms per cubic meter of air (µg/m³) and the permissible exposure limit (PEL) is 50µg/m³. These airborne lead levels can be exceeded during construction or demolition activities such as scraping, sanding,

grinding, blasting, and torching LBP surfaces, even when levels of lead in paint are far below the HUD definition of LBP of 1.0 mg/cm² or 0.5 percent lead by weight.
OSHA Lead in Construction Standard Cal/OSHA 8 CCR 1532.1 shall apply whenever construction work is conducted where employees may be exposed to lead.

Beginning April 2010, new federal law **(EPA RRP rule)** will require that contractors performing renovation, repair and painting projects that disturb lead-based paint in homes, child care facilities and schools built before 1978 that a child under age six visits regularly to be certified and follow specific work practices to prevent lead contamination. Also, beginning April 2010, federal law will require contractors that disturb lead-based paint in homes, child care facilities and schools, built before 1978 to be certified and follow specific work practices to prevent lead contamination.

LBP Conclusions and Regulations

All lead paint samples were analyzed by Atomic Absorption via EPA method SW-846 7420M. Results are reported in weight percent.
The Department of Housing and Urban Development (HUD) considers a paint to be a lead-based paint hazard when the content of the paint exceeds 0.5% or 5000 ppm.
California Occupational Safety and Health (OSHA) regulations require employee personnel monitoring at any detectable levels until statistically reliable results indicate that exposure will remain consistently below the OSHA Action Level of 30 micrograms/m3 and the Permissible Exposure Level of 50 micrograms/m3 for an 8 hour day. The employer must then produce a “Negative Exposure Assessment” to indicate that it is not possible with the specific lead-based paint product to create excessive lead exposure levels.

Limitations of Liability

Conclusions and recommendations presented in this report are qualitative judgments based on the prevailing regulations and accepted industry standards at the time of the report issuance. Leon Environmental Services provides no other guarantees, either expressed or implied. All quantities of materials listed herein are estimates for sampling purposes only and should be verified by Owner representative or an abatement / demolition contractor prior to asbestos abatement or demolition.

The nature of demolition is such that materials can be uncovered which previously were unknown to exist. Therefore, Leon Environmental Services cannot be responsible for materials not previously detected due to lack of accessibility or concealment, although every effort was made during the inspection to detect all suspect materials. If any suspect materials other than those included herein are discovered during renovation or demolition, it must be assumed that the materials are asbestos containing and should be treated accordingly until further testing and analysis is performed.

<u>Asbestos and Lead Limited Survey</u>: West Hill College
Gordon Hall & Ivan Hall, 300 Cherry Lane, Coalinga, CA
C42-26

The data interpretations and recommendations are based solely on information available to Leon Environmental Services at the time of our inspection. The customer recognizes that site conditions or accessibility may vary from those encountered at the time of our inspection and sample collection. Varying conditions or access could result in additional information that would lead us to revise conclusions and recommendations. Leon Environmental Services will not be responsible for the interpretation or use by others of information contained within this report.

Thomas M. Leon Digitally signed by Thomas M. Leon
Date: 2026.04.02 19:12:31 -07'00'

Thomas Leon Date
Certified Asbestos Consultant
Certification No. 05-3882
State of California Department of Public Health
Lead Inspector Assessor # LRC-00002505

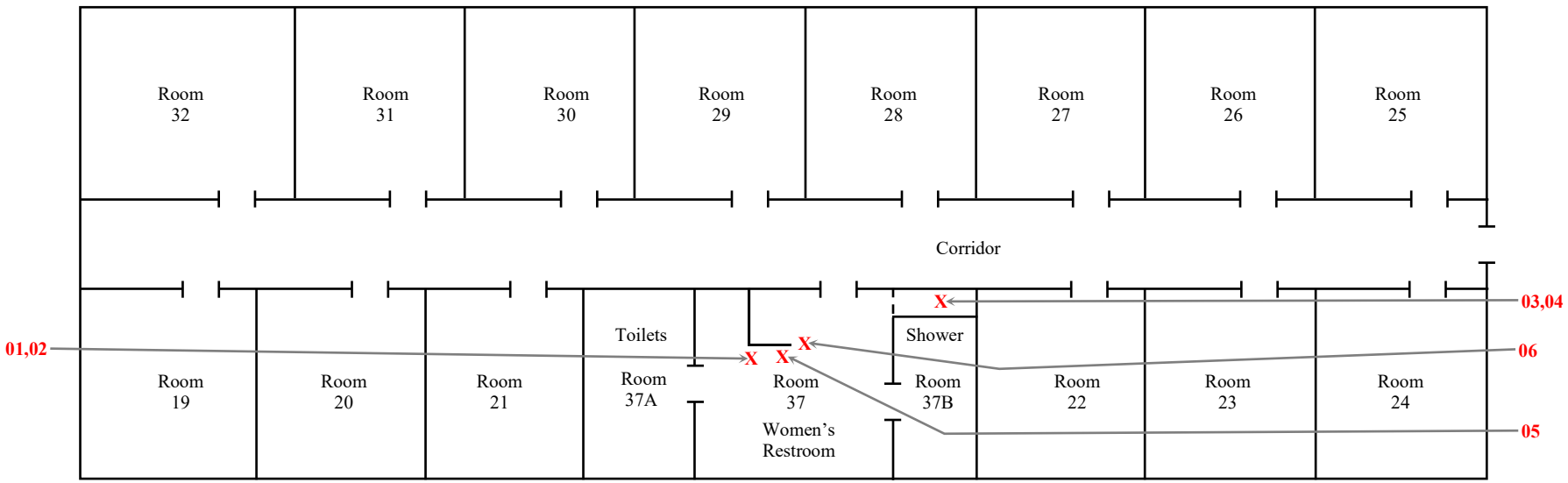
*Abbreviation Key:

Asbestos Containing Material — ACM (equal to or greater than 0.1% by weight)
Vinyl Asbestos Tile – VAT
No Asbestos Detected--N.A.D or N.D.
Homogeneous—H
Not Sampled—NS

Leon Environmental Services

Tommy Leon CAC Certification No. 05-3882

C42-26 / Sample Location Diagram
Ivan's Hall / 300 Cherry Lane, Coalinga, CA
Shaun Bailey / West Hills Community College District
Drawing not to Scale



X = Interior Samples
Y = Exterior Samples
R = Roof Samples

N

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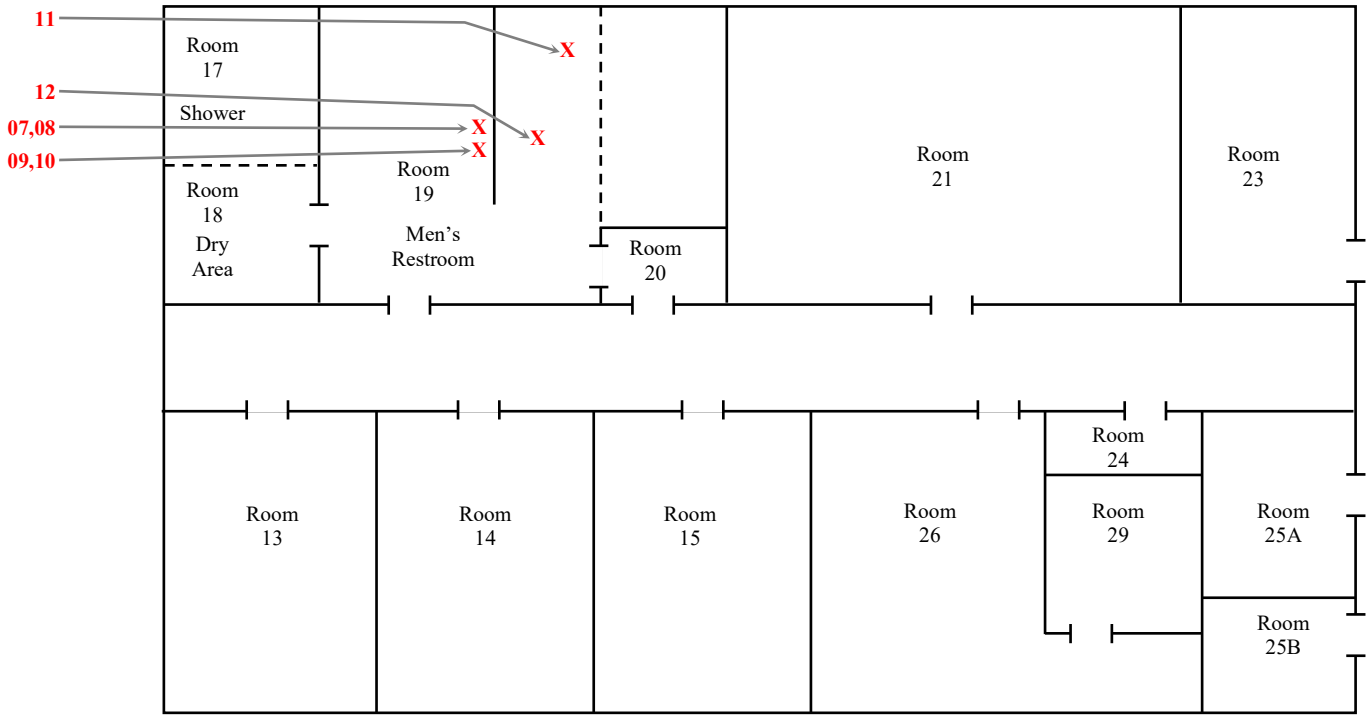
Leon Environmental Services

Tommy Leon CAC Certification No. 05-3882

C42 - 26 / Sample Location Diagram
Gordon Hall (1st Floor) / 300 Cherry Lane, Coalinga, CA
Shaun Bailey / West Hills Community College District
Drawing not to Scale



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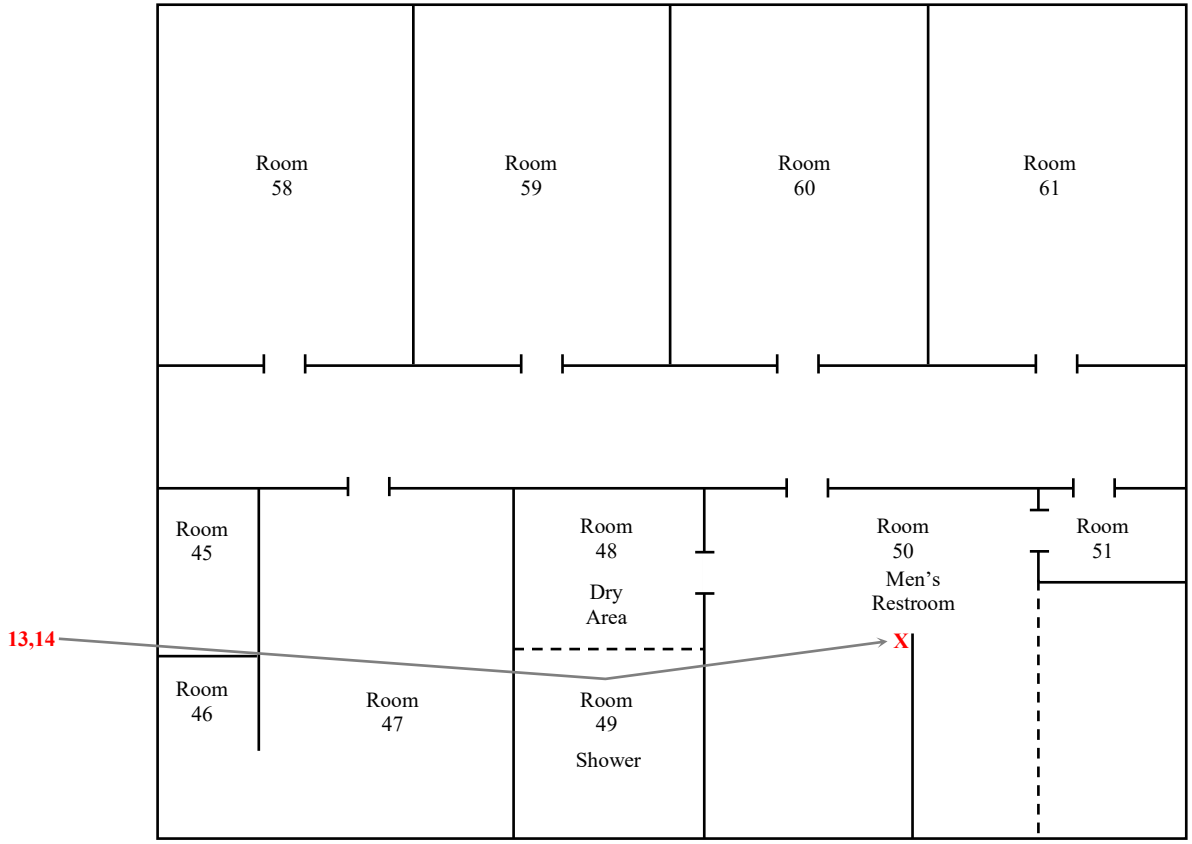
C42 -26 / Sample Location Diagram
Gordan Hall (1st Floor) / 300 Cherry Lane, Coalinga, CA
Shaun Bailey / West Hills Community College District
Drawing not to Scale



X = Interior Samples
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R = Roof Samples

N

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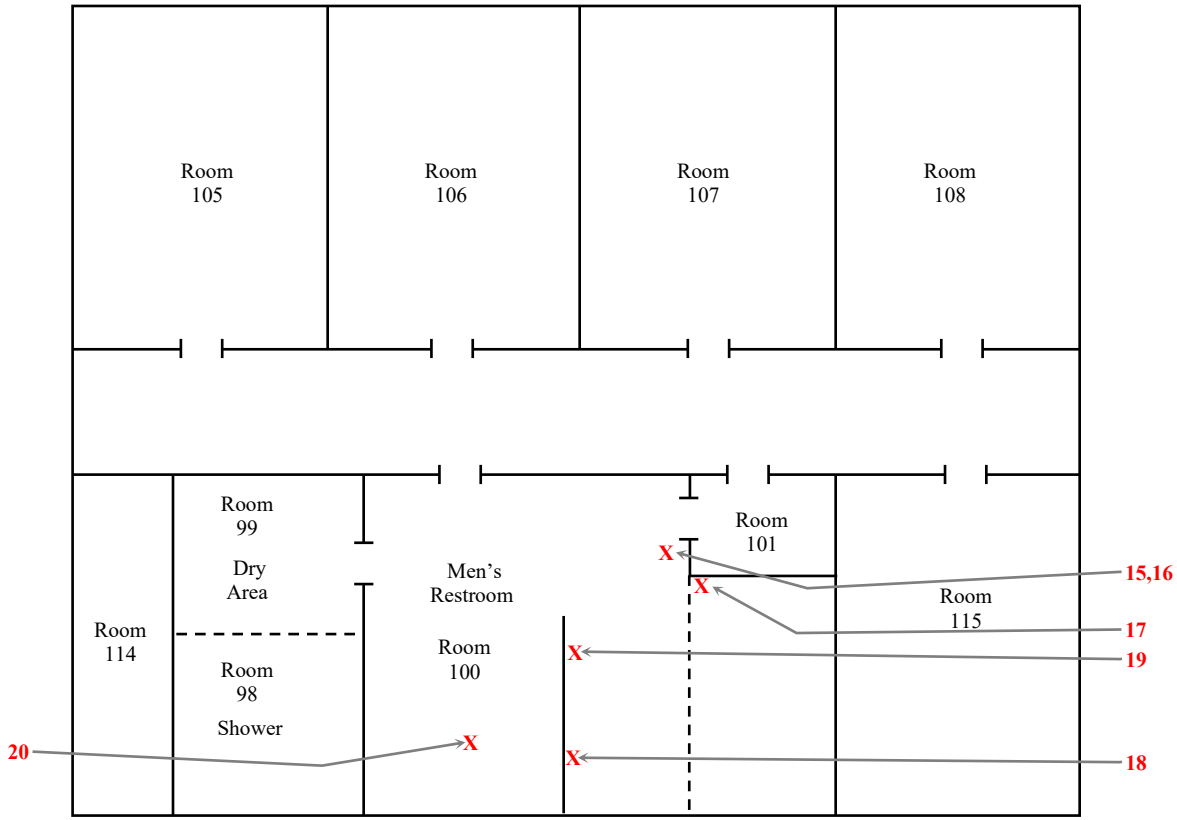
C42 -26 / Sample Location Diagram
Gordon Hall (2nd Floor) / 300 Cherry Lane, Coalinga, CA
Shaun Bailey / West Hills Community College District
Drawing not to Scale



X = Interior Samples
Y = Exterior Samples
R = Roof Samples

N

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McCall and Spero
Environmental, Inc.
Specialists in Microanalysis

1831 Williamson Court • Suite 100 • Louisville, KY 40223
Phone (502) 244-7135 • FAX (502) 244-7136
E-mail: customerservice@mselabs.com • Website: www.mselabs.com

Date: March 27, 2026

Attention: Tommy Leon
Leon Environmental Services

Subject: Analysis of bulk samples for asbestos mineral fibers by Polarized Light Microscopy (PLM) with Dispersion Staining (EPA/600/R-93/116)

RE: MSE-P3256LEO
Shaun Bailey, West Hills Community College District - West Hills College: 300 Cherry Lane; Coalinga, CA Project
LEO# C42-26

Dear Mr. Leon:

McCall & Spero Environmental, Inc. has completed the analysis of the bulk samples we received from your offices on March 25, 2026. These samples represent the bulk samples from the Shaun Bailey, West Hills Community College District - West Hills College: 300 Cherry Lane; Coalinga, CA Project.

The PLM bulk analysis was performed according to the "Method of the Determination of Asbestos in Bulk Building Materials", R. L. Perkins and B. W. Harvey (EPA/600/R-93/116). EPA Interim Method for the Determination of Asbestos in Bulk Insulation Samples as found in 40 CFR, Part 763, Subpart E, Appendix E.

The results for the twenty-six (26) samples are summarized in the following report. Please note that for samples consisting of two or more distinct components, each component is analyzed and reported individually (EPA 40 CFR Part 61 [FRL-4821-71]).

Thank you for consulting McCall & Spero Environmental, Inc. Should you have any questions concerning these results, please contact our office.

Sincerely,

Kevin R. Bean, B.A.
PLM Laboratory Director

NVLAP®
TESTING
NVLAP LAB CODE 101895-0

SUMMARY OF PLM BULK ANALYSIS RESULTS

Project Name: Shaun Bailey, West Hills Community College District - West Hills College: 300 Cherry Lane; Coalinga, CA Project
McCall & Spero Environmental Project No. MSE-P3256LEO

MSE # P3256LEO	SAMPLE # DESCRIPTION	ASBESTOS TYPE & %	OTHER FIBROUS MATERIAL & %	% NON-FIBROUS MATERIAL	COLOR
001	01 Grout	ND	Cellulose / 2%	98%	Gray
002	02 Mortar	ND	Cellulose / 2%	98%	Gray
003	03 Thinset	ND	Cellulose / 2%	98%	Gray
004	04 Vapor Barrier	ND	Cellulose / 20% Glass / 10%	70%	Black
005 (A)	05 (A) Texture / Color Coat	ND	Cellulose / 2%	98%	White
005 (B)	05 (B) Plaster	ND	Cellulose / 2% Hair / 2%	96%	Gray
006	06 Plaster	ND	Cellulose / 2% Hair / 2%	96%	Gray
007	07 Grout	ND	Cellulose / 2%	98%	White
008	08 Thinset	ND	Cellulose / 3%	97%	Gray
009 (A)	09 (A) Color Coat	ND	Cellulose / 2%	98%	White
009 (B)	09 (B) Plaster	ND	Cellulose / 2% Hair / 2%	96%	Gray
010 (A)	10 (A) Color Coat	ND	Cellulose / 2%	98%	White
010 (B)	10 (B) Plaster	ND	Cellulose / 2% Hair / 2%	96%	Gray
011 (A)	11 (A) Texture / Paint	ND	Cellulose / 3%	97%	White

SUMMARY OF PLM BULK ANALYSIS RESULTS

MSE # P3256LEO	SAMPLE # DESCRIPTION	ASBESTOS TYPE & %	OTHER FIBROUS MATERIAL & %	% NON-FIBROUS MATERIAL	COLOR
011 (B)	11 (B) Fiber Board	ND	Cellulose / 90%	10%	Tan
012 (A)	12 (A) Texture / Paint	ND	Cellulose / 3%	97%	White
012 (B)	12 (B) Fiber Board	ND	Cellulose / 90%	10%	Tan
013	13 Plaster	ND	Cellulose / 2% Hair / 2%	96%	Gray
014	14 Vapor Barrier	ND	Cellulose / 70%	30%	Tan
015	15 Grout	ND	Cellulose / 2%	98%	White
016	16 Thinset	ND	Cellulose / 2%	98%	Gray
017	17 Mortar	ND	Cellulose / 2%	98%	Gray
018 (A)	18 (A) Texture / Color Coat	ND	Cellulose / 2%	98%	White
018 (B)	18 (B) Plaster	ND	Cellulose / 2%	98%	White
019	19 Mortar	ND	Cellulose / 2%	98%	Gray
020	20 Transite Panel	CH / 15%	ND	85%	Gray

SUMMARY OF PLM BULK ANALYSIS RESULTS

NOTES:

ND = None Detected	CH = Chrysotile	A = Amosite	AC = Actinolite
CR = Crocidolite	AN = Anthophyllite	TR = Tremolite	

For samples consisting of separate components, each component is analyzed and reported separately.

Results apply only to items tested. Quantification is accurate to within ± 10%. Results from this report must not be reproduced, except in full, with the approval of McCall & Spero Environmental, Inc. This report must not be used to claim product endorsement by NVLAP or any agency of the U.S. Government.

** EPA recommends that bulk materials found negative for asbestos or less than one percent asbestos by polarized light microscopy that fall into one of five dominantly nonfriable categories be reanalyzed by an additional method, such as transmission electron microscopy. (EPA Notice of Advisory, FR Vol. 59, No. 146 & Test Method EPA 600/ R-93/ 116). EPA Interim Method for the Determination of Asbestos in Bulk Insulation Samples as found in 40 CFR, Part 763, Subpart E, Appendix E.

Analyst: Kevin R. Bean, B.A.

Leon Environmental Services

4545 N. Brawley Ave., Suite 104, Fresno, CA 93722 Phone: 559.274.9200 Fax: 559.274.9240 Email: LeonEnviro@comcast.net

Customer: Shaun Bailey **Company** West Hills Community College District

Date: March 24, 2026 **Job No.** C42-26

Analysis PLM **Turn Around:** Rush Same Day Next Day 2-3 Day 4-5 days

Inspection Site : West Hills College, 300 Cherry Lane, Coalinga, CA

Sample No	Location	Material			Quantity
		Color	Type	Friable	
	Bldg F Ivan Hall				
01	Room #37 - Women's Restroom Floor		Grout		
02	Room #37 - Women's Restroom Floor		Mortar		
03	Room #37 - Women's Shower Floor		Thin Set		
04	Room #37 - Women's Shower Floor		Vapor Barrier		
05	Room #37 - Women's Restroom Wall		Texture / Color Coat		
	Room #37 - Women's Restroom Wall		Plaster		
06	Room #37 - Women's Restroom Wall		Plaster		
	Gordon Hall				
07	Room #19- Men's Restroom Wall		Grout		
08	Room #19 - Men's Restroom Wall		Thinset		
09	Room #19 - Men's Restroom Wall		Colorcoat		
	Room #19 - Men's Restroom Wall		Plaster		
10	Room #19 - Men's Restroom Wall		Colorcoat		
	Room #19 - Men's Restroom Wall		Plaster		
11	Room #19 - Men's Restroom Ceiling Panel		Texture / Paint		3x3 Panel
	Room #19 - Men's Restroom Ceiling Panel		Fiberboard		3x3 Panel
12	Room #19 - Men's Restroom Ceiling Panel		Texture / Paint		3x3 Panel
	Room #19 - Men's Restroom Ceiling Panel		Fiberboard		3x3 Panel

Relinquished By Tony Leon Date 3-24-26

Received By [illegible] Date 3/25/26

Leon Environmental Services

4545 N. Brawley Ave., Suite 104, Fresno, CA 93722 Phone: 559.274.9200 Fax: 559.274.9240 Email: LeonEnviro@comcast.net

Customer: Shaun Bailey **Company** West Hills Community College District

Date: March 24, 2026 **Job No.** C42-26

Analysis PLM **Turn Around:** Rush Same Day Next Day 2-3 Day 4-5 days

Inspection Site : West Hills College, 300 Cherry Lane, Coalinga, CA

Sample No	Location	Material			Quantity
		Color	Type	Friable	
13	Room #50 - Men's Restroom Wall		Plaster		
14	Room #50 - Men's Restroom Wall		Vapor Barrier		
15	Room #100 - Men's Restroom Floor		Grout		
16	Room #100 - Men's Restroom Floor		Thinset		
17	Rm #100 - Men's Restroom Floor		Mortar		
18	Room #100 - Men's Restroom Wall		Texture / Color Coat		
	Rm #100 - Men's Restroom Wall		Plaster		
19	Room #100 - Men's Restroom Wall		Mortar		
20	Room #100 - Men's Restroom Ceiling		18x18 Transite Panel		

Relinquished By Tony Lee Date 3-24-26

Received By [illegible] Date 3/25/26

eurofins | Built Environment Testing

Report for:

Tommy Leon
Leon Environmental
4545 N. Brawley Ave., Suite 104
Fresno, CA 93722

Regarding: Eurofins Built Environment Testing West, LLC
Project: C42-26; West Hills Community College-300 Cherry Lane, Coalinga CA
EML ID: 4466962

Approved by:

Approved Signatory
Philip Newton

Dates of Analysis:
Lead - Flame AA: 03-25-2026

Service SOPs: Lead - Flame AA (EB-BC-S-8443)
AIHA LAP, LLC accredited service, Lab ID #178697

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. Due to the nature of the analyses performed, field blank correction of results is not applied. The results relate only to the samples as received and tested. Sample size, as it relates to Wipe samples only, is supplied by the client.

Eurofins Built Environment Testing West, LLC ("the Company"), a member of the Eurofins Built Environment Testing group of companies, shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.
Eurofins Built Environment Testing West, LLC's LabServe® reporting system includes automated fail-safes to ensure that all AIHA LAP, LLC quality requirements are met and notifications are added to reports when any quality steps remain pending.

Eurofins Built Environment Testing West, LLC
2841 Dow Avenue, Suite 300, Tustin, CA 92780
(833) 465-5857 www.eurofinsus.com/Built

Client: Leon Environmental
C/O: Tommy Leon
Re: C42-26; West Hills Community College-300
Cherry Lane, Coalinga CA

Date of Sampling: 03-24-2026
Date of Receipt: 03-25-2026
Date of Report: 03-25-2026

LEAD: FLAME ATOMIC ABSORPTION SPECTROMETRY

Location:	01: Room 100 Men's RR Floor/ Beige Ceramic Tile	02: Room 100 Men's RR/Blue Ceramic Tile	03: Room 19 Men's RR Wall/Blue Ceramic Tile	04: Room 37/ Green Ceramic Tile	05: Room 37 Women's RR Floor/Ceramic Tile
Comments (see below)	A	A	A	A	A
Lab ID-Version‡:	22446323-1	22446324-1	22446325-1	22446327-1	22446328-1
Analysis Date:	03/25/2026	03/25/2026	03/25/2026	03/25/2026	03/25/2026
Sample type	Bulk sample	Bulk sample	Bulk sample	Bulk sample	Bulk sample
Method*	NIOSH 7082 & EPA 7000B modified	NIOSH 7082 & EPA 7000B modified	NIOSH 7082 & EPA 7000B modified	NIOSH 7082 & EPA 7000B modified	NIOSH 7082 & EPA 7000B modified
† Method Reporting Limit	0.0039%	0.0038%	0.0039%	0.0039%	0.0039%
Sample size	0.2566 grams	0.2598 grams	0.2583 grams	0.2597 grams	0.2595 grams
§Total Lead Result	< 0.0039%	< 0.0038%	< 0.0039%	< 0.0039%	< 0.0039%
Summary	N/A	N/A	N/A	N/A	N/A

Comments: A) The relative percent difference of the matrix duplicate pair was above control limits. The laboratory control sample and matrix blank were both within control limits and validated the batch.

Sample results have not been corrected for blank values.

Bulk samples are not covered under the AIHA LAP, LLC service accreditation.

Wipe samples must meet ASTM E1792 criteria. Method Reporting Limits may not be valid for non-ASTM E1792 wipe samples.

*Sample preparation and analytical methods are based upon NIOSH 7082 and EPA 7000B.

¥ Guidelines for the HUD/EPA lead-based paint disclosure rule state that 0.5 % by weight or 1.0 mg/cm² is the definition of a lead-based paint.

† The Method Reporting Limit is the minimum concentration of Lead that the laboratory can confidently detect in the sample.

§ Total Lead Result has been rounded to two significant figures to reflect analytical precision.

‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Eurofins Built Environment Testing West, LLC
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(833) 465-5857 www.eurofinsus.com/Built

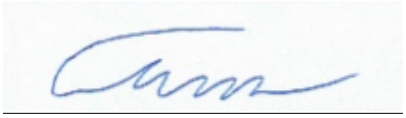
Client: Leon Environmental
C/O: Tommy Leon
Re: C42-26; West Hills Community College-300 Cherry Lane, Coalinga CA

Date of Sampling: 03-24-2026
Date of Receipt: 03-25-2026
Date of Report: 03-25-2026

LEAD: FLAME ATOMIC ABSORPTION SPECTROMETRY

PROJECT ANALYST AND SIGNATORY REPORT

Project Analyst



Analyst: Alex Nguyen

The test report shall not be reproduced except in full, without written approval of the laboratory. The report must not be used by the client to claim product certification, approval, or endorsement by AIHA LAP, LLC, or any agency of the federal government. The Company reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.

‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".